BEAVERTAIL STATE PARK MASTER PLAN

DEM
RHODE ISLAND

BETA
IMPROVING COMMUNITIES TOGETHER

BETA
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01 Beavertail State Park - Property Deeds

QUITCLAIM DEED

The UNITED STATES OF AMERICA, acting by and through the Deputy Regional Director, Northeast Region, Bureau of Outdoor Recreation, with offices at 1421 Cherry Street, Philadelphia, Pennsylvania, pursuant to authority delegated by the Secretary of the Interior, and as authorized by the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), as amended, and particularly as amended by Public Law 91-485 (84 Stat. 1084), and regulations and orders promulgated thereunder (hereinafter referred to as Grantor), for and in consideration of the use and maintenance of the property herein conveyed for public park or public recreation purposes in perpetuity by the Town of Jamestown, Rhode Island (hereinafter referred to as Grantee), does hereby remise, release, and quitclaim to Grantee, its successors and assigns, subject to the reservations, exceptions, restrictions, conditions, and covenants hereinafter set forth, all right, title, and interest of the Grantor in and to the following described property situated in the Town of Jamestown, County of Newport, State of Rhode Island, and more particularly described as follows:

> Beginning at a point on a Rhode Island highway bound on the northerly side of Beavertail Point Road, said point being 182.5 feet, more or less, from the mean high water mark of Narragansett Bay and 162.54 feet from a spike set in the ledge in the said northerly side of Beavertail Point Road, both distances being measured along the said northerly side of Beavertail Point Road; Thence the following courses and distances along the easterly side of said Beavertail Point Road: (1) by the arc of a curve to the right having a radius of 112.30 feet a distance of 140.80 feet; (2) northerly, 248.86 feet; (3) by the arc of a curve to the right having a radius of 200.81 feet a distance of 267.14 feet; (4) northeasterly, 337.11 feet; (5) by the arc of a curve to the left having a radius of 337.94 feet, a distance of 209.50 feet; (6) northerly 799.36 feet; Thence southeasterly along a line which forms an interior angle of 46° 15' 30" with the last described line, a distance of 383.39 feet; Thence continuing southeasterly along a line which forms an interior angle of 195° 55' 15" with the last described line, a distance of 620 feet, more or less, to the mean high water mark of Narragansett Bay; Thence along the mean high water mark of Narragansett Bay in a general southwesterly direction to the northerly side of Beavertail Point Road; Thence northwesterly along the said northerly side of Beavertail Point Road 182.5 feet, more or less, to a Rhode Island highway bound and point of beginning.
>
> The property herein conveyed contains 20 acres, more or less, and was formerly a portion of the Naval Communication Station, N-RI-467, under the administrative jurisdiction of the Department of the Navy, an agency of the United States Government.

SUBJECT TO any and all outstanding reservations, easements and rights-of-way, recorded and unrecorded, for public roads, railroads, pipelines, drainage ditches, sewer mains and lines, and public utilities affecting the property herein conveyed.

TO HAVE AND TO HOLD the above premises, subject to the easements, reservations, exceptions, restrictions, conditions, and covenants herein enumerated and set forth, unto the Grantee, its successors and assigns, forever.

There are excepted from this conveyance and reserved to the Grantor all oil, gas, and other minerals in, under, and upon the lands herein conveyed, together with the right to enter upon the land for the purpose of mining and removing the same.

The Grantor further reserves an easement in, on, over, under and across a fifteen (15) foot wide strip of land running parallel and immediately to the east of Beavertail Point Road, for the purpose of installation, maintenance, repair and relocation of underground power lines.

The Grantor also reserves rights of ingress and egress to the property herein conveyed for the purpose of maintaining the existing overhead electric power lines and poles serving the Coast Guard Station, Beavertail Point and Brenton Reef Light Tower.

The Grantee agrees for itself, its successors and assigns, that the property herein conveyed shall be subject to the following restrictions as to use and occupancy which shall run with the land:

(a) No equipment shall be used which may interfere with the effective operation of the transmitting facility of the Naval Communication Station Newport, Newport, Rhode Island, including but not limited to generators, power transformer stations, and other heavy industrial equipment.

(b) No structure higher than twenty-five (25) feet shall be erected.

(c) Construction plans for buildings, ramps, roads, and other structures, shall be submitted by the Grantee to the Commanding Officer, Naval Communication Station Newport, Newport, Rhode Island, prior to construction, for said officer's review and approval.

Pursuant to authority contained in the Federal Property and Administrative Services Act of 1949, as amended, and applicable rules, regulations and orders promulgated thereunder, the General Services Administration determined the property to be

surplus to the needs of the United States of America and assigned the property to the Department of the Interior for conveyance to the Town of Jamestown, Rhode Island.

It is understood and agreed by and between the Grantor and Grantee, and Grantee by acceptance of this deed does acknowledge that it fully understands the terms and conditions set forth herein and does further covenant and agree for itself, and its successors and assigns, forever, as follows:

1. The property shall be used and maintained for the public purposes for which it was conveyed in perpetuity as set forth in the program of utilization and plan contained in the application submitted by Grantee on the 30th day of November, 1972, which program and plan may be amended from time to time at the request of either the Grantor or Grantee, with the written concurrence of the other party, and such amendments shall be added to and become a part of the original application.

2. The Grantee shall erect, at its own cost and expense, a fence not less than six (6) feet in height on the northern boundary of the property herein conveyed. Said fence and any and all other construction relating thereto shall consist of materials which are non-metallic in composition.

3. The Grantee shall indemnify and save the Grantor harmless from any and all claims for property damage, death, or bodily injury to persons using or occupying the premises herein conveyed, which may arise out of the operation of the high power transmitters at Beavertail Point or the use of any other Government facilities adjacent to or near the granted premises.

4. The Grantee shall within 6 months of the date of this deed erect and maintain a permanent sign or marker near the point of principal access to the conveyed area indicating that the property is a park or recreational area and has been acquired from the Federal Government for use by the general public.

5. The property shall not be sold, leased, assigned, or otherwise disposed of except to another eligible governmental agency that the Secretary of the Interior agrees in writing can assure the continued use and maintenance of the property for public use or public recreational purposes subject to the same terms and conditions in the original instrument of conveyance. However, nothing in this provision shall

preclude the Grantee from providing related recreational facilities and services compatible with the approved application, through concession agreements entered into with third parties, provided prior concurrence to such agreements is obtained in writing from the Secretary of the Interior.

6. From the date of this conveyance, the Grantee, its successors and assigns, shall submit biennial reports to the Secretary of the Interior, setting forth the use made of the property during the preceding two-year period, and other pertinent data establishing its continuous use for the purposes set forth above, for ten consecutive reports and as further determined by the Secretary of the Interior.

7. If at any time the United States of America shall determine that the premises herein conveyed, or any part thereof, are needed for the national defense, all right, title, and interest in and to said premises, or part thereof determined to be necessary to such national defense, shall revert to and become the property of the United States of America.

8. As part of the consideration for this deed, the Grantee covenants and agrees for itself, its successors and assigns, that (1) the program for or in connection with which this deed is made will be conducted in compliance with, and the Grantee, its successors and assigns, will comply with all requirements imposed by or pursuant to the regulations of the Department of the Interior as in effect on the date of this deed (43 C.F.R. Part 17) issued under the provisions of Title VI of the Civil Rights Act of 1964; (2) this covenant shall be subject in all respects to the provisions of said regulations; (3) the Grantee, its successors and assigns, will promptly take and continue to take such action as may be necessary to effectuate this covenant; (4) the United States shall have the right to seek judicial enforcement of this covenant; and (5) the Grantee, its successors and assigns, will (a) obtain from each other person (any legal entity) who through contractual or other arrangements with the Grantee, its successors or assigns, is authorized to provide services or benefits under said program, a written agreement pursuant to which such other persons shall, with respect to the services or benefits which he is authorized to provide, undertake for himself the same

obligations as those imposed upon the Grantee, its successors and assigns, by this covenant, and (b) furnish a copy of such agreement to the Secretary of the Interior, or his successor; and that this covenant shall run with the land hereby conveyed, and shall in any event, without regard to technical classification or designation, legal or otherwise, be binding to the fullest extent permitted by law and equity for the benefit of, and in favor of the Grantor and enforceable by the Grantor against the Grantee, its successors and assigns.

9. In the event there is a breach of any of the conditions and covenants herein contained by the Grantee, its successors and assigns, whether caused by the legal or other inability of the Grantee, its successors and assigns, to perform said conditions and covenants, or otherwise, all right, title, and interest in and to the said premises shall revert to and become the property of the Grantor at its option, which in addition to all other remedies for such breach shall have the right of entry upon said premises, and the Grantee, its successors and assigns, shall forfeit all right, title, and interest in said premises and in any and all of the tenements, hereditaments, and appurtenances thereunto belonging; provided, however, that the failure of the Secretary of the Interior to require in any one or more instances complete performance of any of the conditions or covenants shall not be construed as a waiver or relinquishment of such future performance, but the obligation of the Grantee, its successors and assigns, with respect to such future performance shall continue in full force and effect:

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed in its name and on its behalf this the 11th day of July, 1973.

UNITED STATES OF AMERICA

BY Jeffrey M. Olivier

Deputy Regional Director
Northeast Region
Bureau of Outdoor Recreation
1421 Cherry Street
Philadelphia, Pennsylvania

Town Clerk
Received for record in Jamestown, R. I.
August 20, 1973 at 3:20 P.M.
Rosamond A. Tefft

STATE OF Pennsylvania)
) ss
COUNTY OF Philadelphia)

On this 11th day of July, 1973, before me, the subscriber, personally appeared Anthony M. Corbisiero, to me known and known to me to be the Deputy Regional Director, Northeast Region, Bureau of Outdoor Recreation of the United States Department of the Interior, a governmental agency of the United States of America, with offices at 1421 Cherry Street, Philadelphia, Pennsylvania, and known to me to be the same person described in and who executed the foregoing instrument as such Deputy Regional Director aforesaid, as the act and deed of the United States of America, for and on behalf of the Secretary of the Interior, duly designated, empowered and authorized so to do by said Secretary, and he acknowledged that he executed the foregoing instrument for and on behalf of the United States of America, for the purposes and uses therein described.

Carol Ann Beecher
NOTARY PUBLIC

My Commission Expires:
CAROL ANN BEECHER, NOTARY PUBLIC
PHILADELPHIA, PHILADELPHIA COUNTY
MY COMMISSION EXPIRES OCT 13 1975
Member, Pennsylvania Association of Notaries

The foregoing conveyance is hereby accepted and the undersigned agrees, by this acceptance to assume and be bound by all the obligations, conditions, covenants, and agreements therein contained.

TOWN OF JAMESTOWN, RHODE ISLAND
By Albert B. Lyons
Town Council Pres.
Title

STATE OF RHODE ISLAND)
) ss
COUNTY OF Newport)

On this the 20th day of August, 1973 before me, the undersigned officer, personally appeared Albert B. Lyons, President of the Town Council, of the Town of Jamestown, Rhode Island, known to me to be the person described in the foregoing instrument, and acknowledged that he executed the same in the capacity therein stated and for the purposes therein contained.

In witness whereof, I have hereunto set my hand and official seal.

Rosamond A. Tefft
Town Clerk
Title

Rosamond A. Tefft
Notary Public

QUITCLAIM DEED

The UNITED STATES OF AMERICA, hereinafter referred to as Grantor, acting by and through ACTING the Regional Director, Northeast Region, Heritage Conservation and Recreation Service, with offices at the Federal Building, Room 9310, 600 Arch Street, Philadelphia, Pennsylvania, pursuant to authority delegated by the Secretary of the Interior, and as authorized by the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), as amended, and particularly as amended by Public Law 91-485 (84 Stat. 1084), and regulations and orders promulgated thereunder, for and in consideration of the use and maintenance of the property herein conveyed exclusively for public park or public recreation purposes in perpetuity by the State of Rhode Island, hereinafter referred to as Grantee, does hereby remise, release and quitclaim to Grantee, its successors and assigns, subject to the reservations, exceptions, restrictions, conditions and covenants hereinafter set forth, all right, title and interest of the Grantor in and to the following described property situated in the Town of Jamestown, County of Newport, State of Rhode Island, and more particularly described as follows:

TRACT 1

Beginning at a Point in the Westerly Line of a State Highway Known as Beavertail Road. Said Point Being North Zero Degrees and Thirty Eight Minutes West (N-00°-38'-W) One Hundred and Seventy Two Hundredths Feet (100.72') from the Point of Intersection at Highway Engineering Station 146+14.79, of Beavertail Road

Thence North Eighty One Degrees Twenty Seven Minutes and Fifty Four Seconds West (N-81°-27'-54"-W) One Hundred Fifteen and Seventy Three Hundredths Feet (115.73') Along the Centerline of a Stone Wall to a Point bounded Northerly by land Now or Formerly of Sidney L. Wright, et ux

Thence North Sixty Seven Degrees Zero Five Minutes and Zero Seconds West (N-67°-05'-00"-W) Seven Hundred Eighty and Fifty Four Hundredths Feet (780.54') Along the Centerline of a Said Stone Wall to a Point, Bounded Northerly by land of the Said Sidney L. Wright et ux

Thence North Sixty Three Degrees Eleven Minutes and Thirty Seconds West (N-63°-11'-30"-W) Two Hundred Eighty Nine and Seventy Hundredths Feet (289.70') Along the Center Line of the Said Stone Wall to a Point in the Mean High Water Line of the West Passage of Narragansett Bay Bounded Northerly by land of the Said Sidney L. Wright et ux

Thence Southerly Two Thousand Five Hundred Feet, More or Less (2500±) in a Meandering Line in the Mean High Water Line of the Said West Passage of the Said Narragansett Bay to a Point of intersection with the Northerly borderline of the former Fort Burnside Military Reservation

Thence South Seventy Seven Degrees Forty Four Minutes East (S-77°-44'-E) One Thousand Two Hundred Seventy Four Feet, More or Less (1274±) along said Northerly borderline of the former Fort Burnside Military Reservation to the point of intersection of the Westerly Line of a State Highway Known as Beavertail Road

Thence North Twelve Degrees Sixteen Minutes East (N-12°-16'-E) Two Thousand Twenty Six Feet, More or Less (2026'±) along said Westerly sideline of said Beavertail Road to the Point of Beginning.

EXCEPTING THEREFROM a parcel being conveyed to the Newport Electric Corporation described as: commencing at a point 25 feet right of station 148 & 16.61 in the center line of Beavertail Road; thence running southerly 100 feet along the westerly highway line of Beavertail Road to a point; said point being 25 feet right of station 149 & 16.61; thence turning at 90° angle and running westerly 100 feet to a point; thence turning at an interior angle of 90° and running northerly 100 feet to a point; thence turning at an interior angle of 90° and running easterly 100 feet to the point of beginning, containing .023 of an acre of land. Parcel is shown on Plan No. P-213 dated June 5, 1978.

Containing Seventy and Sixty Eight Hundredths Acres, more or less (70.68± Ac).

TRACT 2

Beginning at a Point in the Easterly Line of Beavertail Road, Said Point Being South Seventy Seven Degrees and Forty Four Minutes East (S-77°-44'-E) Twenty Five and Zero Hundredths Feet (25.00') From the Center Line of the Said Beavertail Road at Highway Engineering Station 165+45.48

Thence South Seventy Seven Degrees Forty Four Minutes East (S-77°-44'-E) One Thousand Five Hundred and Ninety Two Feet, More or Less (1592±) to a Point in the Mean High Water Line of the East Passage Narragansett Bay, Bounded Northerly by land of Bertram Lippincott et ux

Thence Southerly Two Thousand One Hundred and Fifty Feet, More or Less (2150'±) in a Meandering Line in the Line of Mean High Water of the Said East Passage of the Said Narragansett Bay, to a Point Bounded Easterly by the Said Narragansett Bay

Thence North Forty Nine Degrees Fourteen Minutes and Forty Five Seconds West (N-49°-14'-45"-W) Six Hundred and Twenty Feet More or Less (620±) To a Point Bounded Southerly by land of the Town of Jamestown

Thence North Thirty Three Degrees Fifty Nine Minutes and Thirty Seconds West (N-33°-59'-30"-W) Three Hundred Eighty Three and Thirty Nine Hundredths Feet (383.39') to a Point in the Easterly Line of the Said Beavertail Road, Bounded Southerly by Land of the Said Town of Jamestown

Thence North Twelve Degrees and Sixteen Minutes East (N-12°-16'-E) Seven Hundred Forty Six and Forty Nine Hundredths Feet (746.49') in the Easterly Line of the Said Beavertail Road to the Point of Beginning, Bounded Westerly by the Said Beavertail Road.

Containing Forty Two Acres, More or Less (42± Ac)

Excepting therefrom a portion of Ocean Avenue and all of Sheldon Avenue as shown on a map entitled Harbor Defenses of Narragansett Bay, Lands to be Acquired by the United States Government, Beavertail, Rhode Island, United States Engineer Office, Providence, Rhode Island, March 1942.

TRACT 3

Beginning at a Point in the Westerly Line of Beavertail Road, Said Point being North Seventy Seven Degrees and Forty Four Minutes West (N-77°-44'-W) Twenty Five and Zero Hundredths Feet (25.00') From the Center Line of the Said Beavertail Point at Highway Engineering Station 165+45.48

Thence North Seventy Seven Degrees Forty Four Minutes West (N-77°-44'-W) One Thousand Two Hundred Seventy Four Feet, More or Less (1274'±) to a Point in the Mean High Water Line of the West Passage of Narragansett Bay

Thence Southerly Three Thousand Seven Hundred Feet, More or Less (3700'±) in a Meandering Line in the Mean High Water Line of the Said West Passage of the Said Narragansett Bay to a Point Bounded Westerly by the Said West Passage of the Said Narragansett Bay

Thence South Seventy One Degrees Forty Minutes and Fifty Seconds East (S-71°-40'-50"-E) Three Hundred and Eighteen Feet, More or Less (318'±) in the Northerly Line of a State Highway called Beavertail Road, to a Point, Bounded Southerly by the Said Beavertail Road

Thence in an Arc Curving to the Left Ninety and Ninety Seven Hundredths Feet (90.97') the Chord Being North Fifty Four Degrees Fourteen Minutes and Fifteen Seconds East (N-54°-14'-15"-E) Seventy Eight and Zero Five Feet (78.05') in the Northwesterly Line of the Said Beavertail Road, Bounded Southeasterly by the Said Beavertail Road

Thence North Zero Degrees Zero Nine Minutes and Twenty Seconds East (N-00°-09'-20"-E) Two Hundred Forty Eight and Eighty Six Hundredths Feet (248.86') in the Westerly Line of the Said Beavertail Road to a Point Bounded Easterly by the Said Beavertail Road

Thence in an Arc Curving to the Right Two Hundred Eight and Fifty Hundredths Feet (208.50') the Chord Being North Twenty Three Degrees Fifty Eight Minutes and Fifteen Seconds East (N-23°-58'-15"-E) Two Hundred Zero Two and Fifty Five Hundredths Feet (202.55') in the Westerly line of the Said Beavertail Road, to a Point Bounded Easterly by the Said Beavertail Road

Thence North Forty Seven Degrees Forty Seven Minutes and Ten Seconds East (N-47°-47'-10"-E) Three Hundred Thirty Seven and Eleven Hundredths Feet (337.11') in the Northwesterly Line of the Said Beavertail Road to a Point, Bounded Southeasterly by the Said Beavertail Road

Thence in an Arc Curving to the Left One Hundred Seventy Eight and Fifty Hundredths Feet (178.50') the Chord Being North Thirty Degrees Zero One Minute and Thirty Five Seconds East (N-30°-01'-35"-E) One Hundred and Seventy Five and Sixty Six Hundredths Feet (175.66') in the Westerly Line of the Said Beavertail Road to a Point, Bounded Easterly by the Said Beavertail Road

Thence North Twelve Degrees Sixteen Minutes East (N-12°-16'-E) Two Hundred Thirty Five and Eighty Five Hundredths Feet (235.85') in the Westerly Line of the Said Beavertail Road to a Point Bounded Easterly by the Said Beavertail Road

Thence North Seventy Seven Degrees Forty Four Minutes and Zero Seconds West (N-77°-44'-00"-W) Five Hundred Thirty and Zero Hundredths Feet (530.00') to a Point, Bounded Northerly by Land to be Retained by The United States of America Shown on the Said Plat as Parcel C

Thence North Twelve Degrees Sixteen Minutes and Zero Seconds East (N-12°-16'-00"-E) Five Hundred Sixty and Zero Hundredths Feet (560') to a Point, Bounded Easterly by the Said Parcel C

Thence South Seventy Seven Degrees Forty Four Minutes and Zero Seconds East (S-77°-44'-00"-E) Five Hundred Thirty and Zero Hundredths Feet (530.00') to a Point in the Westerly Line of the Said Beavertail Road, Bounded Southerly by the Said Parcel C

Thence North Twelve Degrees Sixteen Minutes East (N-12°-16'-E) Seven Hundred Fifty Three Feet, More or Less (753'±) in the Westerly Line of the Said Beavertail Road to the Point of Beginning, Bounded Easterly by the Said Beavertail Road

Containing Forty Five and Five Tenths Acres, More or Less (45.5± Ac)

Excepting therefrom Cliff Avenue, shown shaded in blue on the aforementioned Harbor Defenses of Narragansett Bay Map.

The property herein conveyed contains 158.2 acres of land more or less and was formerly known as the NAVCOM Transmitter Station, Beavertail Point, Jamestown, Rhode Island, under the administrative jurisdiction of the United States Navy, an agency of the United States Government.

TOGETHER WITH the appurtenances and improvements thereon, and all the estate and rights of the Grantor in and to said premises.

SUBJECT TO any and all outstanding reservations, easements and rights-of-way, recorded and unrecorded, for public roads, railroads, pipelines, drainage ditches, sewer mains and lines, and public utilities affecting the property herein conveyed.

SUBJECT TO a cooperative Plan for the Conservation and Development of Fish and Wildlife on the U.S. Naval Base, Newport, Rhode Island executed April 1964 between the Navy, Department of the Interior, Fish and Wildlife Service and the Rhode Island Department of Natural Resources.

TO HAVE AND TO HOLD the above premises, subject to the easements, reservations, exceptions, restrictions, conditions, and covenants herein enumerated and set forth, unto the Grantee, its successors and assigns, forever.

There are excepted from this conveyance and reserved to the Grantor all oil, gas, and other minerals in, under, and upon the lands herein conveyed, together with the right to enter upon the land for the purpose of mining and removing the same.

There is further excepted from this conveyance and reserved to Grantor an easement, 20 feet in width, for a buried power cable serving Brenton Reef Light, which easement crosses Government-owned land identified as Navy Tract No. 3 and shown on a plan entitled "U.S. Naval Base, Newport, Rhode Island, Fort Burnside, Jamestown, Rhode Island, U.S. Coast Guard Sketch No. C-34-61, dated August 17, 1961"; centerline of said easement is described as follows:

> Beginning at a point in the southerly line of Tract No. 3, said point being N3°03' 35" W, 92 feet from Point A, as shown on the above referenced plan, thence N3°03'35"W, 514 feet to a point, thence N2°47'25"W, 443.5 feet to a point, thence N79°58'35"W, 183.4 feet to a point, thence S74°13'25" W, 130 feet to mean high water of Narragansett Bay.

Together with such access rights as are necessary for the location, operation, maintenance, repair and replacement of said line.

Pursuant to authority contained in the Federal Property and Administrative Services Act of 1949, as amended, and applicable rules, regulations and orders promulgated thereunder, the General Services Administration determined the property to be surplus to the needs of the United States of America and assigned the property to the Department of the Interior for conveyance to Grantee.

It is understood and agreed by and between the Grantor and Grantee, and Grantee by acceptance of this deed does acknowledge that it fully understands the terms and conditions set forth herein and does further covenant and agree for itself, and its successors and assigns, forever, as follows:

1. The property shall be used and maintained exclusively for the public purposes for which it was conveyed in perpetuity as set forth in the program of utilization and plan contained in Grantee's application submitted by Grantee on November 24, 1978 as amended by letter dated April 23, 1979, which program and plan may be further amended from time to time at the request of either the Grantor or Grantee, with the written concurrence of the other party, and such amendments shall be added to and become a part of the original application.

2. The Grantee shall, within six months of the date of this deed, erect and maintain a permanent sign or marker near the point of principal access to the conveyed area indicating that the property is a park or recreational area and has been acquired from the Federal Government for use by the general public.

3. The property shall not be sold, leased, assigned, or otherwise disposed of except to another eligible governmental agency that the Secretary of the Interior agrees in writing can assure the continued use and maintenance of the property for public park or public recreational purposes subject to the same terms and conditions in the original instrument of conveyance. However, nothing in this provision shall preclude the Grantee from providing related recreational facilities and services compatible with the approved application, through concession agreements entered into with third parties, provided prior

concurrence to such agreements is obtained in writing from the Secretary of the Interior.

4. From the date of this conveyance, the Grantee, its successors and assigns, shall submit biennial reports to the Secretary of the Interior setting forth the use made of the property during the preceding two-year period, and other pertinent data establishing its continuous use for the purposes set forth above, for ten consecutive reports and as further determined by the Secretary of the Interior.

5. If, at any time, the United States of America shall determine that the premises herein conveyed, or any part thereof, are needed for the national defense, all right, title and interest in and to said premises or part thereof determined to be necessary to such national defense, shall revert to and become the property of the United States of America.

6. The Grantee further covenants and agrees for itself, its successors and assigns, to comply with the requirements of Public Law 90-480 (82 Stat. 718), the Architectural Barriers Act of 1968, as amended by Public Law 91-205 of 1970 (84 Stat. 49) and regulations and orders promulgated thereunder, to assure that development of facilities on the property makes such facilities accessible to the physically handicapped; and, further assure in accordance with Public Law 93-112, the Rehabilitation Act of 1973 (87 Stat. 394) that no otherwise qualified handicapped individual shall, solely by reason of his or her handicap, be excluded from the participation, be denied benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance.

7. As part of the consideration for this deed, the Grantee covenants and agrees for itself, its successors and assigns, that: (1) the program for or in connection with which this deed is made will be conducted in compliance with, and the Grantee, its successors and assigns, will comply with all requirements imposed by or pursuant to the regulations of the Department of the Interior as in effect on the date of this deed (43 C.F.R. Part 17) issued under the provisions of Title VI of the Civil Rights Act of 1964; (2) this cove-

nant shall be subject in all respects to the provisions of said regulations; (3) the Grantee, its successors and assigns, will promptly take and continue to take such action as may be necessary to effectuate this covenant; (4) the United States shall have the right to seek judicial enforcement of this covenant; and (5) the Grantee, its successors and assigns, will: (a) obtain from each other person (any legal entity) who, through contractual or other arrangements with the Grantee, its successors or assigns, is authorized to provide services or benefits under said program, a written agreement pursuant to which such other persons shall, with respect to the services or benefits which he is authorized to provide, undertake for himself the same obligations as those imposed upon the Grantee, its successors and assigns, by this covenant, and (b) furnish a copy of such agreement to the Secretary of the Interior or his successor; and that this covenant shall run with the land hereby conveyed, and shall, in any event, without regard to technical classification or designation, legal or otherwise, be binding to the fullest extent permitted by law and equity for the benefit of and in favor of the Grantor and enforceable by the Grantor against the Grantee, its successors and assigns.

8. In the event there is a breach of any of the conditions and covenants herein contained by the Grantee, its successors and assigns, whether caused by the legal or other inability of the Grantee, its successors and assigns, to perform said conditions and covenants, or otherwise, all right, title and interest in and to the said premises shall revert to and become the property of the Grantor at its option which, in addition to all other remedies for such breach, shall have the right of entry upon said premises, and the Grantee, its successors and assigns, shall forfeit all right, title and interest in said premises and in any and all of the tenements, hereditaments and appurtenances thereunto belonging; provided, however, that the failure of the Secretary of the Interior to require in any one or more instances complete performance of any of the conditions or covenants shall not be construed as a waiver or relinquishment of such future performance, but the obligation of the Grantee, its successors and assigns, with

respect to such future performance shall continue in full force and effect:

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed in its name and on its behalf this 16th day of April, 1980.

UNITED STATES OF AMERICA

By _____
ACTING Regional Director
Northeast Region
Heritage Conservation and Recreation Service
Room 9310, Federal Building
600 Arch Street
Philadelphia, Pennsylvania 19106

State of Pennsylvania)
) ss
County of Philadelphia)

On this 16th day of April, 1980, before me, the subscriber, personally appeared Michael H. Gordon, ACTING to me known and known to me to be the Regional Director, Northeast Region, Heritage Conservation and Recreation Service, of the United States Department of the Interior, a governmental agency of the United States of America, with offices at the Federal Building, Room 9310, 600 Arch Street, Philadelphia, Pennsylvania, and known to me to be the same person described in and who executed the foregoing instrument as ACTING such Regional Director aforesaid, as the act and deed of the United States of America, for and on behalf of the Secretary of the Interior, duly designated, empowered and authorized so to do by said Secretary, and he acknowledged that he executed the foregoing instrument for and on behalf of the United States of America, for the purposes and uses therein described.

Carol Ann Kropp
NOTARY PUBLIC

CAROL ANN KROPP NOTARY PUBLIC PHILADELPHIA PENNSYLVANIA

My Commission expires:
CAROL ANN KROPP
Notary Public, Phila., Phila. Co.
My Commission Expires Oct. 13, 1983

The foregoing conveyance is hereby accepted and the undersigned agrees, by this acceptance, to assume and be bound by all the obligations, conditions, covenants and agreements therein contained.

STATE OF RHODE ISLAND

By _____
Title GOVERNOR

STATE OF Rhode Island)
) ss
COUNTY OF Providence)

On this 25th day of January, 1980, before me Sean O. Coffey, the undersigned officer, personally appeared J. Joseph Garrahy, of Narragansett, Rhode Island, known to me to be the person described in the foregoing instrument, and acknowledged that he executed the same in the capacity therein stated and for the purposes therein contained.

In witness whereof I hereunto set my hand and official seal.

Sean O. Coffey
Notary Public
Title
My commission expires
June 30, 1981

Received for record in Jamestown, R.I.
April 21, 1980 at 4:00 P.M.

Lucy C. Jenkins
Town Clerk

QUITCLAIM DEED

The UNITED STATES OF AMERICA, hereinafter referred to as Grantor, acting by and through ACTING the Regional Director, National Park Service, Mid-Atlantic Region with offices at 143 Third Street, Philadelphia, Pennsylvania, pursuant to authority delegated by the Secretary of the Interior, and as authorized by the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), as amended, and particularly as amended by Public Law 91-485 (84 Stat. 1084), and regulations and orders promulgated thereunder, for and in consideration of the use and maintenance of the property herein conveyed exclusively for public park or public recreation purposes in perpetuity by the State of Rhode Island, hereinafter referred to as Grantee, does hereby remise, release and quitclaim to Grantee, its successors and assigns, subject to the reservations, exceptions, restrictions, conditions and covenants hereinafter set forth, all right, title and interest of the Grantor in and to the following described property situated in the Town of Jamestown, County of Newport, State of Rhode Island, and more particularly described as follows:

All that tract of land, together with the buildings and improvements thereon, situated in the Town of Jamestown, County of Newport, State of Rhode Island, being more particularly bounded and described as follows:

Beginning at a point in the westerly line of Beavertail Road said point being N 77 degress 44' 0" W, 25.00 feet from the center line of the said Beavertail Road at Highway Engineering Station 172 + 95.48; thence south 12 degrees 16' W, 560.00' in the westerly line of the said Beavertail Road to a point bounded easterly by the said Beavertail Road; thence N 77 degrees 44' 00" W, 530.00' to a point bounded southerly by Parcel A as shown on the said plat; thence N 12 degrees 16' 0" E, 560.00' to a point bounded westerly by the said Parcel A as shown on the said plat; thence S 77 degrees 44' 00" E, 530.00' to the point of beginning. Bounded northerly by the said Parcel A as shown on the said plat.

The above-described parcel of land is shown on a Metes & Bounds Excess Real Estate Map bearing NETC Dwg. No. 20869-215.

The property herein conveyed contains 6.81 acres of land, more or less, and was formerly under the administrative jurisdiction of the United States Naval Facilities Engineering Command, an agency of the United States Government.

THIS CONVEYANCE IS MADE TOGETHER WITH the appurtenances and improvements thereon, and all the estate and rights of the Grantor in and to said premises, but

OMS 4110

SUBJECT TO any and all outstanding reservations, easements and rights-of-way, recorded and unrecorded, for public roads, railroads, pipelines, drainage ditches, sewer mains and lines, and public utilities affecting the property herein conveyed.

AND SUBJECT TO the following specified easements reserved in and to the United States of America.

The Grantor reserves a perpetual and assignable easement for the United States of America (Government), and its authorized representatives, for the exclusive use and operation of an area of land consisting of approximately 40,000 square feet of land, more or less, together with the improvements situate thereon, bounded and described as follows for so long as the Government continues to use the area for Government purposes.

RESERVED EASEMENT FOR RAYDIST BASE STATION, BEAVERTAIL POINT, JAMESTOWN, RHODE ISLAND.

A certain parcel situated in the Town of Jamestown, County of Newport, State of Rhode Island bounded and described as follows:

> Beginning at a point in the westerly line of Beavertail Road, said point being N 77° 44' W, 25.00 feet and S 12° 16' W, 560.00 feet from the center line of said Beavertail Road at Highway Engineering Station 172 + 95.48;
> thence N 77° 44' W, 200.00 feet;
> thence N 12° 16' E, 200.00 feet;
> thence S 77° 44' E, 200.00 feet to the westerly line of Beavertail Road;
> thence S 12° 16' W, along said line of Beavertail Road a distance of 200.00 feet to the point of beginning.
> Containing 40,000 square feet.

The above described parcel is outlined in green on a plat entitled "Metes & Bounds, Excess Real Estate, Jamestown, Rhode Island" bearing NETC Drawing Number 20869-215 and prepared 22 June 1977.

The Government and its authorized representative shall have the right during the existence of this easement to make alterations or erect structures in or upon the aforedescribed easement area, which alterations or structures so placed in, upon, or attached to the said premises shall be and remain the property of the Government or its authorized representative, and may be removed or otherwise disposed of by the Government or its authorized representatives.

Upon termination of this easement, the Government or its authorized representative shall have the right to remove all improvements installed or constructed on the premises or abandon such improvements in place with no further cost or expense to the Government.

The Government and its authorized representatives shall have the rights of ingress and egress to and from the aforedescribed 40,000 square feet parcel through the existing roadway on the land being excessed which roadway shall be maintained by the Grantee (State of Rhode Island).

The Government reserves easements for all utility distribution lines and systems located on excess land so as to assure continuing and uninterrupted supply of utility service to the above-described 40,000 square feet parcel.

The Government hereby retains the right to be apprised of, have access to, review and approve specifications, plans and drawings for construction of facilities, improvements or other structures proposed to be accomplished upon the excess land, which review and approval shall not unreasonably be withheld, so as to insure that the recipient's use of the excess area does not interfere with the Government's operations on the aforedescribed 40,000 square feet parcel.

AND SUBJECT FURTHER to the following-described covenant and restriction.

The structure will be maintained so as to preserve the qualities which qualify it for the National Register of Historic Places.

To accomplish this goal, all plans for the maintenance, restoration, alteration or demolition of the existing structure, and all plans for new construction, must be reviewed by the State Historic Preservation Officer, to determine whether the proposed action will adversely affect the historic qualities of the site, and to devise means of lessening or eliminating such adverse effects when they occur.

Prior to undertaking any construction activities within the area to be transferred, the Department of Environmental Management also agrees to conduct a reconnaissance archeological survey to determine the presence and disposition of archeological resources within the areas to be disturbed, and to devise a program to eliminate or minimize the impact of construction upon such resources should they be found. All workscopes for survey and mitigation activities , and all reports produced as a result of such activities shall be reviewed and approved by the Rhode Island State Historic Preservation Officer.

Survey and mitigation activities undertaken in compliance with this condition shall be conducted in accordance with the standards published in 36 CFR Part 66; Recovery of Scientific, Prehistoric, Historic and Archeological Data; Methods, Standards, and Reporting Requirements.

The above restrictions shall be binding on the parties hereto, their heirs, successors, and assigns in perpetuity; however, the Rhode Island State Historic Preservation Officer may, for good cause, modify or cancel any or all of the foregoing restrictions upon written application of the grantee, his heirs or assigns.

TO HAVE AND TO HOLD the above premises, subject to the easements, reservations, exceptions, restrictions, conditions, and covenants herein enumerated and set forth, unto the Grantee, its successors and assigns, forever.

There are excepted from this conveyance and reserved to the Grantor all oil, gas, and other minerals in, under, and upon the lands herein conveyed, together with the right to enter upon the land for the purpose of mining and removing the same.

Pursuant to authority contained in the Federal Property and Administrative Services Act of 1949, as amended, and applicable rules regulations and orders promulgated thereunder, the General Services Administration determined the property to be surplus to the needs of the United States of America and assigned the property to the Department of the Interior for conveyance to

Grantee. It is understood and agreed by and between the Grantor and Grantee, and Grantee by acceptance of this deed does acknowledge that it fully understands the terms and conditions set forth herein and does further covenant and agree for itself, and its successors and assigns, forever, as follows:

1. The property shall be used and maintained exclusively for the public purposes for which it was conveyed in perpetuity as set forth in the program of utilization and plan contained in Grantee's application submitted by Grantee on July 26, 1983, which program and plan may be amended from time to time at the request of either the Grantor or Grantee, with the written concurrence of the other party, and such amendments shall be added to and become a part of the original application.

2. The Grantee shall, within six months of the date of this deed, erect and maintain a permanent sign or marker near the point of principal access to the conveyed area indicating that the property is a park or recreational area and has been acquired from the Federal Government for use by the general public.

3. The property shall not be sold, leased, assigned, or otherwise disposed of except to another eligible governmental agency that the Secretary of the Interior agrees in writing can assure the continued use and maintenance of the property for public park or public recreational purposes subject to the same terms and conditions in the original instrument of conveyance. However, nothing in this provision shall preclude the Grantee from providing related recreational facilities and services compatible with the approved application, through concession agreements entered into with third parties, provided prior concurrence to such agreements is obtained in writing from the Secretary of the Interior.

4. From the date of this conveyance, the Grantee, its successors and assigns, shall submit biennial reports to the Secretary of the Interior setting forth the use made of the property during the preceding two-year period, and other

pertinent data establishing its continuous use for the purposes set forth above, for ten consecutive reports and as further determined by the Secretary of the Interior.

5. If, at any time, the United States of America shall determine that the premises herein conveyed, or any part thereof, are needed for the national defense, all right, title and interest in and to said premises or part thereof determined to be necessary to such national defense, shall revert to and become the property of the United States of America.

6. The Grantee further covenants and agrees for itself, its successors and assigns, to comply with the requirements of Public Law 90-480 (82 Stat. 718), the Architectural Barriers Act of 1968, as amended by Public Law 91-205 of 1970 (84 Stat. 49) and regulations and orders promulgated thereunder, to assure that development of facilities on the property makes such facilities accessible to the physically handicapped; and further assure in accordance with Public Law 93-112, the Rehabilitation Act of 1973 (87 Stat. 394) that no otherwise qualified handicapped individual shall, solely by reason of his or her handicap, be excluded from the participation in, be denied benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance.

7. As part of the consideration for this deed, the Grantee covenants and agrees for itself, its successors and assigns, that: (1) the program for or in connection with which this deed is made will be conducted in compliance with, and the Grantee, its successors and assigns, will comply with all requirements imposed by or pursuant to the regulations of the Department of the Interior as in effect on the date of this deed (43 C.F.R. part 17) issued under the provisions of Title VI of the Civil Rights Act of 1964; (2) this covenant shall be subject in all respects to the provisions of said regulations; (3) the Grantee, its successors and assigns, will promptly take and continue to take such action as may be necessary to effectuate this covenant; (4) the United States shall have the right to seek judicial enforcement of this covenant; and (5) the Grantee its successors

and assigns, will: (a) obtain from each other person (any legal entity) who, through contractual or other arrangements with the Grantee, its successors or assigns is authorized to provide services or benefits under said program, a written agreement pursuant to which such other persons shall, with respect to the services or benefits which he is authorized to provide, undertake for himself the same obligations as those imposed upon the Grantee, its successors and assigns, by this covenant, and (b) furnish a copy of such agreement to the Secretary of the Interior or his successors; and that this covenant shall run with the land hereby conveyed, and shall, in any event, without regard to technical classification or designation, legal or otherwise, be binding to the fullest extent permitted by law and equity for the benefit of and in favor of the Grantor and enforceable by the Grantor against the Grantee, its successors and assigns.

8. In the event there is a breach of any of the conditions and covenants herein contained by the Grantee, its successors and assigns, whether caused by the legal or other inability of the Grantee, its successors and assigns, to perform said conditions and covenants, or otherwise, all right, title and interest in and to the said premises shall revert to and become the property of the Grantor at its option which, in addition to all other remedies for such breach, shall have the right of entry upon said premises, and the Grantee, its successors and assigns, shall forfeit all right, title and interest in said premises and in any and all of the tenements, hereditaments and appurtenances thereunto belonging; provided, however, that the failure of the Secretary of the Interior to require in any one or more instances complete performance of any of the conditions or covenants shall not be construed as a waiver or relinquishment of such future performance, but the obligation of the Grantee, its successors and assigns, with respect to such future performance shall continue in full force and effect:

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed in its name and on its behalf this 7TH day of JUNE, 1984.

UNITED STATES OF AMERICA

By _____
ACTING Regional Director
National Park Service
Mid-Atlantic Region
143 Third Street
Philadelphia, Pennsylvania

State of PENNSYLVANIA)
)ss
County of PHILADELPHIA)

On this 7TH day of JUNE, 1984, before me, the subscriber, personally appeared DON H. CASTLEBERRY, to me known and known to me to be the ACTING Regional Director, National Park Service, Mid-Atlantic Region, of the United States Department of the Interior, a governmental agency of the United States of America, with offices at 143 Third Street, Philadelphia, Pennsylvania, and known to me to be the same person described in and who executed the foregoing instrument as such Regional Director aforesaid, as the act and deed of the United States of America, for and on behalf of the Secretary of the Interior, duly designated, empowered and authorized so to do by said Secretary, and he acknowledged that he executed the foregoing instrument for and on behalf of the United States of America, for the purposes and uses therein described.

THOMAS F. DUDA
Notary Public, Phila., Phila. Co.
My Commission Expires June 26, 1986

NOTARY PUBLIC

My Commission expires:

THOMAS F. DUDA
Notary Public, Phila., Phila. Co.
My Commission Expires June 26, 1986

The foregoing conveyance is hereby accepted and the undersigned agrees, by this acceptance, to assume and be bound by all the obligations, conditions, covenants and agreements therein contained.

STATE OF RHODE ISLAND

By [signature]

Title Director
DEM

State of RHODE ISLAND)

County of Providence)ss

On this the 27th day of June in the year 1984, before me, personally came Robert L. Bendick to me known, and known to me to be the individual described in and who executed the foregoing instrument, and he thereupon acknowledged to me that he executed the same.

[signature]

Chief Legal Counsel
Title

My Commission Expires

6/30/86

Approved as to Form:

Asst. Attorney General

Approved:

Governor, State of Rhode Island
and Providence Plantations

Approved as to Substance:

Director of Administration

Approved:

Director, Department of
Environmental Management

Approved:

Chairman
State Properties Committee

RECEIVED FOR RECORD IN JAMESTOWN, R.I.
July 2, 1984 at 3:19 P.M.
Lois E. Coons, TOWN CLERK

LEASE EXTENSION

THIS LEASE EXTENSION entered into this 26 day of November, 2019, by and between the TOWN OF JAMESTOWN, RHODE ISLAND, acting by and through its Town Council, hereinafter being referred to as the "LESSOR", and the STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, acting by and through the Director of the Department of Environmental Management, hereinafter being referred to as the "LESSEE".

WHEREAS, LESSOR and LESSEE have entered into an Indenture of Lease, as amended, for certain parcels of land and other appurtenances located at Beavertail State Park, in the Town of Jamestown, Rhode Island, dated January 14, 1980, said lease hereinafter being referred to as the "Lease;" and

WHEREAS, the Lease includes a provision that provides the LESSEE with the exclusive option of renewing such lease for an additional forty (40) year term; and,

WHEREAS, LESSOR and LESSEE are desirous of continuing with the terms and conditions of said Lease, primarily to develop Beavertail State Park as a single State park with uniform management, development, restoration and preservation policies to be administered and maintained by the LESSEE;

NOW THEREFORE, in consideration of the Premises and for other good and valuable consideration, receipt of which is hereby acknowledged, LESSOR and LESSEE hereby agree to extend the term of the Lease for an additional forty (40) years from January 14, 2020 through January 13, 2060.

All other terms and conditions of the existing Lease shall remain in full and effect.

IN WITNESS WHEREOF, THE TOWN OF JAMESTOWN has caused these presents to be executed in its name and behalf by its Town Council, hereunto duly authorized; and, THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS has caused these presents to be executed in its name and behalf by Janet Coit, the Director of the Department of Environmental Management, hereunto duly authorized, each party signing counterparts the day and year first written above.

EXECUTED IN THE PRESENCE OF:

LESSOR:

TOWN OF JAMESTOWN

By its Town Council:

Michael G. White, President
(Duly Authorized)

LESSEE:

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
By:

Janet Coit, Director
Department of Environmental Management

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
COUNTY OFNEWPORT

In the Town of Jamestown in said County and State, on the 6 day of November, 2019, personally appeared before me Michael G. White, President of the Town Council of the TOWN OF JAMESTOWN, to me known and known by me to be the party executing the foregoing instrument for and on behalf of TOWN OF JAMESTOWN, (as LESSEE), and he acknowledged said instrument by him executed to be his free act and deed, his free act and deed in said capacity, and the free act and deed of TOWN OF JAMETOWN.

Erin Liese
Notary Public
My Commission expires: 7-1-2020

ERIN LIESE NOTARY PUBLIC STATE OF RHODE ISLAND

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
COUNTY OF PROVIDENCE

In Providence in said County and State, on the 14th day of November, 2019, personally appeared before me Janet L. Coit, the Director of the STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, to me known and known by me to be the party executing the foregoing instrument for and on behalf of the STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (as LESSOR), and she acknowledged said instrument by her executed to be her free act and deed, her free act and deed in said capacity, and the free act and deed of the STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.

Suzanne Amerault
Notary Public
My Commission expires: 1/30/23

SUZANNE AMERAULT NOTARY PUBLIC MY COMMISSION EXPIRES 01-30-2023 STATE OF RHODE ISLAND

Approved this 26th day of November, 2019 by the State Properties Committee:

APPROVED AS TO TERMS AND CONDITIONS:

Chairman, State Properties Committee

APPROVED AS TO SUBSTANCE:

Director of Administration

APPROVED AS TO FORM:

Attorney General

APPROVED:

Public Member, State Properties Committee

Public Member, State Properties Committee

THIS LEASE, made this 14 day of JANUARY, A.D. 1980.

WITNESSETH

WHEREAS, THE TOWN OF JAMESTOWN, RHODE ISLAND (hereinafter referred to as the "Town") is the owner in fee of a certain parcel of real property located on Conanicut Island on the peninsula commonly known as Beavertail; and

WHEREAS, the Town leases from the United States a parcel of real property, with attached buildings and fixtures, on Beavertail Peninsula, Conanicut Island; and

WHEREAS, the STATE OF RHODE ISLAND (hereinafter sometimes referred to as the "State") is the owner in fee of a certain portion of the Beavertail peninsula on Conanicut Island which is not owned or leased by the Town, or retained by the United States; and

WHEREAS, the parcel of land owned by the Town is more particularly described in Exhibit A attached hereto and made a part hereof and shall be referred to hereinafter as Parcel "A"; and

WHEREAS, the parcel of land leased by the Town from the United States is described more particularly on Exhibit B attached hereto and made a part hereof and shall be referred to hereinafter as Parcel "B"; and

WHEREAS, the parcel of land on Beavertail Peninsula owned by the State is more particularly described on Exhibit C attached hereto and made a part hereof and shall be referred to hereinafter as Parcel "C"; and

WHEREAS, the Town and the State recognize that the Beavertail Peninsula on Conanicut Island is a unique natural resource of the State of Rhode Island which because of its ecological fragility and sensitivity to human influence must be carefully preserved and guardedly developed; and

WHEREAS, it is the intention of the Town and the State that the Beavertail peninsula be developed into a State park in such a way as to allow the people of the state to observe and enjoy its natural features, and at the same time give permanent protection to those features by forever restricting development to the minimum amount necessary to allow access to such a park by the public in such numbers as reasonably can be supported by the park's land and natural features; and

WHEREAS, the Town and the State recognize and agree that their mutual interests in preservation of Beavertail and provisions of access to Beavertail by the public in numbers limited to what the land and natural features can reasonably support and absorb can only be accomplished if Beavertail is developed into a park in strict conformance with the Development Plan and Rules, and Beavertail Descriptive Plan, which Plan and Rules, and Descriptive Plan, are attached hereto as Exhibit D and Exhibit E, respectively, and incorporated herein by reference; and

WHEREAS, it is the intention of the Town and the State that Beavertail be developed as a single State park, with uniform management, development, restoration and preservation policies to be administered by the State; and

WHEREAS, it is the intention of the Town and the State that the State shall manage the Beavertail State Park (hereinafter sometimes referred to as "park") in consultation with an Advisory committee whose members shall be selected in the manner hereinafter provided for; and

WHEREAS, the Town agrees that it will provide routine maintenance and clean up services for the Beavertail State Park, subject to the supervision and ultimate control and responsibility of the State Department of Environmental Management (hereinafter referred to as "DEM");

NOW THEREFORE, the State, for and in consideration of the facts above-recited and of the covenants herein contained does hereby hire and rent from the Town, and the Town does hereby demise and lease to the State, that parcel of real estate hereinabove described and referred to as Parcel "A", and does hereby demise and sublease to the State that parcel of real estate hereinabove referred to and described as Parcel "B", for such term or terms, and on such conditions, as are hereinafter delineated.

TO HAVE AND TO HOLD the herein described premises, for and during the terms as hereinafter described, upon the following covenants and conditions:

FIRST: The term of the lease for Parcel "A" shall be forty (40) years from the date of execution. The State shall have the exclusive option of renewing such lease under identical terms and conditions as are contained herein, for additional terms of forty (40) years each, provided, however, that, in order to exercise such options, the State shall have notified the Town of its intention so to exercise not later than one (1) year prior to expiration of the initial or renewal term.

The term of the lease for Parcel "B" shall be the term of the lease under which the Town leases Parcel "B" from the United States, and all renewals thereof.

SECOND: The Town covenants that, if the United States should ever be willing to sell or otherwise convey title and fee in Parcel

"B" to any other person or entity, other than the Town of Jamestown, the Town will cooperate and aid in securing the sale or other conveyance of Parcel "B" to the State. The Town further covenants that, in the event that Parcel "B" is sold or conveyed by the United States to the Town, the Town shall lease Parcel "B" to the State for the identical term or terms, and under the identical conditions and covenants, under which the Town leases Parcel "A" to the State.

THIRD: The State, during the term of the lease, shall have exclusive authority and control over Parcel "A" and Parcel "B" (hereinafter sometimes referred to collectively as the "demised premises") subject to provisions of Paragraph 11, such authority and control to be exercised for the purpose of constructing, restoring, maintaining, conducting periodic repair of, and conducting all other activities of any sort whatsoever as might be required for, a single, uniform, State Park on Beavertail Peninsula, Conanicut Island (hereinafter referred to as the "park"), such park to comprise the land areas described as Parcel "A", Parcel "B" and Parcel "C", and such other parcels of land which the State or the Town may hereafter acquire, through lease, purchase or other conveyance, and which the State determines, after consultation with the Advisory Committee hereinafter created, should be made a part of and incorporated in such park.

FOURTH: The State covenants and agrees that it will construct, manage, and maintain the park, including any additional parcels which may hereafter be acquired and added to such park, in strict conformance and consistency with the Development Plan and Rules, and Beavertail Descriptive Plan, Exhibits D and E hereto, which Plan and Rules the State, through DEM, shall adopt as Departmental rules pursuant to the Administrative Procedures Act, G.L.R.I. Ch.

42-35; as amended.

FIFTH: The State agrees that it will consult with an Advisory Committee in managing the park, and in conducting any and all restoration, construction, or demolition activities not specifically set forth in Exhibits D and E hereto. The Advisory Committee shall be constituted of five (5) members, three (3) of whom shall be chosen by the Town in whatever manner the Town shall see fit; one (1) of whom shall be appointed by DEM; and one (1) of whom shall be jointly agreed upon by the Town and DEM, and shall be an individual not a resident, permanent or seasonal, of Jamestown, knowledgeable in matters of environmental protection and preservation.

SIXTH: The State covenants that in the event that it ever imposes a user or admission fee at the park, it will establish an annual or seasonal pass for admission to and/or use of such park. In that event, the State shall pay to the Town, as its total rent obligation under this lease, the total amount of annual revenues received by the State from sale of such annual or seasonal passes to residents of the Town. For purposes of administration of this Paragraph, the State and the Town agree that the State may delegate to the Town the responsibility for issuing such annual or seasonal passes to residents of the Town, and collecting receipts therefor.

SEVENTH: The Town covenants and agrees that the State shall at all times have the right to quiet use and enjoyment of the demised premises during the term of this lease.

EIGHTH: The State shall be responsible for and shall pay all expenses for capital improvements, operation, maintenance, repairs

and all other activities associated with the operation of the park. The State shall indemnify the Town and hold the Town harmless from any and all claims, of any sort whatsoever, arising out of the construction, restoration, maintenance, repair and operation of, and any and all other activities associated with the park.

NINTH: The Town covenants and agreed that upon request by the State, and to the extent it is capable, it will provide routine maintenance services in connection with operation of the park, subject to the supervision and ultimate control of the State.

TENTH: The subleasing of Parcel "B" to the State is expressly conditioned upon the prior written approval of such sublease by the United States.

ELEVENTH: This lease is subject to the right of exclusive use for residential purposes only by the Town or the Town's designee, as the case may be, of that building and associated structures now existing and located on Parcel "B". The Town's rights under this Paragraph shall extinguish in the event that Parcel "B" is acquired by the State of Rhode Island.

IN WITNESS WHEREOF, the TOWN OF JAMESTOWN and the STATE OF RHODE ISLAND caused this Lease by those officers therein

duly authorized as of the day and year first above written.

TOWN OF JAMESTOWN

By:

Kenneth C. Abrahamson

Anthony J. Vieira

Barbara J. Conn

John F. Doyle, Jr.

Charlotte S. Richardson

STATE OF RHODE ISLAND

By_____

File Under Beavertail

AMENDMENT TO LEASE

Agreement made this 14th day of February 1983, by and between the TOWN OF JAMESTOWN, RHODE ISLAND (hereinafter "Town") and the STATE OF RHODE ISLAND (hereinafter "State"), that the lease dated January 14, 1980 between the parties hereto, may be amended as set forth below. All other provisions of the aforesaid document remain binding on the parties, and on their respective successors and assigns.

WHEREAS, that in addition to the parcels described in the aforesaid lease, the Town leases an additional parcel from the United States Government, which is that parcel of approximately 7.4 acres lying to the South of and adjacent to the other parcels described in the lease, which parcel constitutes the tip of Beavertail Penninsula on Conanicut Island, and which shall be referred to hereafter as Parcel "D".

NOW THEREFORE, the Town and the State agree that it is in their mutual interests that Parcel "D" be subject to the same terms and conditions as that appertaining to Parcel "B" under the lease, except that the Town will continue to appoint the caretaker at the Beavertail Lighthouse and that caretaker will be responsible to the Town and except that the term of the lease period applicable to Parcel "D" shall be for the same period, and subject to the same conditions, including options to renew, as those which may now, or hereafter, be embodied in any lease agreement concerning parcel "D" between the Town and the U. S. Government.

IN WITNESS WHEREOF, the Town and the State have caused this Amendment to Lease be executed by those officers of each party duly authorized as of the day and year first above written.

TOWN OF JAMESTOWN

By Anthony G. Vieira
Town Council Pres.

Robert L. Bendick, Jr.
Director
Department of Environmental Management

Consent of the State Properties Committee:

APPROVED AS TO FORM:

Ass't Attorney General

APPROVED AS TO SUBSTANCE:

Director Administration

APPROVED AS TO TERMS AND CONDITIONS:

State Purchasing Agent and
Chairman,
State Properties Committee

EXHIBIT "A"

VOL 66 PAGE 151

QUITCLAIM DEED

The UNITED STATES OF AMERICA, acting by and through the Regional Director, Northeast Region, Bureau of Outdoor Recreation, with offices at 1421 Cherry Street, Philadelphia, Pennsylvania, pursuant to authority delegated by the Secretary of the Interior, and as authorized by the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), as amended, and particularly as amended by Public Law 91-485 (84 Stat. 1084), and regulations and orders promulgated thereunder (hereinafter referred to as Grantor), for and in consideration of the use and maintenance of the property herein conveyed for public park or public recreation purposes in perpetuity by the Town of Jamestown, Rhode Island (hereinafter referred to as Grantee), does hereby remise, release, and quitclaim to Grantee, its successors and assigns, subject to the reservations, exceptions, restrictions, conditions, and covenants hereinafter set forth, all right, title, and interest of the Grantor in and to the following described property situated in the Town of Jamestown, County of Newport, State of Rhode Island, and more particularly described as follows:

Beginning at a point on a Rhode Island highway bound on the northerly side of Beavertail Point Road, said point being 182.5 feet, more or less, from the mean high water mark of Narragansett Bay and 162.54 feet from a spike set in the ledge in the said northerly side of Beavertail Point Road, both distances being measured along the said northerly side of Beavertail Point Road; Thence the following courses and distances along the easterly side of said Beavertail Point Road: (1) by the arc of a curve to the right having a radius of 112.30 feet a distance of 140.80 feet; (2) northerly, 248.86 feet; (3) by the arc of a curve to the right having a radius of 200.81 feet a distance of 267.14 feet; (4) northeasterly, 337.11 feet; (5) by the arc of a curve to the left having a radius of 337.94 feet, a distance of 209.50 feet; (6) northerly 799.36 feet; Thence southeasterly along a line which forms an interior angle of 46° 15' 30" with the last described line, a distance of 383.39 feet; Thence continuing southeasterly along a line which forms an interior angle of 195° 55' 15" with the last described line, a distance of 620 feet, more or less, to the mean high water mark of Narragansett Bay; Thence along the mean high water mark of Narragansett Bay in a general southwesterly direction to the northerly side of Beavertail Point Road; Thence northwesterly along the said northerly side of Beavertail Point Road 182.5 feet, more or less, to a Rhode Island highway bound and point of beginning.

The property herein conveyed contains 20 acres, more or less, and was formerly a portion of the Naval Communication Station, N-RI-467, under the administrative jurisdiction of the Department of the Navy, an agency of the United States Government.

EXHIBIT "B"

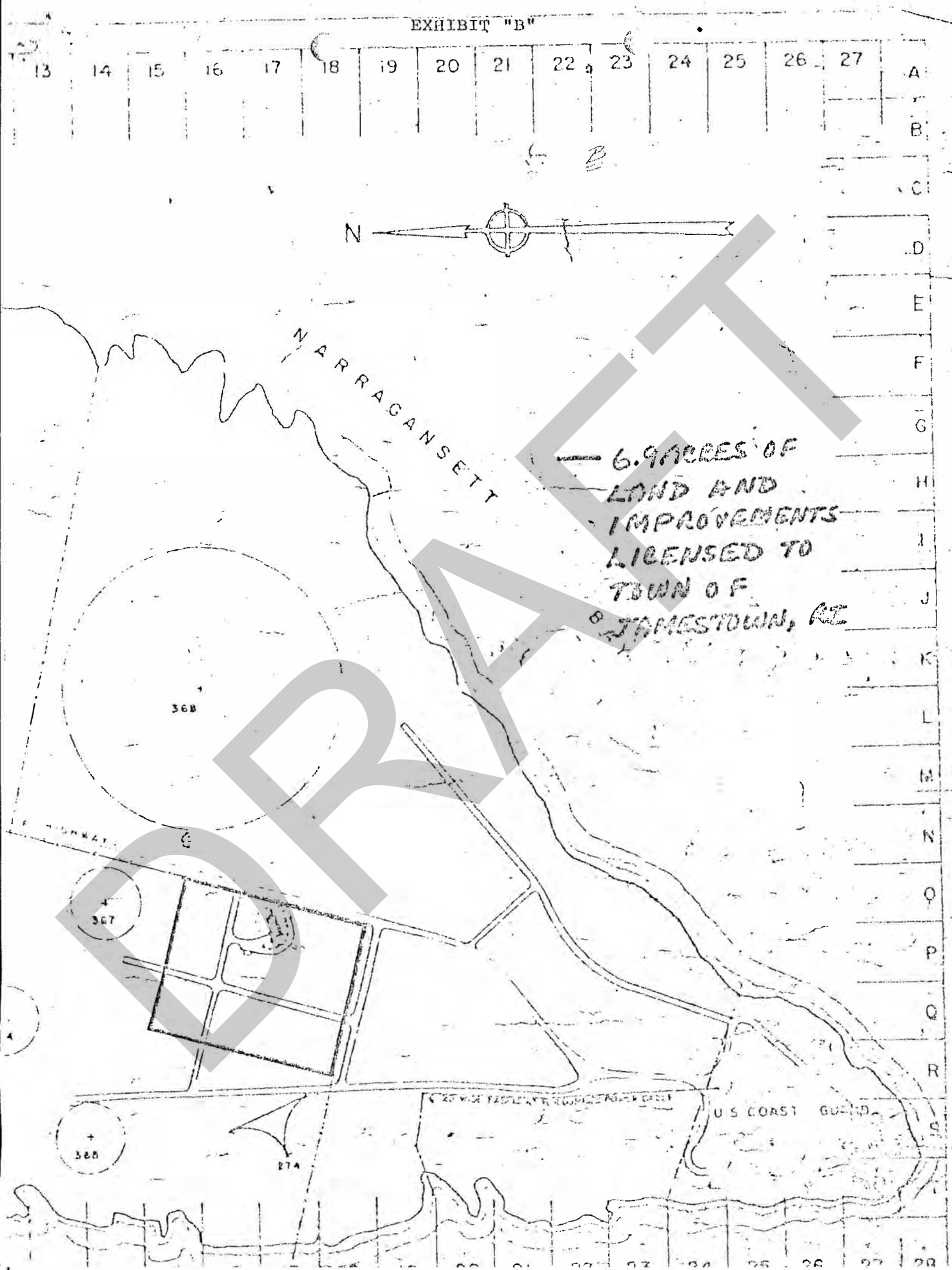

EXHIBIT "C"

Description of land to be acquired by the State of Rhode Island from the United States Government.

STATE OF RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

EXHIBIT D

BEAVERTAIL PLAN AND RULES

It is the intention of the Rhode Island Department of Environmental Management ("DEM") to obtain 170 acres of federal surplus land on the Beavertail area of Jamestown, Rhode Island. The Department has worked with the Town of Jamestown ("Town") toward creation of a Beavertail State Park which would be made up of the surplus land and 26 additional acres now owned or controlled by the Town. In moving toward creation of the park the Department and the Town have analyzed the characteristics of the land in question and have drawn plans for a park which will meet the needs of users while preserving the fragile ecological, scenic and historical characteristics of Beavertail.

This plan is explained and described in the attached documents, known as the Beavertail Descriptive Plan, which is attached hereto as Exhibit E, and incorporated herein by reference. The Beavertail Descriptive Plan portrays the site of the Park, and describes the manner in which it is to be developed. The Beavertail Descriptive Plan includes the following:

1. Maps (1-11) and narrative statements which describe the physical characteristics of the site including topography, slopes, soils, vegetation, hydrology, geology, existing roads and existing buildings.
2. A proposed development plan (Map 12) which is drawn from and supported by the findings.

Analysis of the physical and biological characteristics of the Beavertail Peninsula, as described and portrayed in Exhibit E, compels the following findings and conclusions relative to the peninsula and its development as a park:

1. Topography

The topography of Beavertail creates quite a subtle landform except for certain places along the shoreline where the land drops dramatically 20 to 30 feet to the ocean. The rest of the land gently rolls up to a slight crown 72 feet above sea level. This crown unfortunately peaks just to the west of the main road so any view of the ocean from the main road is completely cut off. Any conception of being on a peninsula with ocean on three sides is totally diminished until you reach the very tip where the topography and vegetation

finally open up to the ocean.

One solution that would allow a park visitor to know what type of landform he was approaching would be to pull the main road up and over the crown. This would enable a commanding view of the ocean as well as experiencing the landscape as it rolled down to the rocky shoreline, yet would have an acceptably small impact on existing soils and vegetation.

2. Slope

The slope is not a major development factor of Beavertail except for along the shoreline. For most of the land this slope ranges from 0-8 percent but as it was pointed out in topography, the drop to the ocean along the shoreline can range from 15 percent to well over 60 percent. The western shoreline is the one that presents the most problems. The nature of the geology (see sheet 6 geology) plus the constant battering from the wind and sea has caused this abrupt change from a gently rolling landscape to the rocky shoreline cliffs.

As spectacular as these cliffs may be, they also present some dangers to people who happen to step carelessly. To combat this, the actual shore trail must be rebuilt on only stable areas where soil and rock erosion is minimal. The trail also must be incorporated into the slope in certain places to act as retaining walls and thus reduced soil erosion.

Another precautionary measure which must be taken is to locate any activities, such as picnicking where small children may wander about, in other areas that present no hazards.

3. Soils

Within the soils found at Beavertail some have very slow permeability in the substratum. (Mapping units 29A, 29B, 48). This will create problems locating septic tank absorption fields.

Location of any sanitary facility must be within the Newport series (Mapping units 10A, 10B, 10C) and then only if the proper percolation tests show suitability.

Another factor to deal with when working with the soils is that Beavertail is covered with a very thin layer of top soil. This can be easily compacted if not property managed. Any amount of severe compaction would result in loss of plant material and eventually soil erosion. To eliminate any unnecessary soil compaction the existing roads must be utilized to the maximum extent possible

when developing the new road system.

The overall soil configuration limits high intensity public use because of restrictions on disposal of wastes and because of potential impacts of over-use on vegetation.

4. Vegetation

The vegetation, as shown on sheet 4 is broken into three distinct classes, high vegetation, low vegetation and field vegetation. Field vegetation is currently the most predominant on the proposed park site but is now undergoing a field succession process that allows the growth of the lower plants (bayberry, wild cherry and red cedar).

Since field succession is a natural process, no major steps will be taken to prevent the land from reverting back to a denser vegetation. Some measures though will be initiated to assure optical views of the ocean and any growth of higher vegetation (8 ft and above) would serve to frame these views.

Rare and endangered plant species are present on the site. Already there have been two site visits with specialists to determine the exact location of such plant material. Proposed roads and paths have been altered so as not to jeopardize their existence. All proposed improvements must be reviewed to insure that no rare plant species are adversly affected.

5. Hydrology

The hydrology of Beavertail which is illustrated on sheet 5 is relatively simple. There are two small wetlands, one of which is drained by intermittent streams. The remainder of the site drainage is unorganized and flows directly into the Bay. The site lacks significant fresh water resources; thus development is limited by water supply. The high water table in and surrounding the wetlands excludes construction or major development of those areas. The road which travels across the intermittent streams follows the paths of existing roads so that the necessary culverts must just be retained; wetlands will not be filled. Picnic and parking areas in the plan are not to be located on wet soils. Much of the site can accept on-site sewage disposal; any future rest room facilities will be located on suitable soils.

6. Geology

The geology of the site as described on sheet 6 consists of schistose conglomerate and sandstone bedrock which is overlain with 15-20 feet of glacial till which includes acres of gravel and sand. The exposed bedrock around the shoreline is steeply sloping along the west shore and slopes more

gradually on the east shore. In each case the rock ledges which have been eroded by wave action present attractive scenic views.

7. Existing Roads

An important piece of the inventory stage was the mapping of existing roads (sheet 7). This is because the park development must minimize any unnecessary removal of plant material and cause the least disturbance to the soils. The existing road beds which were mostly gravel and left behind by the Navy served to determine how a new park loop road could be incorporated to circulate people through different areas of the site. The field roads, most of them made by fishermen, have also been utilized to lay out a 2 mile bicycle route.

Policy and Regulations

Based on the foregoing, the Department of Environmental Management adopts the following regulations which shall govern the development and operation of Beavertail State Park:

1. Except as specifically provided for in the attached Beavertail Descriptive Plan, roads and bikeways at the Park shall be constructed only on roadways existing at the time of the State's aquisition of the land.

2. Vehicular traffic, including bicycles, shall be restricted to roads, bikeways, and parking lots. Parking shall only be allowed on paved or gravelled areas specifically denoted as parking areas.

3. To the maximum extent possible, pedestrian traffic will be limited to the pedestrian pathways provided for in the Plan.

4. The total parking capacity shall be limited to 150 cars, dispersed among five separated parking areas of 30 cars capacity each.

5. Vehicular traffic is to be managed in such a way as to discourage or eliminate traffic from Beavertail Point, in the vicinity of the existing light house.

6. No rest rooms shall be constructed except on soils marked as Newport Series, and only then when appropriate percolation tests show suitability of the soil for sewage disposal systems.

7. Management of the Park shall be conducted in such a manner as to encourage dispersion of visitors around the park, rather than their concentration in any particular locality.

8. No development of any sort whatsoever shall be allowed in the large open spaces provided for and depicted on Sheet No. 12 of Exhibit E. These acres shall be preserved for natural plant succession and wildlife habitat.

9. There shall be allowed at no time overnight camping within Beavertail State Park.

10. The overriding principle of the Park's development, operation, and management shall at all times be the restoration and preservation of the natural features of Beavertail Peninsula.

11. An Advisory Committee shall be constituted as follows:

The Advisory Committee shall comprise five (5) members. Three of its members shall be selected and appointed by the governing body of the Town of Jamestown, by whatever process that body sees fit. One of its members shall be chosen by the Director of the Department of Environmental Management, or its successor agency, if any. The fifth member shall be mutually chosen by the Town and DEM, shall be a citizen of Rhode Island not a resident, permanent or seasonal, of Jamestown, and shall be knowledgeable in matters of environmental protection and preservation.

12. The Director of DEM shall consult with the Advisory Committee not less frequently than twice annually regarding the operating of Beavertail State Park, and in any event shall consult with the Advisory Committee before making any policy or development decisions with respect to such Park.

13. The Director of DEM shall consult with the Advisory Committee prior to seeking to amend, through the procedures provided in the Administrative Procedures Act, R.I.G.L. Chapter 42-35, any part of these regulations.

14. The development, operation, and Management of Beavertail State Park shall at all times strictly comply with these Regulations, and Exhibit E attached hereto.

EXHIBIT "E"

For description plan reference is hereby made to that plan of land entitled "Beavertail D-E-M drawing numbers: 004147-15-011-001-1, 004147-15-011-002-1, 004147-15-011-003-1, 004147-15-011-004-1, 004147-15-011-005-1, 004147-15-011-006-1, 004147-15-011-007-1, 004147-15-011-008-1, 004147-15-011-009-1, 004147-15-011-010-1, 004147-15-011-011-1, 004147-15-011-012-1 and 004147-15-011-013-1" which said maps consist of thirteen (13) separate plans which are on file in the office of the Town Clerk of the Town of Jamestown.

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Bk: 1045 Pg: 32

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS, that the UNITED STATES OF AMERICA (the "United States"), acting by and through the Administrator of General Services (the "Grantor"), under and pursuant to the powers and authority contained in the provisions of the National Historic Lighthouse Preservation Act of 2000 (54 U.S.C. 305106), an amendment to the National Historic Preservation Act of 1966 (the "NHLPA"), having an address of the General Services Administration, New England Region, Thomas P. O'Neill, Jr. Federal Building, 10 Causeway Street, Boston, Massachusetts 02222, for and in consideration of ONE DOLLAR $1.00) does hereby GRANT, GIVE, REMISE AND RELEASE, without covenants, warranties or representations of any kind or nature, express or implied, unto THE STATE OF RHODE ISLAND, acting by and through the Department of Environmental Management a state organization under the laws of the State of Rhode Island and having an address of ONE CAPITOL HILL, PROVIDENCE RHODE ISLAND 02908 all such right, title and interest as Grantor has in the BEAVERTAIL LIGHT STATION (GSA Control No. RI-0511-AA), (Coordinates: 41° 26'46'N, 71° 27'53' W) and more fully and particularly described as:

> That certain lot, piece or parcel of land situated at 800 Beavertail Road, Town of Jamestown, Rhode Island, 02835 together with all buildings and improvements thereon and the appurtenance belonging to the property, more particularly described as follows:
>
> All that certain tract and parcel of land situated in the extreme southerly portion of Conanicut island, in the town of Jamestown, County of Newport, and State of Rhode Island, and lying and being southerly from and adjoining a certain lot of land belonging to the United States of America upon which the Beavertail Lighthouse so called is stationed, said first mentioned tract and parcel of land being within the limits of a line beginning at the southeasterly quarter corner of said mentioned lot of land belonging to the said United States and extending southeasterly to the low water mark of the sea, at an angle with the southerly line of said last mentioned lot of land 126°-15", East thence running westerly on the line of said low water mark to a point thereon where a line extending southwesterly from the southwesterly corner of said last mentioned lot, at an angle with the southerly line of said lot 124° 30; West, intersects the same, and thence northerly along said last mentioned line to the southwesterly corner of the last mentioned lot, and thence along said southerly line of said lotto the place of beginning (the Property). As more particularly delineated and attached hereto and incorporated herein as "Exhibit A"

The Property is conveyed subject to the covenants, conditions, and restrictions hereinafter contained as set forth in the NHLPA. The Property is conveyed subject to any and all existing reservations, easements, restrictions, covenants and rights, recorded or unrecorded, including but not limited to any easements, reservations, rights and covenants described herein; any state of facts that would be disclosed by a physical examination of the Property; any state of facts that an accurate and adequate survey would disclose; and any and all other matters of record.

CONDITION OF THE PROPERTY. The Grantee in accepting this deed acknowledges and attests that it has inspected, is aware of, and accepts the condition and state of repair of the Property. It is understood that the Property is conveyed "AS IS" and "WHERE IS" without any representation, warranty, or

guarantee of any kind or nature, express or implied, including without limitation, any representation, warranty or guarantees as to quantity, quality, title, character, condition, size, or kind, or that the same is in condition or fit to be used for any particular purpose. The Grantee in accepting this deed acknowledges that the Grantor has made no representation or warranty concerning the condition or state of repair of the Property that has not been fully set forth in this deed.

NOTICE OF LEAD BASED PAINT FOR REAL PROPERTY CONSTRUCTED PRIOR TO 1978. The Property contains no improvements defined by Title X as "target housing." However, in the event that the Property is converted to residential use, the Grantee covenants and agrees that in its use and occupancy of the Property it will comply with all applicable Federal State, and local laws relating to lead-based paint; and the Grantor assumes no liability for the damages, personal injury, illness, disability, or death to the Grantee, its successors or assigns, or to any other person, including members of the general public arising from or incidental to the purchase, transportation, removal, handling, use, disposition or other activity causing or leading to contact of any kind whatsoever with lead-based paint on the Property described in the Deed, whether Grantee and its successors or assigns have properly warned or failed to properly warn the individual(s) injured. Grantee further agrees to indemnify, defend, and hold harmless, the Grantor from any and all loss, judgment, claims, demands, expenses, or damages of whatever nature which might arise or be made against the Grantor due to or relating to the presence of lead-based paint hazards on the Property, any related abatement activities or the disposal of any material from the abatement process.

NOTICE & COVENANT REGARDING HAZARDOUS SUBSTANCE ACTIVITY

Notice Regarding Hazardous Substance Activity. Pursuant to 40 CFR 373.2 and Section 120(h)(3)(A)(i) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA)(42 U.S.C. 9620 (h)(3)(A)(i)), and based upon a complete search of agency files, the United States gives notice that no hazardous substances have been released or disposed of or stored for one year or more on the Property.

CERCLA Covenant. Grantor warrants that all remedial action necessary to protect human health and the environment has been taken before the date of this conveyance. Grantor warrants that it shall take any additional response action found to be necessary after the date of this conveyance regarding hazardous substances located on the Property on the date of this conveyance.

(1) This covenant shall not apply: (a) in any case in which Grantee, its successors or assigns, or any successor in interest to the Property or part thereof is a Potentially Responsible Party (PRP) with respect to the Property immediately prior to the date of this conveyance; or (b) to the extent that such additional response action or part thereof found to be necessary is the result of an act or failure to act of the Grantee, its successors or assigns, or any party in possession after the date of this conveyance that either: (i) results in a release or threatened release of a hazardous substance that was not located on the Property on the date of this conveyance; or (ii) causes or exacerbates the release or threatened release of a hazardous substance the existence and location of which was known and identified to the applicable regulatory authority as of the date of this conveyance.

(2) In the event Grantee, its successors or assigns, seeks to have Grantor conduct any additional response action, and, as a condition precedent to Grantor incurring any additional cleanup

obligation or related expenses, the Grantee, its successors or assigns, shall provide Grantor at least 45 days written notice of such a claim. In order for the 45-day period to commence, such notice must include credible evidence that: (a) the associated contamination existed prior to the date of this conveyance; and (b) the need to conduct any additional response action or part thereof was not the result of any act or failure to act by the Grantee, its successors or assigns, or any party in possession.

Reservation of Right of Access. Grantor reserves a right of access to all portions of the Property for environmental investigation, remediation or other corrective action. This reservation includes the right of access to and use of available utilities at reasonable cost to Grantor. These rights shall be exercisable in any case in which a remedial action, response action or corrective action is found to be necessary after the date of this conveyance, or in which access is necessary to carry out a remedial action, response action, or corrective action on adjoining property. Pursuant to this reservation, the United States of America, and its respective officers, agents, employees, contractors and subcontractors shall have the right (upon reasonable advance written notice to the record title owner) to enter upon the Property and conduct investigations and surveys, to include drilling, test-pitting, borings, data and records compilation and other activities related to environmental investigation, and to carry out remedial or removal actions as required or necessary, including but not limited to the installation and operation of monitoring wells, pumping wells, and treatment facilities. Any such entry, including such activities, responses or remedial actions, shall be coordinated with record title owner and shall be performed in a manner that minimizes interruption with activities of authorized occupants.

AIDS TO NAVIGATION. The United States Coast Guard ("USCG") is the Federal agency responsible for operating and maintaining any Federal aid to navigation ("ATON"). The ATON located at this Property in operation as of this date shall remain the personal property of the USCG and shall continue to be operated and maintained by the USCG for as long as needed for navigational purposes at the Property.

The Grantee acknowledges and agrees that it is accepting title to the Property subject to the rights of the USCG or its successor entity to keep, locate, access, service, install, operate, maintain, repair, replace, and remove ATONs at the Property. In furtherance of its right to continue such function, the Grantor, for the benefit of the USCG, its successors and assigns hereby expressly reserves perpetual and assignable the following rights and easements, which shall be exercised with reasonable notice to Grantee, except in emergency situations:

(1) An easement to keep, locate, access, service, install, maintain, operate, repair, replace, and remove ATONs and any and all associated equipment at the Property.

(2) An easement to relocate or add any ATONs and any and all associated equipment or make changes on any portion of the Property as may be necessary for navigational purposes.

(3) An easement over and across the Property in favor of the USCG for the purpose of servicing, maintaining, locating, operating, repairing, replacing and removing ATONs and any and all associated equipment on the Property. The USCG shall have the right to enter the Property at any time, with notice, for the purpose of maintaining the ATONs and performing the other functions contemplated herein. Access shall be across any portion of the Property as necessary. Upon

completion of the servicing, maintaining, operating, repairing, replacing and removing of ATONs and any associated equipment, the Property shall, at the sole cost of the USCG, subject to the availability of appropriated funds, be left as nearly as reasonably possible in the same condition as before any such work began.

(4) An easement for the purpose of preserving and maintaining a light beacon for an ATON with an arc of visibility between lines emanating from the center of the light beacon, with the stipulation that nothing will be constructed, maintained or permitted of a height sufficient to interfere or obstruct the said light beacon over the Property.

(5) An easement for the purpose of preserving and maintaining the CG-1000 foghorn which can be activated by Mariners needing foghorn assistance via a marine VHF-FM radio. The horn produces an acoustic pressure of 143 decibels at the mouth and falls off to roughly 126 decibels at 25 feet.

(6) The Grantee covenants for itself, its assigns and successors, that it shall not interfere with or allow interference in any manner with any ATONs or associated equipment, nor hinder activities required for the operation and maintenance of any Federal aid to navigation or associated equipment, in use at the Property without express written permission from the Grantor. The Grantee further covenants for itself, its assigns and successors, to maintain the Lighthouse in good repair and in a clean and safe condition in a manner that will not interfere with the Grantor's use of the Property granted herein.

APPLICATION TO THE NATIONAL PARK SERVICE – BINDING AGREEMENT
The Property is subject to the terms, conditions, restrictions and covenant set forth in its application for the Property to the Department of Interior dated October 15, 2021 and subsequently accepted by the Department of Interior, and incorporated herein by reference. The application constitutes a binding agreement in its entirety between the Grantee and the Federal government and shall remain in effect unless written modifications are agreed upon by both parties. Relevant provisions of the application pertaining to historic preservation, use and access are attached as Exhibit B.

HISTORIC PRESERVATION COVENANTS. The Property is listed on the National Register of Historic Places. The Grantee in accepting this Deed acknowledges and accepts the following conditions and covenants, to be effective for the period the Lighthouse is on the Property:

1) Grantee shall maintain and preserve the Property in accordance with the recommended approaches in *The Secretary of the Interior's Standards for Treatment of Historic Properties, Standards for Preservation (Technical Preservation Services for Historic Buildings, National Park Service)* in order to preserve and enhance the distinctive materials, features and spaces that make the Property eligible for inclusion in the National Register of Historic Places.

2) When rehabilitation is the appropriate treatment, Grantee shall rehabilitate the Property in accordance with the recommended approaches in *The Secretary of the Interior's Standards for Treatment of Historic Properties, Standards for Rehabilitation (Technical Preservation Services for*

Historic Buildings, National Park Service). Rehabilitation is appropriate when repair and replacement of deteriorated features is necessary or when alteration or additions to the Property are planned.

3) Distinctive materials, features, finishes, construction techniques and examples of craftsmanship that characterize the Property shall be preserved.

4) Plans of proposed rehabilitation, construction, alteration or replacement of distinctive materials, features, finishes or spaces which would affect the appearance or structural integrity of the Property shall be reviewed and approved by the Secretary of the Interior ("Secretary") in consultation with the Rhode Island State Historic Preservation Officer ("SHPO") for consistency with *The Secretary of the Interior's Standards for Treatment of Historic Properties.*

5) The SHPO shall be permitted at all times with notice to inspect the Property in order to ascertain if the above conditions are being observed.

6) The covenants, conditions and restrictions contained herein shall be inserted by the Grantee verbatim or by express reference in any instrument by which it divests itself of interest in the Property or by which it grants any interest in the Property.

7) The failure of the Secretary, the Administrator or the SHPO to exercise any right or remedy granted under this instrument shall not have the effect of waiving or limiting the exercise of any other right or remedy or the use of such right or remedy at any other time.

8) The Grantee agrees that the SHPO may at its discretion without prior notice to the Grantee convey and assign all or part of its rights and responsibilities contained herein to a third party.

9) Ground Disturbing Work. Grantee covenants and agrees to not perform material disturbance of any ground surface not already excavated as part of previous construction of the existing buildings on the Property without first developing a monitoring plan for consent by the Narraganset Indian Tribe's Tribal Historic Preservation Officer (THPO) and the SHPO, which shall not unreasonably be withheld or delayed. In any event, THPO and SHPO shall respond to any request for consent within thirty (30) days (except under extraordinary circumstances) or such consent shall be deemed to have been given. Grantee hereby covenants and agrees that all work carried out pursuant to this covenant shall be conducted by or under the direct supervision of an individual or individuals who meets, at a minimum, the applicable Secretary of the Interior's Professional Qualifications Standards for conducting the appropriate work.

Upon discovery of archeological and/or cultural resources located on the Property, Grantee, for itself and its respective successors and assigns, covenant and agree to immediately cease any work in the vicinity of the discovery and notify the THPO and SHPO in writing of such discovery. In addition, the Grantee or its successors and assigns, shall immediately consult with the THPO and SHPO with the goal of avoiding and minimizing any potential adverse effects on such archaeological and/or cultural resources. If a potentially National Register-eligible

archaeological and/or cultural resource of potential religious and cultural significance to a federally-recognized Tribe ("Tribe") is discovered, the Grantee, or its successors and assigns, shall also consult with that Tribe in accordance with 36 CFR § 800.13, and applicable federal and state laws and regulations."

10) The covenants, conditions and restrictions set forth in this Historic Preservation Covenant shall constitute a binding servitude upon the Property and shall be deemed to run with the land on which the Property is situated. All the covenants, conditions, restrictions and obligations described are binding upon the Grantee and its heirs, successors and assigns.

OTHER LAWS. The Grantee by acceptance of this Deed covenants and agrees for itself, its successors and assigns to comply with all Federal laws relating to nondiscrimination in connection with any use, operation, program, or activity on or related to the Lighthouse, including, but not limited to:

(1)All requirements imposed by or pursuant to the regulations of the United States Department of the Interior (43 CFR Part 17);

(2)Title VI of the Civil Rights Act of 1964 (42 USC § 2000d-1), which prohibits discrimination on the basis of race, color, or national origin;

(3)The Age Discrimination Act of 1975, as amended (42 USC § 6101 et seq.), which prohibits discrimination on the basis of age;

(4)Section 504 of the Rehabilitation Act of 1973, as amended (29 USC § 794), which prohibits discrimination on the basis of handicap;

(5)The Architectural Barriers Act of 1968, as amended (29 USC § 4151), which requires facilities located on the property to be accessible to the physically handicapped; and

(6)The Americans with Disabilities Act of 1990 (42 USC § 12101 et seq.), which requires that no otherwise qualified handicapped individual shall, solely by reason of his or her handicap, be excluded from the participation in, be denied benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance.

REVERSIONARY INTEREST OF THE UNITED STATES. All right, title, and interest in and to the Property shall revert to the United States of America (the "Government") at the option of the Administrator of the General Services for noncompliance with any of the terms and conditions of this Declaration (see 54 U.S.C. 302102) including, but not limited to the following:

(1) The Property, any part thereof, or any associated historic artifact ceases to be available for education, park, recreation, cultural, or historic preservation purposes for the general public at reasonable times and under conditions which shall be set forth in the Grantee's application; or

(2) The Property or any part thereof ceases to be maintained in a manner that ensures its present or future use as a site for Federal aid to navigation; or

(3) The Property, or any associated historic artifact associated with the Property ceases to be maintained in compliance with the historic preservation covenants, conditions, and restrictions set forth in this Deed; or

(4) The Grantee sells, conveys, assigns, exchanges, or encumbers the Property, any part thereof, or any conjunction with any associated historic artifact, without approval of the Secretary;

(5) The Grantee conducts any commercial activities at the Property, any part thereof, or in conjunction with any associated historic artifact, without the approval of the Secretary; or

(6) At least 30 days before reversion, the Grantor provides written notice to the Grantee that the Property, or any part thereof, is needed for National Security Purposes.

The Grantee by its acceptance of this deed covenants and agrees for itself and its successors and assigns that in the event that the United States of America exercises its power to terminate the Grantee's interest in the Property, then the Grantee shall provide protection to and maintenance of the Property at all times until such time as the title is actually reverted, including the period of any notice of intent to revert. Such protection and maintenance shall, at a minimum, conform to the standards prescribed by the GSA in its Federal Property Management Regulation in effect at the time of the reversion.

All of the covenants, conditions, restrictions, and obligations described in this Deed, run with the Property and are binding upon the Grantee and its heirs, successors, and assigns. Grantee's acceptance of this Deed is an acknowledgement that it is bound by all such covenants, conditions, restrictions, and obligations.

TO HAVE AND TO HOLD the Property with all privileges and appurtenances thereunto belonging to said Grantee.

IN WITNESS WHEREOF, the UNITED STATES OF AMERICA, acting by and through the Administrator of General Services has caused these presents to be duly executed for and in its name and behalf by John E. Kelly, Director, Real Property Disposition, General Services Administration New England Region, who has this 20th day of December 2023 hereunto set his hand and seal.

UNITED STATES OF AMERICA
Acting by and through the
ADMINISTRATOR OF GENERAL SERVICES

_____

John E. Kelly, Director
Office Real Property Disposition
Public Buildings Service

Commonwealth of Massachusetts)
County of Suffolk) ss.

In Boston, in said County and State, on this 5th day of December 2023, before me, the undersigned notary, personally appeared John E. Kelly, Direct of Property Utilization and Disposal, Public Buildings Service, General Services Administration, Boston, Massachusetts, proved to me through satisfactory evidence of identification, which was a U.S. General Services Administration ID card, to be the person whose name is signed on the preceding instrument and by him duly executed, to be his free act and deed in his capacity as Director of Property Utilization and Disposal, General Services Administration Boston, Massachusetts and the free act and deed of the Grantor.

Bryna P. Ronan,
~~Carol H. Chirico,~~ Notary Public Bryna P. Ronan
My commission expires: ~~November~~ January 30, 2030

Accepted on behalf of the State of Rhode Island:

WITNESS:

Suzanne Arneault

STATE OF RHODE ISLAND, DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

By: Terrence Grey
Terrence Gray, P.E., Director

WITNESS:

Mary Bassolino

STATE OF RHODE ISLAND,
DEPARTMENT OF ADMINISTRATION

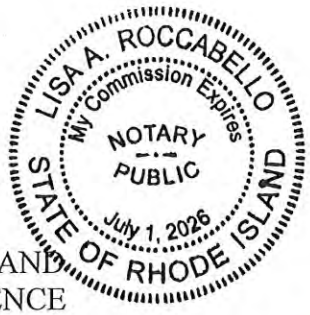
By:
Jonathan Womer, Director

STATE OF RHODE ISLAND
COUNTY OF PROVIDENCE

In Providence, in said County and State, on the 30th day of October, 2023, before me personally appeared Terrence Grey, P.E., the Director of the STATE OF RHODE ISLAND, DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, to me known and known by me to be the party executing the foregoing instrument for and on behalf of the STATE OF RHODE ISLAND, DEPARTMENT OF ENVIRONMENTAL MANAGEMENT and he acknowledged said instrument by him executed to be his free act and deed, his free act and deed in his capacity as aforesaid, and the free act and deed of the STATE OF RHODE ISLAND, DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.

Lisa A. Primiano

DOC: 20240000065366
Bk: 1045 Pg: 40



Notary Public
My Commission Expires: 07/01/2026

STATE OF RHODE ISLAND
COUNTY OF PROVIDENCE

In Providence, in said County and State, on the 22nd day of November, 2023, before me personally appeared Jonathan Womer, in his capacity as the Director of the STATE OF RHODE ISLAND, DEPARTMENT OF ADMINISTRATION, to me known and known by me to be the party executing the foregoing instrument for and on behalf of the STATE OF RHODE ISLAND, DEPARTMENT OF ADMINISTRATION and he acknowledged said instrument by him executed to be his free act and deed, his free act and deed in his capacity as aforesaid, and the free act and deed of the STATE OF RHODE ISLAND, DEPARTMENT OF ADMINISTRATION.

Notary Public
My Commission Expires: January 17, 2024

DOC: 20240000065366
Bk: 1045 Pg: 41

STATE PROPERTIES COMMITTEE

APPROVED this 14th day of November 2023 by the State Properties Committee.

APPROVED AS TO TERMS:
AND CONDITIONS:

By: _____
Its: Chairperson

APPROVED AS TO FORM:

By: _____
Its: Designee of the Attorney General

APPROVED AS TO SUBSTANCE:

By: _____
Its: Designee of the Director,
Department of Administration

APPROVED AS TO SUBSTANCE:

By: _____
Its: Public Member

APPROVED AS TO SUBSTANCE:

By: _____
Its: Public Member

DOC: 20240000065366
Bk: 1045 Pg: 42

EXHIBIT A

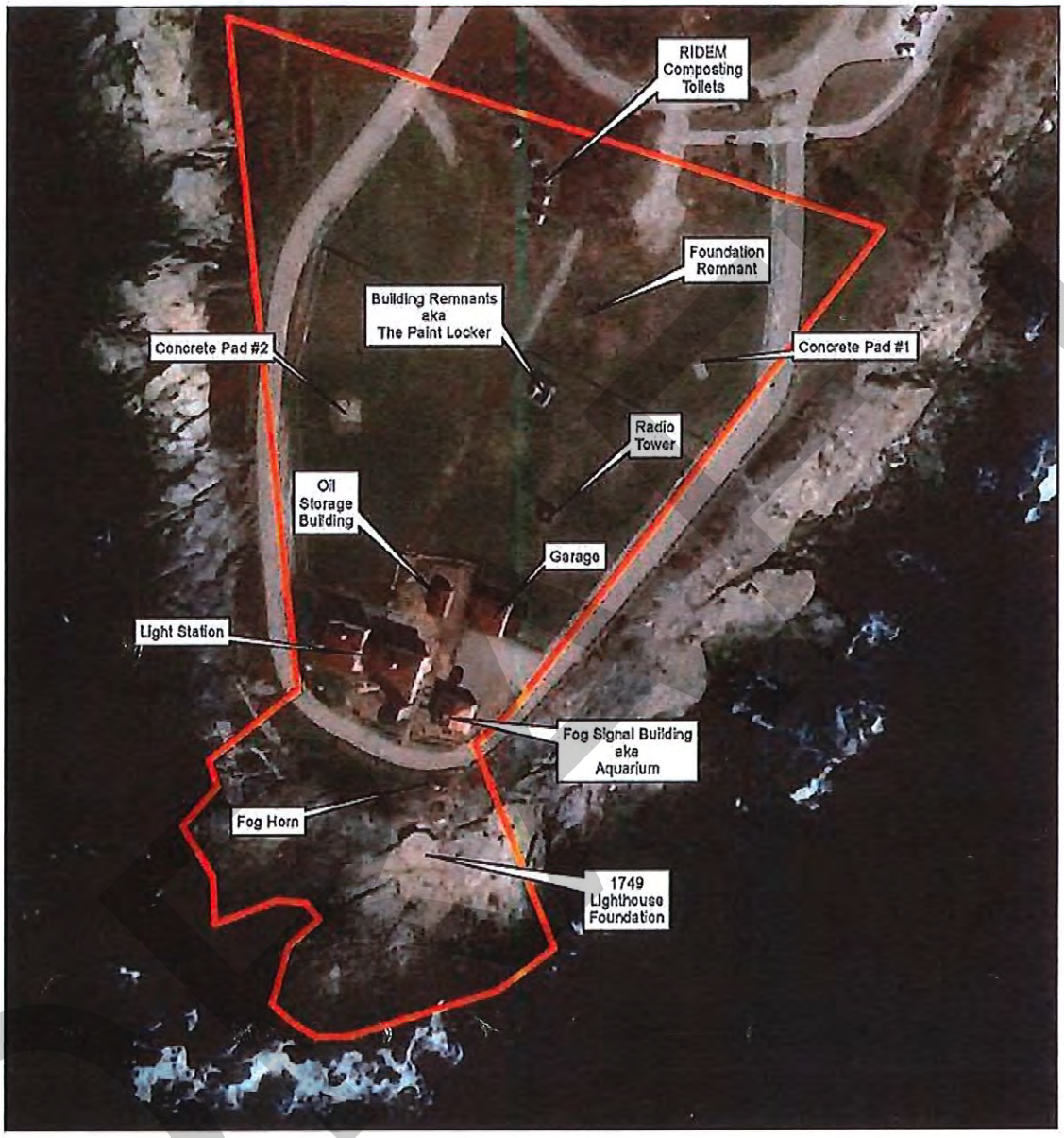


EXHIBIT B
SELECTED PROVISIONS FROM RIDEM APPLICATION TO NATIONAL PARK SERVICE DATED OCTOBER 15, 2021

USE PLAN

RIDEM and Beavertail Lighthouse Museum Association have been in partnership stewarding both properties, hosting several hundred visitors daily, and making it one of the top destinations in the state for 25 years. RIDEM and BLMA plan to continue to use the property in the same manner it has been used for the last 25 years, an open free admission museum and aquarium with lectured tour groups for senior visitors, school children, assemblages, and public attendance. This includes access into the five structures containing museum exhibits, displays, and a gift shop. Below is a description of the uses for both the light station and the Beavertail State Park.

MANAGEMENT PLAN

As mentioned previously RIDEM, BLMA, and the Town of Jamestown signed a MOU to collaboratively undertake this application for the conveyance of the Beavertail Light Station to RIDEM. The memorandum defines the responsibilities of the parties and future roles and responsibilities related to ownership, operation, maintenance, preservation, and public use of the historic site. The agreement notes that RIDEM would be the designated owner of the light station property, if it were to be conveyed from the National Park Service. BLMA's responsibilities include securing grants and fundraising for the development and implementation a master plan of the light station and grounds. The Town of Jamestown is responsible for providing public safety patrols in conjunction with RIDEM Environmental Police and Park Rangers, assisting with safe evacuation in the event of a disaster, assisting with public works services, supporting grant based fundraising activities, and supporting tourism including concerts, art and craft exhibits, school visitations, and group tours.

ORGANIZATIONAL STRUCTURE

RIDEM is one of 38 state government executive agencies that execute the governor's policies and goals for the state. The Governor has checks and balances on his abilities which are governed by the Rhode Island State Constitution and overseen by the legislative and judicial branches. RIDEM is overseen by a Director and two Deputy Directors. There are 401 authorized full-time positions within three programs, the Office of the Director, the Bureau of Environmental Protection, and the Bureau of Natural Resources. As of the pay period ending on October 14, 2021, RIDEM has 382 filled positions. Within that, the Division of Parks and Recreation is overseen by an administrator and two deputies. There are currently 51 full-time equivalent filled positions of the 55 authorized positions with the Division. RIDEM Parks and Recreation will continue to manage the light station consistent with the best management practices.

BLMA has an executive staff comprised of a President, Vice President, Secretary and Treasurer. Its ten-member Board of Directors are assigned as Committee Chairpersons or members to Finance, Gift Shop, Membership, Public Relations, Fundraising, Buildings & Grounds and Program Development committees. Subcommittees, such as docent training, tour group visitations and preservation projects, are staffed by volunteers. The Board meets monthly or as necessary to address business needs and conducts an annual membership meeting in August of each year.

The Beavertail State Park Advisory Committee "Committee" is an oversight committee that has existed since the State Park was established and is comprised of five members. Three of its members are selected and appointed by the governing body of the Town of Jamestown and includes a member of BLMA. One of its members, the Chairman is chosen by the Director of RIDEM. The fifth member shall be mutually chosen by the Town of Jamestown and RIDEM, who must be a Rhode Island citizen who is not a resident, permanent or seasonal, of Jamestown, and is knowledgeable in matters of environmental protection and preservation.

The Committee meets twice a year and provides status, policy and development recommendations in respect to the Park. Since the Park adjoins the light station geographically many regulations are accepted and applied to light station visitors to be consistent with the park visitor attendees. Over the years, BLMA reports activities and developments at the light station for the committee's information. This Committee will continue in the same manner upon transfer of the property.

RESTRICTIONS ON USE

Pursuant to the NHLPA, conveyance is subject to the following restrictions imposed on the Property, necessary to ensure that the objectives of the NHLPA are met. In accepting this Quitclaim Deed, the Grantee hereby covenants and agrees that:

(1) Grantee shall, at its own cost and expense, use and maintain the historic light station in accordance with the plans described in the Application to Obtain Historic Light Station Property, (the "Application"), incorporated herein by reference, with the same force and effect as if herein fully set forth. Proposed changes to any part of the Application shall be reviewed and approved by the National Park Service, acting on behalf of the Secretary of the Interior (the "Secretary"), in consultation with the State Historic Preservation Officer of the State in which the historic light station is located (the "SHPO").

(2) Grantee shall make the historic Light Station available for education, park, recreational, cultural or historic preservation purposes for the general public at reasonable times and under reasonable conditions.

(3) Grantee shall not sell, convey, assign, exchange, or encumber the Light Station, any part thereof, or any associated historic artifact conveyed to the Grantee in conjunction with the Property, including but not limited to any lens or lantern, unless such sale, conveyance, assignment, exchange or encumbrance is approved by the Secretary.

(4) Grantee shall not conduct any commercial activities at the historic Light Station, other than any such activities contemplated by the Application, incorporated herein by reference, unless such commercial activity is approved by the Secretary.

--
Official Receipt for Recording

Town of Jamestown
93 Narragansett Ave.
1st Floor
Jamestown, RI 02835
401-245-7340

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QC DEED
Doc #: 20240000065366
Book / Page: 01045 00032
Recorded: 01/03/2024 02:43:03 PM

Total Fees: $0.00
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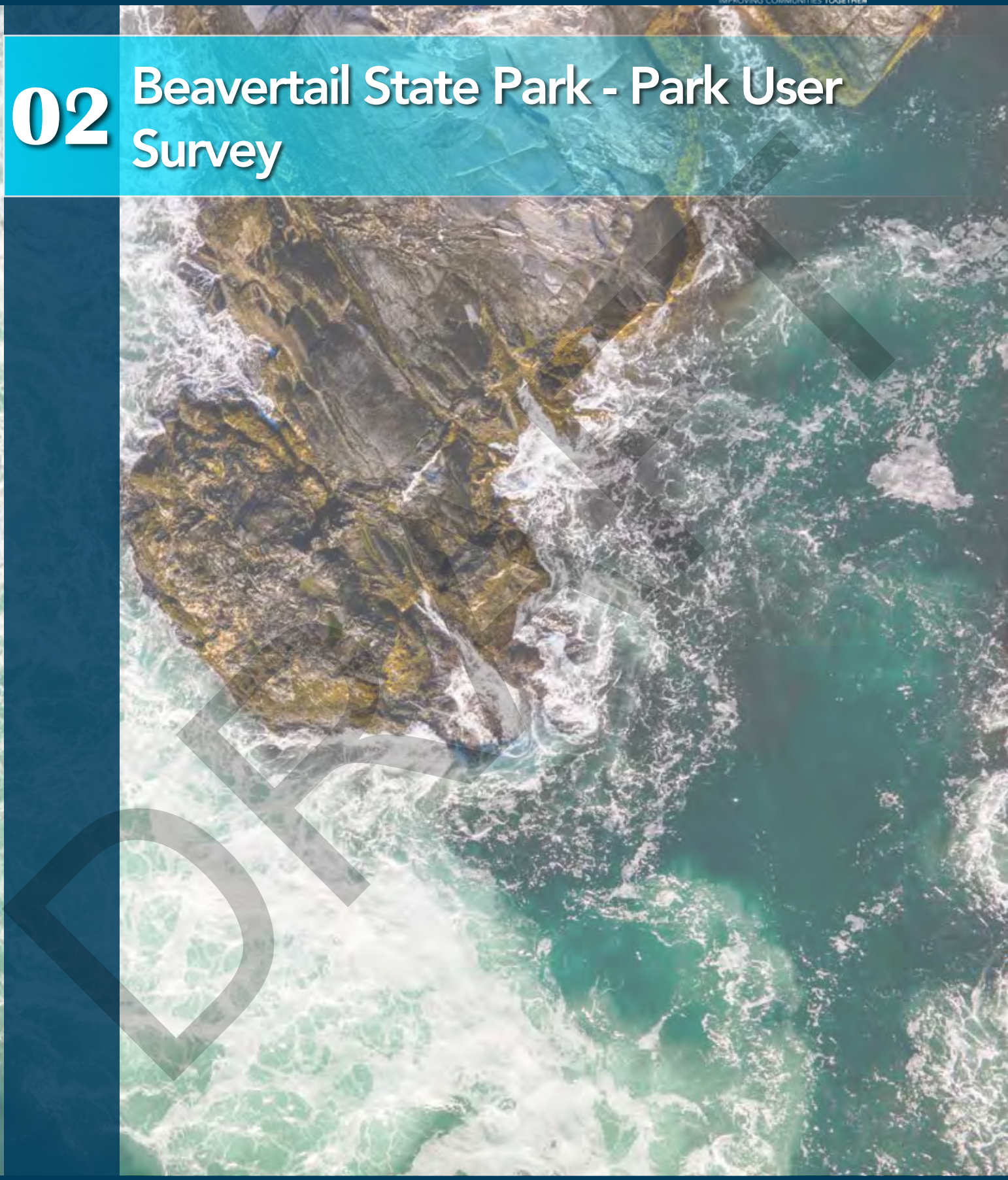
Total Documents: 1
Cashier: Keith Ford
Comment:

Receipt #: 12057
Date: 01/03/2024 02:43:03 PM

Thank You
Roberta J. Fagan

BETA
IMPROVING COMMUNITIES TOGETHER

02 Beavertail State Park - Park User Survey



Beavertail State Park Visitor Survey

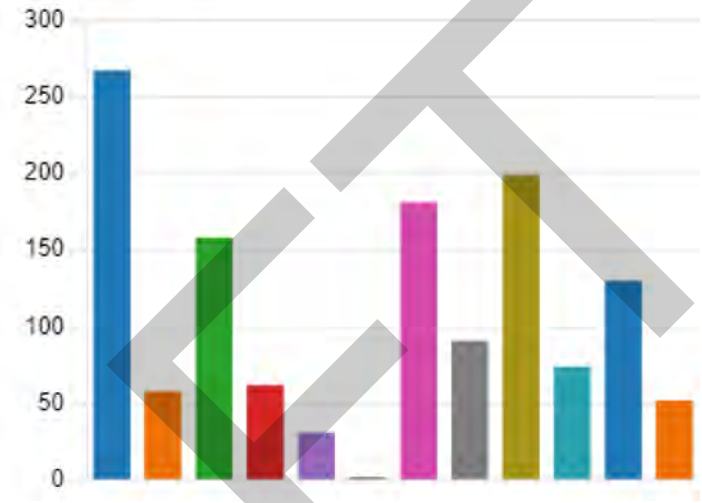
296	13:23	Active
Responses	Average time to complete	Status

1. Please select the choice below that best describes your visitation to Beavertail State Park.

First time visitor	21
Visit less than 3 times/ calendar ...	40
Visit 3-10 times/ calendar year	91
Visit more than 10 times/ calen...	124
Other	17

2. Tell us your primary reasons for visiting Beavertail State Park? Please select all that apply.

Scenery/ Ocean views	267
World War II History	58
Beavertail Lighthouse	158
Aquarium	62
Fishing	31
Hunting	2
Walking trails	181
Picnicking	91
Ocean air	199
Exploring marine habitat	74
Photography	130
Other	52



3. Are there aspects of Beavertail State Park you would like to learn more about? Please select all that apply.

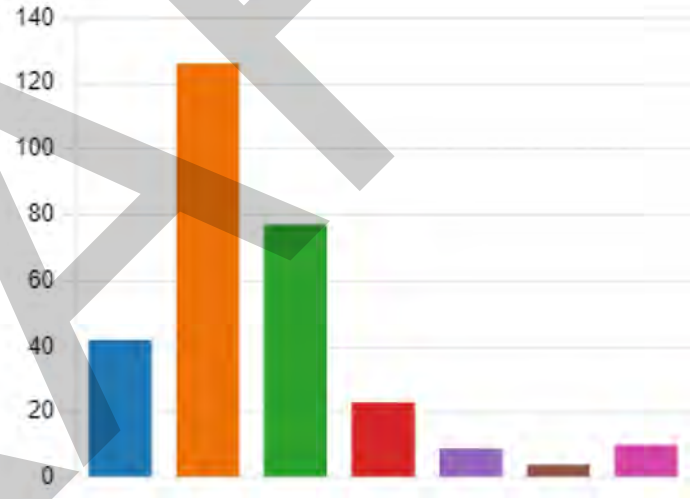
Beavertail Lighthouse	120
Ecology - Birds & Wildlife	180
Marine life	146
World War II History	129
Other	12

4. When you visit Beavertail State Park, how many people are usually in your group, including yourself?

1	51
2	152
3	44
4	28
More than 4	18

5. On your last visit, where did you park your vehicle? (See map)

Parking Lot 1 (North-West Red T...	42
Parking Lot 2 (South-West Blue ...	126
Parking Lot 3 (South-East)	77
Parking Lot 4 (North-East Green...	23
Along the park road	9
I do not remember	4
Other	10

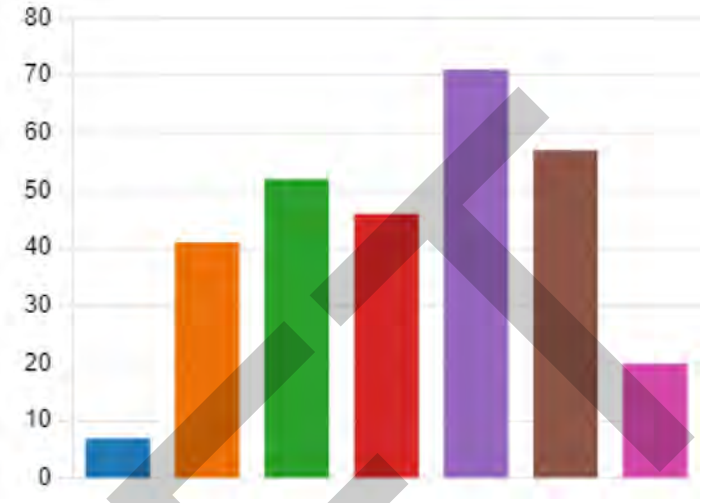


6. The last time you visited the park, did you have trouble finding a place to park?

Yes	47
No	244

7. Please indicate your age.

18-24 years	7
25-34 years	41
35-44 years	52
45-54 years	46
55-64 years	71
65-74 years	57
75 years+	20



8. The last time you visited the park, were there children in your group? If so, please indicate their age range(s). Select all that apply.

0-3 years	21
4-8 years	22
9-12 years	23
13-18 years	21
None	223

9. How long is your typical visit to Beavertail State Park?

Less than 1 hour	38
1-2 hours	161
2-4 hours	82
More than 4 hours	11

10. Are there improvements to Beavertail State Park that you would suggest to make visiting the park more enjoyable?

179
Responses

Latest Responses

"It's probably too late, but all those boulders everywhere are a ...

"A Dells truck ;p"

"I'm sure there are tons of good suggestions on what to add, bu...

37 respondents (**21**%) answered **trails** for this question.

11. Are there any other thoughts you would like to offer for this master planning effort as we think about the future of Beavertail State Park? Let us know in the comment box below and/or come to our Public Meeting on September 27th at the Jamestown Community Center starting at 5pm. Thank you for your responses!

125
Responses

Latest Responses

"I am glad there are no waste cans or picnic tables as there wo..."

"Beavertail rules come here for a zen walk"

26 respondents (**21**%) answered **park** for this question.

10. Are there improvements to Beavertail State Park that you would suggest to make visiting the park more enjoyable?

More parking
Having a visitor center with parking and an improved aquarium.
More signage regarding dog regulations
More history of WIi access to the house museum of radio I hear about
More parking. You used to allow parking on the grassy area near parking lot 2.
Trash recepticals
Picnic tables and park benches and trash cans and dog waste disposal
Bathroom at North West parking area
There should be trash cans for dog waste.
Provide a water fountain for filling water bottles. Allow parking in the west field that is now surrounded by rocks.
Make repairs to the road around the lighthouse to preserve it for walking and to save the lighthouse. Thank you for all that you do to maintain this treasure!
Working restrooms, welcome center, more parking in areas that do not block the views, cut some brush down to better see views
Get rid of poison ivy
Safer trails
Do some about the erosion. Remove asphalt around the lighthouse loop. Keep cars off the grass. Maintain paths to cut down on ticks.
Picnic tables ,,more inside parking ,,make old road pedestrian,,bike,,walkway
Better marked hiking trails
Either a constructed restroom or better maintained outdoor porta potties. The current setup reminds me of a temporary event installation.
Fix the erosion around the lighthouse loop. Parking Lot 2 has been roped off and parking is greatly reduced. Reopen some of the grassy area for parking.
Don't prohibit climbing on the rocks. Add restrooms in parking areas 1 & 4
Make old road a walking path
Food concession stand or trucks
More parking
Better Handicap Parking!
Also, remove the rocks, opening the grassy area next to parking lot 2, to allow more parking. It was the over use during COVID that ruined the grass.
Outdoor accessible tidepools, overlook, limited tent camping (2-5 spaces)
better trail surfacing
more paths to explore
Preventing parking in the grassy area at lot number one seems to not have been a good idea. Instead of parking there, visitors park along the road, most particularly on the curve at the tip of the road. This seems dangerous to me. I think parking should be prohibited along that stretch of the road.
I love how parking on the lawn is no longer allowed - restricting the number of visitors at one time really enhances the experience.
Food trucks and drinks
We hope you can fix the road all the way around the point, like it was before the storm damage.
STOP BLOCKING THE PARKING AND TURNING IT INTO A GOVERNMENT SIGN CAMP. NO WHERE TO PARK
Try to leave things relatively the way they are!

One (short) section of the trail along the water about mid way on the West side is muddy almost all the time. A boardwalk with a 4 x 4" (?) base resting on the ground would VASTLY IMPROVE the walk. (The King/ Benson preserve in North Kingstown has several of these of varying sizes throughout the area.) Only one section of the trail at Beavertail would need this.
Another bench under the large beautiful tree at the northern dead end of the West side waterfront trail would also be a delightful addition.
Thanks for improving the landscape/ mowing maintenance this season! It looks better than it has in years!

Open the park and back up and quit closing things off. I've been coming here for 40+ years and you guys are just taking everything away from us.
Fill in some of the holes. I know that's difficult with erosion.
Most state park visits we do, we usually find that there is a sizable contingent of visitors that seemingly drive in circles around the park, to the detriment of those who prefer to enjoy the park on foot. Though we haven't been to Beavertail State Park since the lower loop was closed to car traffic, I think any effort made to separate car and foot traffic would make the parks much more enjoyable.
fix trail erosion and wetness
make pocket beaches more accessible
better facilities and bathrooms
utilize dead space… like brushy area in center of park
Bathrooms. Allow grilling. Area for food trucks 1x/week.
Expand on the aquarium
Create some kind of circuit trail like at Sachuest NWR and move driving away from edge. Keep as much coastal shrub as much as possible without sacrificing views. Reduce erosion points, the last time I was there I observed lots of erosion at un-designated coastal trails.
While it would be nice to have a cleared path to see the BUT to me, habitait for migrating birds and deer hiding from hunters is more important than clearing any vegetation.
Small increase in parking, Interpretive Programming. Improved trails
Trash cans please add trash cans
Better walking trail loop along the water and separated from car traffic.
None right now
Address the section of trail along the west side that is always muddy. Enforce that all dogs must be leashed at all times. Consider providing trash cans near lighthouse.
Restoration of coastal scrubland, removal of invasives.
More effort to remove invasive plants, and restore maritme shrublands and Forest.

I know open mowed areas are desireable for the public, but more effort could be put into managing much of the field/current open space as meadows (rather than mowed fields) for wildflowers, pollinators, birds, and other
Just regular maintenance is fine, that seems to be RIDEMs problem… maintenance.
Maintain (mow & trim) the walking paths on the East side to ledges & coves better. Put in stairs (rock or wooden) down to the steeper coves that are dangerous to traverse.
more benches, more clear signage for walking paths, more historical signs throughout the property and signs along the paths that state what the view is of from that spot.
Benches
Returning the center grass area near parking area 2 to parking access. Recreate easy access to rocky shore front - enter at your own risk. Improve trails to the rocky shore area near parking lot 2.
More signs giving descriptions of everything
Easier walking paths

Improve maintenance of hiking trails, mark them and have maps of trails available. A fishing pier would be awesome there too
add picnic tables and a children's play area
No
Trail maintenance and markers
Add life rings to areas that people fish and explore tidal pools.
It would be great if the trails were wider/cleared. The tick problem there is a huge deterrent.

I like that they've offered more community programs lately (Jellyfish Night, Yoga). I'd like to see improvements to the space for programming. Maybe a patio area? Stage/flooring area?

We visit the aquarium often! We think the workers there are the absolute best. It would be great to upgrade that space and broaden hours beyond summer hours.
Picnic tables
Maybe better bathrooms.
No, it's perfect the way it is
Active clearing is currently happening during migration, but I understand if necessary right now for the waterline work. Active mowing is also going on when I am trying to walk the trails looking for migrating birds Off-leash
Opening the area around the high wire lines to create a path is practical and adds a new path for birders.
Increased parking while maintaining the trees and bushes for birds.
I think having the bathrooms more centrally located would be more convenient because there's no parking down by the current location.
No dogs
Fortify the coastline.
I have loved Beavertail as is since I was a little girl...please don't change a thing!
Improve accessibility the platform on the rocks in front of the lighthouse
It's perfect as is, maybe some picnic tables in the field behind the lighthouse and fix whatever is going on with the water line but it's an ideal natural and mostly peaceful spot that we have loved visiting for decades.
none
Fishing pier; structures for better water access; improved hiking trails & marks
Nothing to improve. Leave the natural habitat alone
I was a bit confused by the trails. Better signage would be helpful. Beautiful spot to visit. Plus handicap accessibility to lighthouse area would be helpful. Thank you!
Plant more native plants to keep the birds local and keep trails clean and cleared
Better bathroom facilities
Now that motor vehicles are no longer allowed near the lighthouse walking on the road is pleasant and no longer treacherous... Suggestions: Benches for sitting along the cliffs would be great, as well as safe walkways with stairs for access to the lower cliffs on the west side of the park.
None, please don't make changes
Create more trails and add and update interpretive signage.
Remove the now-blocked and -unused road around the point.
Add nighttime programs
The blue trail specifically had some very very muddy sections year round. A more permanent wooden walkway would be greatly appreciate/would contribute to less disturbance on the soil. Other than this I absolutely love everything about Beavertail and hope that there is minimal new development if any on the surrounding

I have been shocked at the erosion of the short trails to the rocks that has taken place in the past few years. Far more than in the 40 years I've been going to Beavertail. Now permanent signs say "Keep off the rocks" when the main point of going to Beavertail is clambering around the rocks! I would be sad if that experience is taken away. There are plenty of places to watch the sunset in RI, but nowhere has rocks like Beavertail.
I think it's great as is, i've been going there since i was a child and love the views and open space. i recommend repairs to the road encircling the light house.
If you're looking to revamp anything maybe having an aquarium that is on par with Bristol's Audubon or Newports save the bay. That would definitely be an added draw on top of the breathtaking views.
I don't believe revitalizing is needed. Beavertail is a little wild and self stewarded, that's what makes it wonderful. I think accessibility for disabled people could be addressed. And I believe since all coastal land in RI is so white and wealthy, there are people who live in RI that have never been to the beach. I would like to include all of those people to the large variety of coastal ecosystems RI has to offer. Beavertail needs to continue to be a
Operational/unlocked bathrooms year round
It's perfect as is.
The trash left by others is beyond disrespectful to all. There should be steep fines
Stair cases. I am getting too old to try climbing down 40 ft cliffs, then jumping rocks. Then have to climb back up with gear. Stair cases would be nice
Fix erosion and that's it
Appreciate the mowing of the paths and trail markers. Love the fishermen using the spot. I've come across many list in the trails lately. Maybe have some 'you are here' signs along the way?
Garbage cans
Keep the open spaces and preserve natural beauty of the park
Please let the Army corps of engineers reinforce the road around the lighthouse so it will be open again to the
Poison ivy can be difficult to avoid. Always vigilant.
Binoculars you can check out and return after a few hours
Reusable (laminated) ecology treasure check lists for kids
Love the opening of more trails on west side, maybe widening trail a bit where it's very very wet/so that sun can dry out?
A few dog bag bins in parking lot?
Maybe opening trails along the northeast part of park?
N/A
24 hour historic surfcasting access is very important at Beavertail State Park and other state parks. It is probably one of the few "historically legitimate" nighttime activities at state parks. Consider a "Fishing Vehicle Parking Permit System" similar to the city of Newport's that will allow authorities to know which vehicles belong to surfcasters, especially after dark. Our Newport Fishing club also works with state authorities at Brenton Point
no i think it's a very good experience
More parking would be helpful as a lot of parking areas are filled and causes traffic.
Indoor bathrooms
Clear the invasive thorns, poison ivy and bittersweet so that we can find a tree under which we can sit to get out
I would like to see the road around the lighthouse opened to drivers during the off season. It is a wonderful winter drive not unlike ocean drive in Newport. Also there should be a separate pedestrian path. The road is a great way to see the ocean if you are not that mobile or when the weather or inclement.
Maybe better signage for the trails? I've gotten all turned around back here. This is my happy place. I love Beavertail with all of my heart. <3
Yes! We would like to see the aquarium open longer and more often. The aquarium is our favorite part in addition to being able to walk around outside and see the ocean. However, in all of my time, I've never been able to go up into the lighthouse because it's always closed. So expanded hours that would be good too.

More oversight as per parking rules, and garbage
Either make it a “quiet” park or designate a specific day per month for drones. It’s very disturbing to have a drone hovering over you while you are trying to get some peace & serenity. Better enforcement of the parking.
Guests are ruining the siding of the roads and they are expensive to fix.
Lights in the bathrooms
Please protect the road from washing out around the lighthouse
More effort in removing invasive plants and restoring maritime shrub and forest habitats
The new keep off rocks signs are silly, it’s the entire point of me going there. Beavertail is the best place in RI to glimpse the Cambrian period. It would be great if there was some interpretive signage about the unique geology, and even better if there could be a display of a Paradoxides trilobite, because this is one of the only
Greater effort to preserve the space for wildlife and birds, eradicate invasive plants, and deal with erosion.
Honestly, I think the park is fine as is.

Would be nice if poison ivy was removed from trails.

Would be nice if lighthouse museum was developed a bit more.

Marine exhibit a bit shabby.

Perhaps rebuild fishing pier/extensions that used to exist.

Reopen the lighthouse loop. It is a scenic drive and the elderly in our group can no longer experience it up close.
Maybe add a hand washing station outside the restrooms?
Repair the road around the lighthouse or open it to motorcycles only. Repair and prevent further erosion of the road and grassy areas around the lighthouse and parking areas. I come to "The Beav" 2 - 3 times a week from May to December and the rapid erosion is very evident and troubling. Please preserve the most beautiful place
Fix the erosion problems.
Big issue with the blocked off road by lighthouse!!! My wife had bike accident when did not see chain and other person i know did not see early morning.. If know route well then not expecting it first time.. please fix this !!
A water fountain. And a few placards explaining what we are looking at. Maybe also some placards about history and the geologic formations.
More outdoor signage to learn about the nature, wildlife, and geology would be great!
Trails tiny bit wider so no stray branches sag into the trail. Tick conscious
I love the park! It’s simple and has very natural feeling trails! I am never quite sure when the aquarium and lighthouse will be open, but that doesn’t really impact my visiting.
Remove Invasive plants, plant native plants.
Put up barriers, like the boulders that are protecting some of the park lawns, so people don't park on the lawn.

Perhaps small signs in areas that have significance to educate visitors whether it's habitat, wildlife, Ft. Burnside, etc.

I know people have suggested building a visitor's center but I don't belief the park needs that. Small, unobtrusive signs would serve the purpose. Adding a visitor's center would do nothing to enhance the park.

Clean up some of the trails to make them user friendly. I know there are 90 trails at Beavertail but I don't think all trails need to be cleaned up. I'd like to see a small number of trails taken care of and leave the others as they

Yes .. what is happening in regard to the erosion . What research has been completed that offers solutions ?
Addressing the erosion issues—especially around the lighthouse.
Improve trails to the water
Would like to see a wider path all the way around the park similar to Sachuest Point with benches and designated access to shoreline which may help prevent some erosion.
Erosion is having a negative impact
Enforce leash laws.
Handicapped accessible restrooms open 365 days per year. More parking spots to reduce haphazard, and sometimes, unsafe parking when paved spots are full. Additional signs indicating what you are seeing and history of the peninsula, but not a visitor center, please.
Trash cans!
More walking path(s) along the main loop road/better maintenance of hiking trails. Parking is currently a challenge during peak season, but I'd rather keep the natural space and sacrifice additional parking if it were an
Get rid of the vegetation along the trails. I first started visiting Beavertail in 1970, before it was a state park, and the land was pretty much open. Given the tick problem in Jamestown, I am surprised that more is not being done to remove brush. The brush also needs to be cut back at Ft. Wetherill, because that was also brush-free in
Erosion mitigation. The amount of erosion is alarming.
wider road & a sidewalk along the road, especially where the road curves down toward the lighthouse. Dangerous if you need to walk east/west there. You have to walk in the road, with trees & shrubs sticking out
I visit to walk the loop for exercise and to enjoy the view. With no sidewalk and deteriorating edges of roadway and uneven grass, walking is challenging. Sidewalk would be wonderful improvement.
Staying open later in the season. came from arizona and only got to walk around.
Leave existing crude trails to the rocks AS IS. Do not install formal, limited paths. Existing parking is enough. The park cannot handle the number of people that arrive when the parking lots are filled. PRIORITIZE maintenance of existing facilities. A VISITOR CENTER EXISTS. Do not change facilities...just perform proper
More benches
Make the roads wider so it is safer to walk and ride a bike around the loop and add speed bumps to slow traffic down. Have crew that regularly picks up trash. Do more to make park accessible to handicapped folks. Limit the number of people in the park- don't allow parking on the grass. Plan in a way the preserves the beauty and protects the wildlife.That's why folks go there.
My son had his dog with us.
There are absolutely no trash cans anywhere to dispose of waste.
Add trash cans somewhere!
Picnic tables and benches would be wonderful!!
Limit drones. Either ban or only on specific days.
More monitoring of unruly cars Not in official parking spaces. Repainting of all parking spots and lines would help. More Huge Rocks or Boulders to Save the Grassy Areas! — Instead of Cars everywhere, destroying the
Trails could be more clearly marked.
Bathrooms less rusty and newer. Improved WWII history updates. Small snack shack. Water, chips, premade
Honestly, except for perhaps adding parking areas, I wouldn't change a thing about Beavertail.
Benches near the sunset/moonrise edges
Bathroom facilities
Hi
None
Leave it alone as much as possible. Replant the pathway that was dug up from the main road.
Improve walking trails
Fix everything that is broken

Trail markers, map that can be scanned to phone(QR) code, info about wildlife, birds (QR scan)
Shaded seating areas. Water fountain. Steps to walking/fishing areas on east side.
Trash cans at parking lots. Saw a lot of trash in the brush very close to parking lots.
i'm confused about the keep off rocks signs but everyone always is on them. that barrier is unclear but i think studying tide(s) pools are important for the public!
Trash cans!!!!! And dog poop bags. To make it easier for people to pick up after their pets and themselves. People leaving poop bags on the trails thinking someone cleans up after them.

Removal of invasive plants
Boardwalks in muddy sections of red and blue trails
i didnt know you had an aquarium!
also I enjoy some small plaques along walks. some history facts, flora, fauna would be nice addition.
also would be nice if didn't feel so dangerous getting down to water in locations on west side.

Tours
Please make a walking/biking path along Beavertail road to the park!
Love the access to the rocks for walking/hiking, sunbathing. I understand why they've been blocked off, but if we could find a safe way to maintain access it would be great.
Opening the lighthouse
Nothing that I can think of
Regular maintenance of paths to rocks, erosion control measures.
More interpretive signage - geology?
Since over the years there have been drownings due to people being swept away by big waves, I would see life preservers available nearby so if someone went in. Heartbreaking that there are none to see at all along 5ge rocks. It would be nice to see a ranger also.
If we can't go to the rocks, at least cut bushes back so we can see waves hitting the shore. Thanks
No
I enjoy that it's rustic
Signage to get here!
Please add places to throw out dog waste. There are no trash receptacles in the park
- Picnic tables
- Garbage cans
- Recycling bins
- More access to the lighthouse/tower via tours

I'm sure there are tons of good suggestions on what to add, but I really love the park as it is right now. It's a beautiful, wild place for people to explore!
A Dells truck ;p
It's probably too late, but all those boulders everywhere are a bit much. And I don't think the grassy area at Parking Lot 2 should have been blocked. So many people like to come for sunset at that lot. The grassy area doesn't get used, does it? I never see anyone on it. It could be a permeable pavement lot with a great sunset view. Another area that needs a bit of cleanup is along the Red Trail and North Blue Trail - lots of beer cans in the bushes. Visible in winter. Might need long grabbers to get some of them. Biggest problem is the eroded pathways to the rocks. People will go on the rocks no matter what, but some erosion should be restored and built up. Keep it as natural looking as possible and don't leave orange cones and barriers out there too long. They wreck people's photographs and views. Basically, please don't civilize or clutter Beavertail. It has been so open

11. Are there any other thoughts you would like to offer for this master planning effort as we think about the future of Beavertail State Park? Let us know in the comment box below and/or come to our Public Meeting on September 27th at the Jamestown Community Center starting at 5pm. Thank you for your responses!

Lovely and helpful employees at the aquarium, museum, and gift shop

Welcome center

Please don't turn it into a giant parking lot at the expense of tearing down or tearing out the green vegetation i.e.; trees, shrubs, other plants

Fill in the areas that have eroded along the side of the road...maybe some picnic tables..trash cans and water.

I thoroughly enjoy the park! Good job DEM

Why was parking excluded with the rocks

Trails were very well maintained

Picnic area and bike racks

Post the master plan ideas during the planning phase to allow more direct input. Thank you.

Keep free access

Lookout sights around the park with stationary binoculars

Volunteer host ,system to take care of maintenance, up keep ,,like army corp of engineers does down cape

Potentially future additional parking if attendance is anticipated to increase. BTW: we and other people tend to gravitate to Beavertail if other beaches are jammed or we want a quieter oceanside experience. I'm not a fan of truck vendors and I would assume they would attract more coyotes and rodents.

Keep us informed on plans so we could keep current on what's going on. Is there a website?

Bigger Aquarium,Open HECP, Fix the erosion, bike lane/walking lane on the road.

MIght consider a town wide map of all of the different parks and WWII monuments at the park to encourage more tourism on the island.

I have lived here in Jamestown for more than three decades. The erosion of the paths down to the rocks has gotten much worse in recent years. Don't know if it is climate issue or due to more foot traffic, but something needs to be done to hold that erosion. in Florida, I see steps leading down to the beach that are not anchored at the lower end. Therefore they are much able to cope with storms, erosion, etc. Perhaps some solution like that

I live in a nearby town, and Neavertail is one of my favorite places to visit. Even in the summer, I can find a peaceful place to sit and enjoy the spectacular scenery. Please don't change a thing!

LESS SIGNS MORE PARKING

Try to plan future serious brush removal/cutting around important migration periods for birds and butterflies. A lot of times the brush/wildflowers are cut back with terrible timing for the migratory species that depend on this

Thanks for listening. The park is spectacular!

I recommend offering a shuttle service to avoid the congestion of cars in the park itself. This would involve an off-site lot where people can park. It can also be connected to a trail for people to walk on and access the park.

Please leave it open to the public! Keep the native foliage, plants in and grasses for the wildlife intact. Don't take down the ecosystem.

Please continue to provide opportunities to hunt & fish within the park.

We're from the Skyscrapers Amateur Astronomical Society of RI and think that Beavertail State Park would be an ideal setting to have astronomy nights, perhaps once or twice a year, in a similar vain to the "Great Outdoors Pursuit" events that done several years back.

The signs that read "keep off the rocks" are completely ignored. Although the last time I parked at 3 the very best bird watching has been at parking lot 1. Year round bathrooms would be great.

Two years ago my son and I went to Maine on Labor Day weekend. We wanted to get a look at Portland Head light. It was mobbed. Cars, bus tours, you had to PAY TO PARK, we looked at each other and said, Beavertail is better. Part of the charm of Beavertail is that is ISN'T that scene at Portland Head. Be careful you don't develop it into that. A solar-powered rest room facility would be nice. And maybe certain nights during the year, such as during a meteor shower, the park could officially be open at night for star gazing. Other than that, I think a gate
Keep the Natural Beauty of the Park and no over development
Just please add trash cans
The park is perfect as it is and has been that way for the 49 years I have been visiting
This is my favorite outdoor place is Rhode Island. Please do every thing possible to keep it accessible and a welcome place for all Rhode Islanders.
This is one of the real gems of the state, and hopefully its ruggedness and undeveloped status will continue
There should be proactive habitat management plans that favor native plants and wildlife.
Preserve the lighthouse and accompanied buildings. Restore and preserve the entire history of the area.
Steps down to fishing areas, fishing piers.
The aquarium is underwhelming, dark, dingy, and meh. There are other places in the state for this activity and not the real purpose of the visit to beavertail. I'd imagine that structure could be better used for something else, like a small space for programs, lectures, camps, maybe more focus on maritime history and importance of
Are the large machines parked near by there to fix the erosion slots along the edges of the road?
stabilize the road around the light house that is experiencing erosion
No
This is a beautiful part of our state, just continued upkeep and maintenance is needed.
Keep it simple, preserve the natural beauty.
Remove the rocks/boulders that have decreased the amount of parking areas (near lot 1).
Please give full consideration to handicapped access. There are very few places between westerly and Beavertail where people can get a great view from their cars. This is very important for people with mobility issues who are using their car as a large motorized wheelchair.
Please keep it the way it is.
The park is perfect the way it is. I can't think of anything that needs changing or any reason why it would need
Conservation of habitat for migratory birds. Beavertail is a prime hotspot for birds during migration.
This is a very important location for migrating birds in RI, some of which are rare in our state. Please keep the birds in mind with whatever you do.
I feel that besides routine maintenance, the trails should be left as is. Aside from the necessary waterline installation, the powerline trail should be left alone. Beavertail is a very important migration point and the powerline trail is an important resting/feeding area.
I'm thankful you have the outhouses there - please be sure to keep them. While I answered parking lot 1 for my last visit, I do use all of the parking areas, it depends on how much walking I want to do as I bird.
Free access has allowed so many to enjoy Beavertail over the years. Protect the land. Take whatever measures are needed to prolong any effects of erosion. Beavertail has always been so quiet, peaceful, and perfect. Please don't make any major changes that will effect that!
Public telescopes
Keep it natural, maybe focus on Ft Wetherill to add improvements (like a playground or public aquatic learning
Do not develop it into a campus
Keep it all free and open to the public. Do not make it private
Do not pour asphalt anywhere in the park. Do not disturb the natural habitat.
Keep the park as natural as possible. It is a fallout spot for birds in migration who are seeking food and shelter, free from predators and disturbance. Prevent dogs from being there as owners do not follow leash laws.
Keep it simple and don't take away from the beauty of this treasure

Please maintian the natural quality of the park, with no concessions or other commercial additions.
Thank you for the opportunity to comment.
I hope that any development/building projects are as sustainable and have minimal disturbance/impact on the
It would be great if the lighthouse was accessible more often. Climbing up there is great fun for young and old.
Maintain the park as a place to study and enjoy wildlife and ocean life.
My only thought is in and around the lighthouse having increased accessibility for handicap such as more efficient ramps and entryways. I think that can be done without taking away the historical prevalence of the
I don't believe revitalizing is needed. Beavertail is a little wild and self stewarded, that's what makes it wonderful. I think accessibility for disabled people could be addressed. And I believe since all coastal land in RI is so white and wealthy, there are people who live in RI that have never been to the beach. I would like to include all of those people to the large variety of coastal ecosystems RI has to offer. Beavertail needs to continue to be a
Keep it as natural as possible.
Road maintenance although I know this is difficult d/t weather. Not sure what to suggest about trash left by fishermen and those picnicking. Rhode Islanders are trashy
Leave beautiful beavertail alone!
Is there an actual master plan? Im lost....
Keep the open spaces and preserve natural beauty of the park
Set up little posts with QR codes that you can scan and tell you information about the area
Have more meetings not during the work day please
Love the LACK of signs & benches- please keep that way!!!more natural the better.
See above. For more information feel free to contact me. Dennis Zambrotta, President, Newport County Saltwater Fishing Club 401-497-8359
No, I think that is everything of significance
It looks like a road (and possible parking lot) are being added. Hope as much green space - and the character of the site - will be preserved. Compromising the beauty and historic ambience of this special place to create more parking/allow more people to be there at any one time would be a huge mistake.
Make the fake Fort Burnside museum into a real museum and renovate Battery Whiting as promised the NPS.
I see the park as essentially a beach without sand. Views and passive accessible open space should be preserved. Some benches in areas with nice views would be a good idea.
I would hate to see it over run. The beauty about it is that, as long as there is not a pandemic, it's never so busy that I wish I wasn't here. I can climb down into the coves and be alone. That's the majesty of this place.
We are always impressed with the aquarium and how knowledgeable the staff is there, and how welcoming and friendly they are to our whole family..
I would like to see it taken better care of overall. Perhaps having an attendant and charging a nominal fee like at Fort Getty would help offset costs.
Love love love it here
A new waterline (I think) was put in down the length of the power lines. This area is a very important and productive birding location for RI birders-Please restore the trail and maintain it for this purpose. Also, some of the open space being mowed for lawn should be converted to meadow for birds and pollinators. No need for so much mowing. Meadows are better for the environment and reduce resource needs ($$$). Thanks!
Ideally there would be an all access trail with views and benches accessable from the handicapped parking.
Simply beautiful.
Repair and prevent any further erosion of road and grassy areas.
Moving here, just looks like the most beautiful place on Earth.
Keep it the way it is. Don't let campers take all the space, but be open to pick nickers, etc.
Never let it slip into private hands!
Education and dealing with erosion

WOW! I should've brought a heavier coat but this is easily my favorite state park in RI! Thank you all for your great work on the park!!
Please do not develop it too much...
Better aquarium.
Offer access to planning documents on line.
Thank you for your presentation in Jamestown on Sept 27th.
No trash cans and no picnic tables !! It's the best way to ward off litter
We like that no cars are allowed around the lighthouse.
Would love to see a bike path to the park
Picnic tables would be nice
Don't make any changes.
We love Beavertail, but more parking, more marked trails/walking paths, & better bathrooms would make our
DO NOT add food vendors to cause more litter. DO NOT add a visitor center to ruin existing natural, open space.
None
Love this gorgeous park! So grateful to live in Jamestown and to have this incredible place to walk!
Erosion needs to be countered
Beavertail State Park and all it's offerings = Historical Lighthouse Museum, Aquarium and Gift Shop and Outer
Buildings are perfect the way they are!
I would add additional parking areas if at all possible, otherwise I can't think of anything that should be changed.
Beavertail is the #1 spot we bring visitors to see when they come to RI. Definitely a huge reason we moved here
Pulic benches around the loop
The best part about the beaver tail is its unspoiled nature. Encourage people to keep it that way.
Keep lighthouse accessible, more regular events like sound baths
A replica of the guns that were here during World War Two
clean up routines! i'd loveto join something or coordinate. might just start alone. hate to see the ocean litter but happy it's not from fisherman
I am troubled by people parking on the grass
Would be nice to have educational Signage about what waterfowl or other wildlife you might spot from the
Litter in the summer is bad. Need to clean/patrol more. Need to fine folks that are littering.
No
It is a gem and is worth the investment to protect and enhance!
See above. Thanks for asking.
Food trucks
It's awesome as is! Don't change it too much.
Most wonderful spotPlease don't overdevelop this gem
Please keep cars permanently away from the light house loop
N/A
Beavertail rules come here for a zen walk
I am glad there are no waste cans or picnic tables as there would be a constant mess. I also like how wild the north section is, Red Trail area. It looks like someone is creating small clearings. I think this is nice but don't go overboard. I suggest creating a nice sign with the typical winter ducks and other birds that people might see. (Apologies if I missed it.) Please keep the lighthouse museum open year round. It is a magnificent museum.

BETA
IMPROVING COMMUNITIES TOGETHER

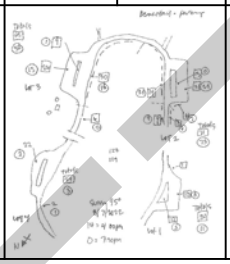
03 Beavertail State Park - Visitation Data 2019-2023

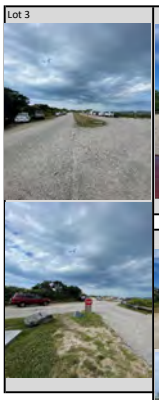
	2019			2020			2021			2022			2023		
	RIDEM Car Count	Avg. Daylight Hours	Avg. Cars Per Daylight Hrs	RIDEM Car Count	Avg. Daylight Hours	Avg. Cars Per Daylight Hrs	RIDEM Car Count	Avg. Daylight Hours	Avg. Cars Per Daylight Hrs	RIDEM Car Count	Avg. Daylight Hours	Avg. Cars Per Daylight Hrs	RIDEM Car Count	Avg. Daylight Hours	Avg. Cars Per Daylight Hrs
January	7,752	297.6	26	7,531	297.6	25	26,127	297.6	88	16,147	297.6	54	6,598	297.6	22
February	7,638	296.8	26	8,146	296.8	27	19,364	296.8	65	14,932	296.8	50	7,671	296.8	26
March	7,693	372	21	15,107	372	41	14,340	372	39	17,970	372	48	9,080	372	24
April	10,930	402	27	6,162	402	15	14,018	402	35	12,005	402	30	11,321	402	28
May	11,218	452.6	25	21,641	452.6	48	15,423	452.6	34	14,680	452.6	32	18,276	452.6	40
June	18,139	453	40	29,832	453	66	14,682	453	32	20,979	453	46	16,101	453	36
July	22,316	458.8	49	36,136	458.8	79	16,382	458.8	36	29,780	458.8	65	27,673	458.8	60
August	27,065	427.8	63	36,599	427.8	86	17,189	427.8	40	26,942	427.8	63	26,291	427.8	61
September	16,695	372	45	28,830	372	78	16,374	372	44	18,691	372	50		372	0
October	13,149	341	39	35,003	341	103	16,866	341	49	15,041	341	44		341	0
November	6,019	294	20	32,487	294	111	8,796	294	30	10,264	294	35		294	0
December	7,897	285.2	28	27,237	285.2	96	16,378	285.2	57	8,357	285.2	29		285.2	0
Total	156,511	4453	34	284,711	4453	64	195,939	4453	46	205,788	4453	46	123,011	4453	25

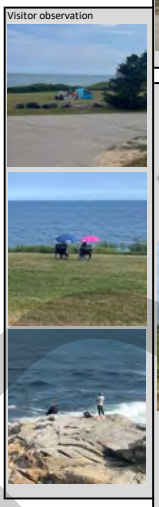
Beavertail State Park Master Plan

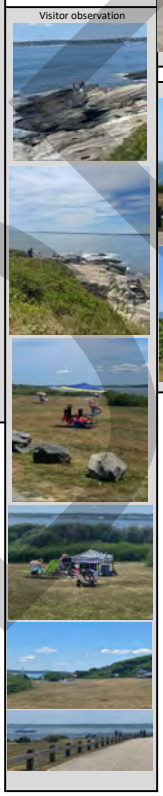
Parking counts

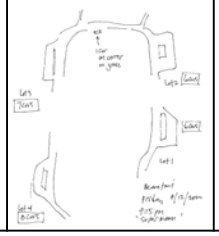
Most Overflow Parking

Day	Friday July 8 4:30	Friday July 15 12:30	Tuesday 19-Jul 12:30	Friday 22-Jul 2:00 PM	Tuesday 2-Aug 12:30 PM	Friday 5-Aug 1:00 PM	Sunday 7-Aug 4:00 PM	Sunday 7-Aug 7:30 PM	Tuesday 9-Aug 12:30 PM
Lot 1	12	14	16	18	13	10	18	8	24
Lot 1 grass	-	-	-	1	3	-	13	4	1
Lot 2	20	23	18	26	23	22	21	29	23
Lot 2 grass	-	3	1	5	4	2	50	44	1
Lot 3	12	18	14	11	16	19	26	15	18
Lot 3 grass	9	16	7	12	8	9	45	17	6
Lot 4	10	7	7	8	16	8	22	2	9
Lot 4 grass	-	-	-	-	-	-	2	1	-
Additional Notes	Aquarium staff acknowledged accessibility issues when entering the facility. 100-150 visitors a day in the aquarium.	Observed 2 individuals slip and fall on rocks - Life rings would be a good idea to incorporate on site for situations like this. Overheard a party say 'where are we' - confused with what part of the park they were at. Observed people have trouble making it down to the water. Most individuals sitting on the lawn areas brought umbrellas/ shade tents. Site lacks shade along water.	People traveling in the wrong direction on the driveway when exiting lot 2 (no 'one way' sign when exiting lot). More presence of individuals bringing umbrellas/ tents for shade. Bikes on beavertail raod	Camper parked in lot 3. More umbrellas/ tents/ shade. Bikes on beavertail raod	Camper parked in lot 3	People in parking lot were wearing bathing suits - possibly trying to access the small beach areas on west side. Bikes on beavertail raod			



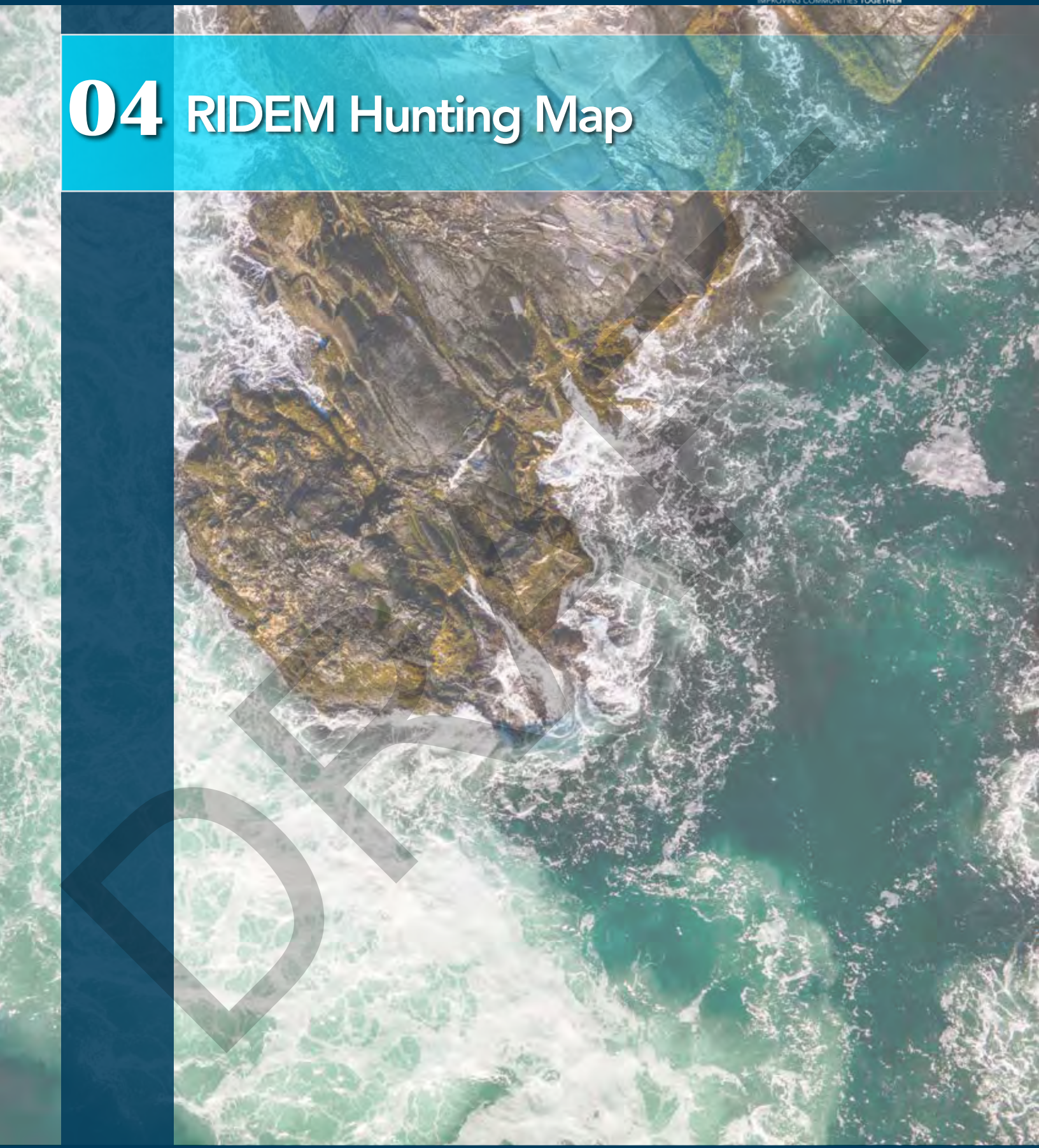


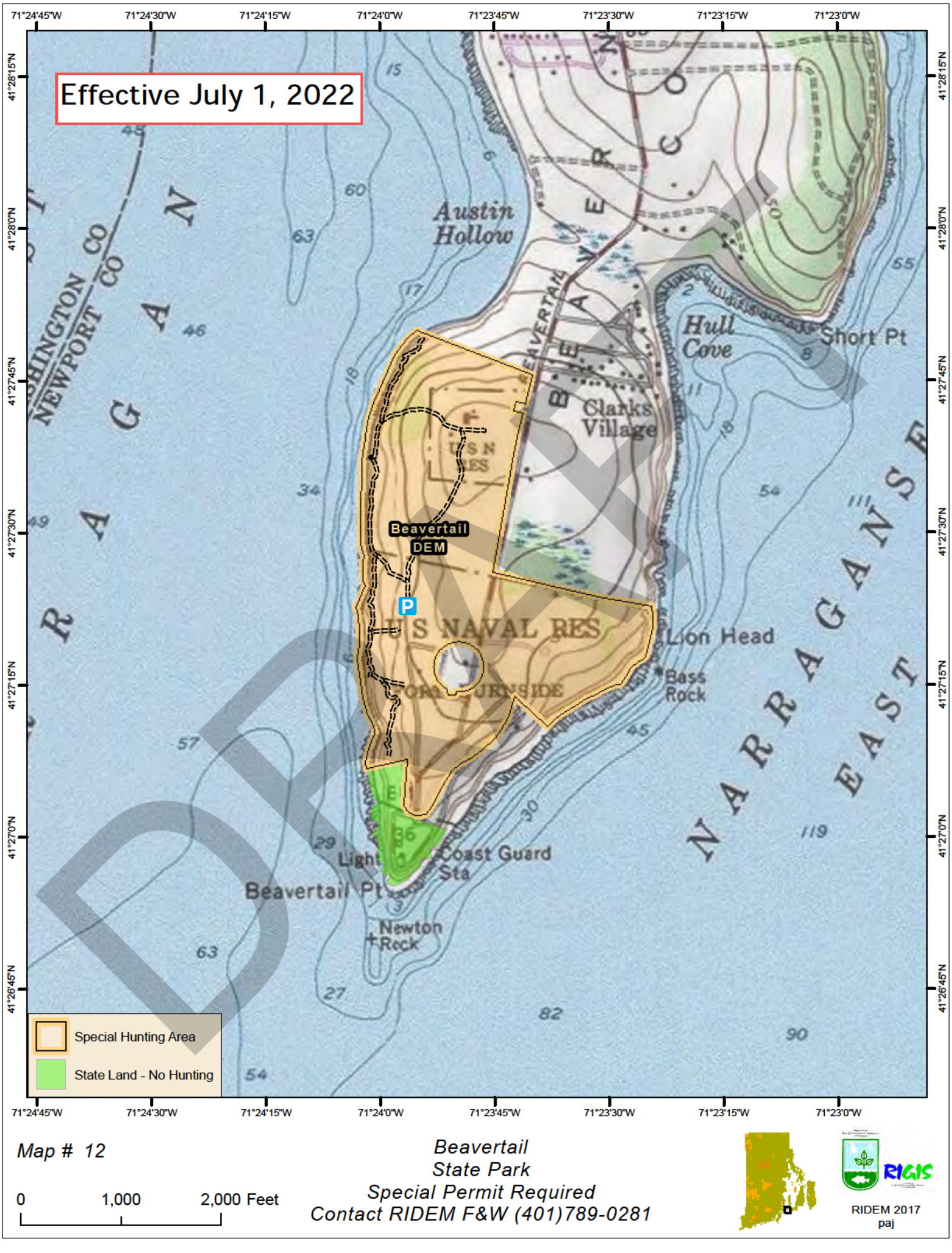


							Labor day					
Day	Friday 12-Aug 4:30 PM	Friday 12-Aug 9:15 pm (supermoon)	Saturday 13-Aug 10:30 AM	Tuesday 16-Aug 4:30 PM	Friday 26-Aug 4:30pm	Thursday 1-Sep 8pm	Monday Sept 5 - labor day 6pm	Tuesday 6-Sep 6:30pm	Tuesday 18-Oct 7:15 AM	Thursday 27-Oct 2:45 PM	Friday 4-Nov 2:00 PM	Friday 13-Feb 11:30 PM
Lot 1	23	6	8	9	7	3	1	-	1	7	6	8
Lot 1 grass	2	-	-	-	1	-	-	-	-	1	-	-
Lot 2	27	6	23	12	19	8	5	2	-	14	18	9
Lot 2 grass	13	-	1	8	6	6	1	-	-	3	2	-
Lot 3	15	7	12	14	5	8	2	2	-	12	14	7
Lot 3 grass	14	1	14	4	13	1	-	1	-	2	3	-
Lot 4	8	8	9	5	3	2	-	2	-	8	-	2
Lot 4 grass	-	-	-	-	-	-	-	-	-	-	-	-
Additional Notes	campers in lot 3 on grass			Jogging along entrance drive loop. Bikes on beavertail road	Bicycle on entrance drive. camper at lot 1. kites near lot 3. Gathering at point with alcohol - group of maybe 20 individuals		person on bicycle			Unseasonably warm	Unseasonably warm	Unseasonably warm (64 degrees)

BETA
IMPROVING COMMUNITIES TOGETHER

04 RIDEM Hunting Map





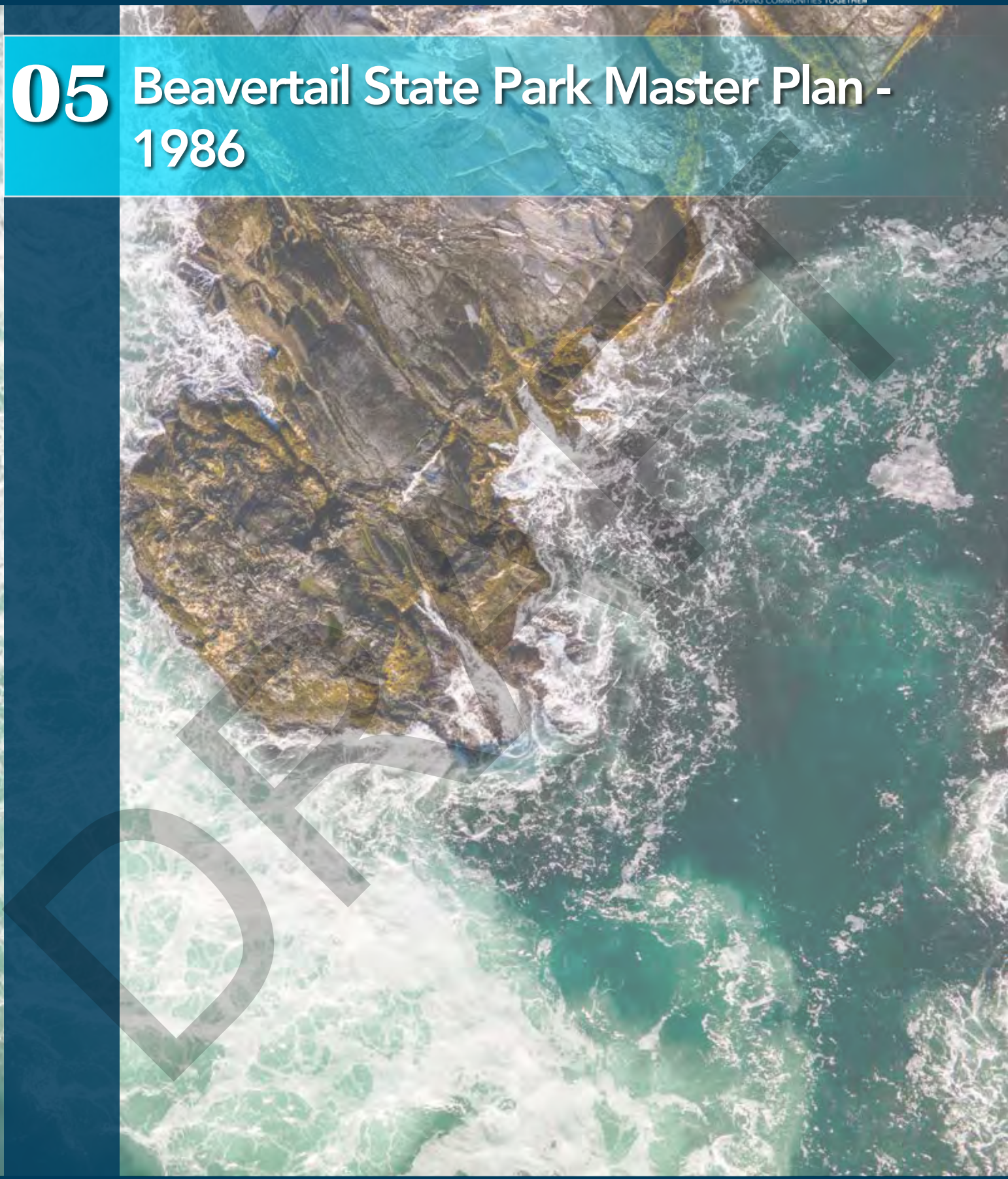
Map # 12

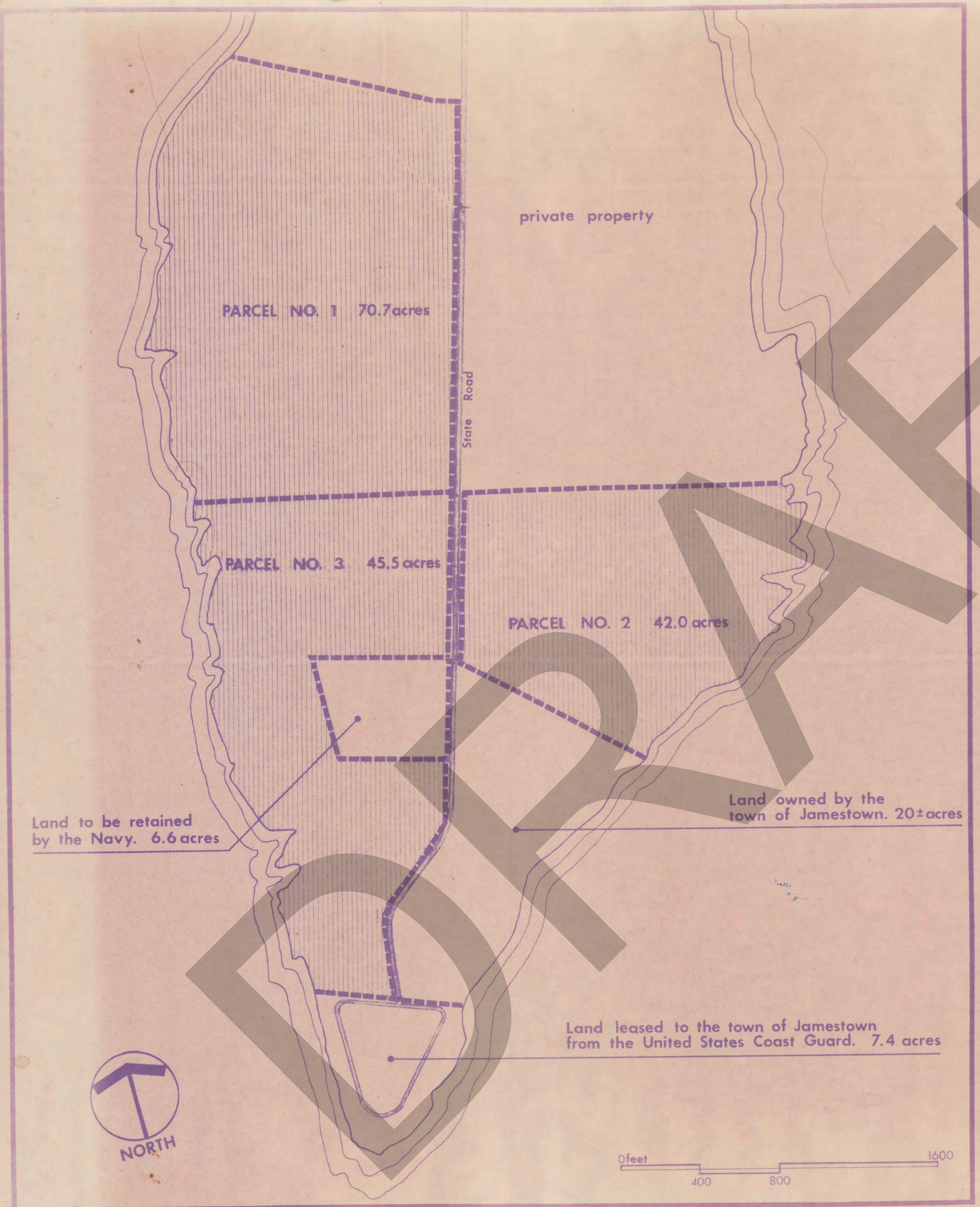
0 1,000 2,000 Feet

Beavertail
State Park
Special Permit Required
Contact RIDEM F&W (401)789-0281

RIDEM 2017
paj

05 Beavertail State Park Master Plan - 1986





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4 VEGETATION
5 HYDROLOGY
6 GEOLOGY
7 EXISTING ROADS
8 EXISTING BUILDINGS
9 SPECIAL FEATURES
10 SITE ANALYSIS
11 SITE DEVELOPMENT
12 PROPOSAL

D-E-M

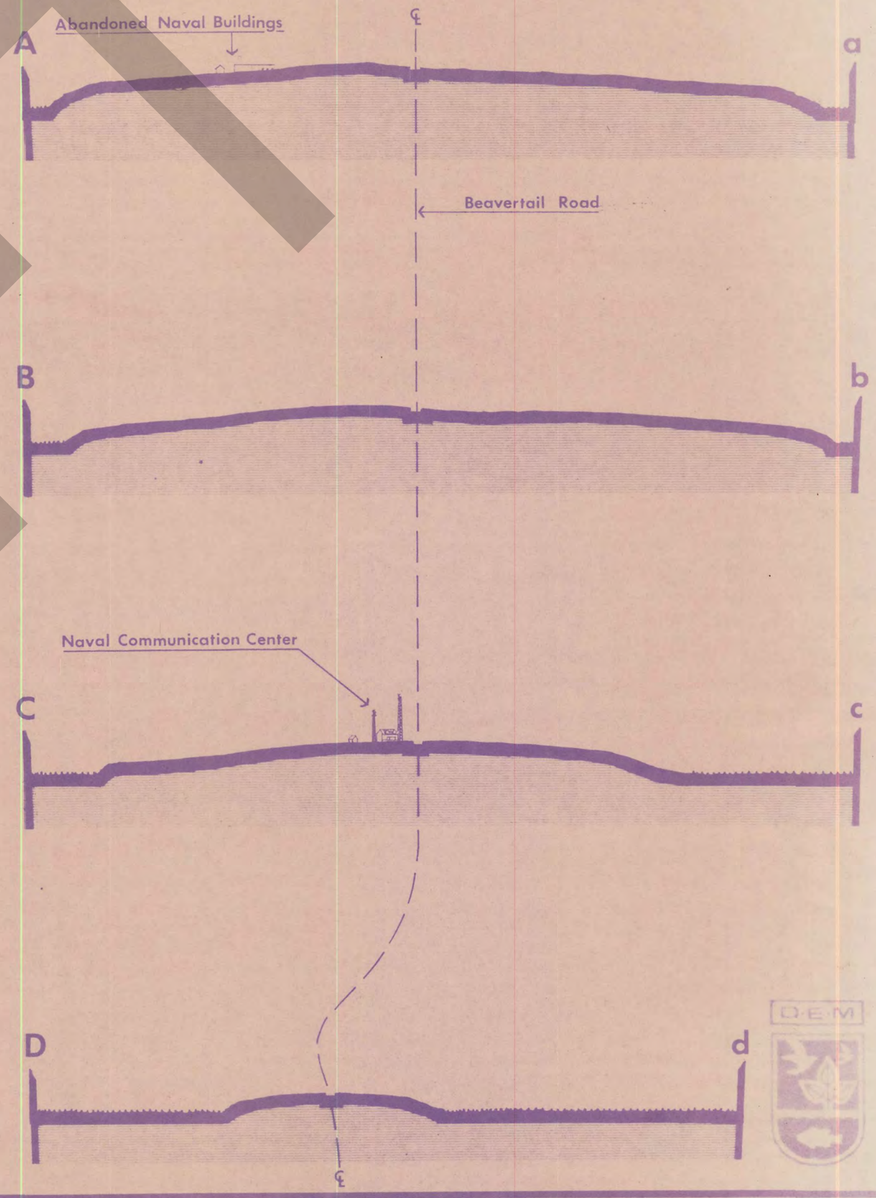
BEAVERTAIL

BT 4147 DR 33 SEC 2

TOPOGRAPHY

SECTIONS

HORIZONTAL SCALE 1 inch = 400 feet
VERTICAL SCALE 1 inch = 200 feet



INVENTORY

SHEET NO. 1

BEAVERTAIL

004147-15-011-002-1

BT 4147 DR 33 SEC 2

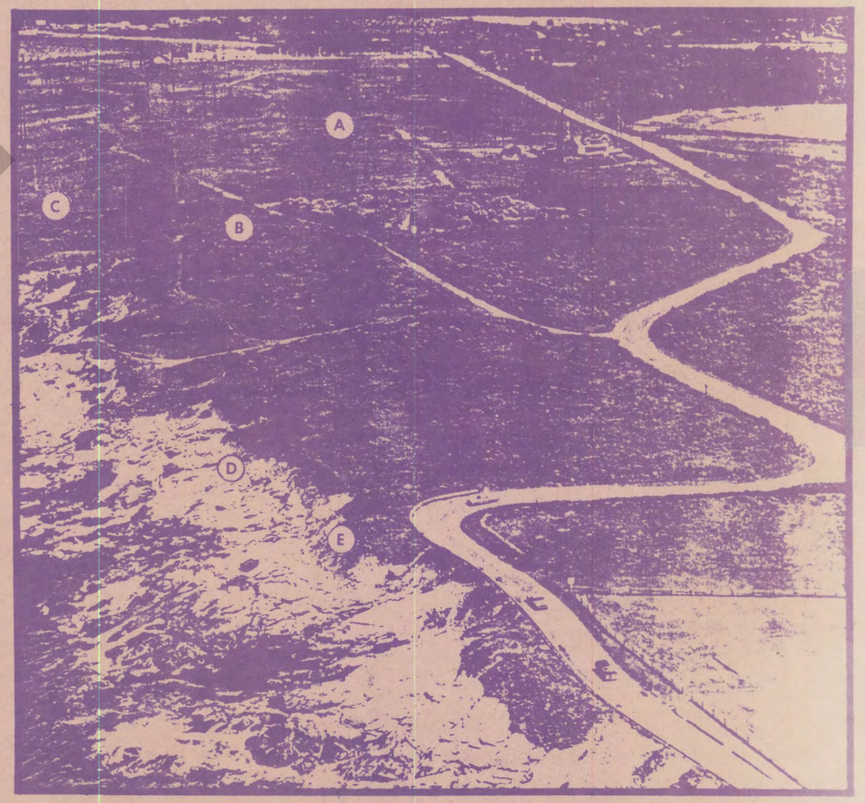
SLOPE

KEY

The slope of the land is expressed in terms of percent. For example, a slope of 3 percent means a difference in elevation of three feet for each 100 feet of horizontal distance. In the map symbol, slope class is indicated by a letter as follows :

- A — 0-3 percent slope
- B — 3-8 percent slope
- C — 8-15 percent slope
- D — 15-25 percent slope
- E — 25 and over percent slope

The photo below indicates how most of Beavertail's landscape gradually slopes from the main road towards the shore. View is from the west shore looking in a southeasterly direction.



INVENTORY

SHEET NO. 2

BEAVERTAIL

SOILS
KEY

NEWPORT SERIES

The Newport series consists of deep, well-drained, medium textured, soils of the uplands. These nearly level to moderately steep soils are on the top and sides of elongate ridges composed of till derived principally from acid, gray and green slate and shale. These ridges have a general north-south orientation. The depth to a water table is more than 4 feet. A slowly permeable fragipan occurs at a depth of 20 to 30 inches. This fragipan restricts downward movement of water and will cause a temporary perched water in the soil profile.

Mapping Units:

- 10A Newport silt loam, 0 to 3 percent slopes
- 10B Newport silt loam, 3 to 8 percent slopes
- 10C Newport silt loam, 8 to 15 percent slopes

STISSING SERIES

The Stissing series consists of deep, poorly drained, nearly level soils between elongate glaciated ridges. These soils have a fragipan at a depth of 15 to 25 inches. They are derived from acid gray and green slates and shale. Most areas of Stissing soils are long, relatively narrow, and at the foot of slopes or along broad waterways. Stissing soils have a high seasonal water table and are poorly suited for many crops. Permeability is very slow in the substratum and the available water capacity is high.

Mapping Units:

- 48 Stissing silt loam

POQUONOCK SERIES

These soils are deep, well-drained to excessively drained soils of the uplands. They formed in a sandy mantle overlying glacial till. Typically these soils have loamy sand to sand surface horizons. The substratum from 28 to 60 inches is a fragipan that is a gravelly loam to silt loam. Depth to a water table is more than 4 feet; however, a temporary perched water table may occur above the fragipan during and after heavy rains. Depth to bedrock is greater than 4 feet. Due to very slow permeability in the substratum, this soil has a severe limitation to septic tank absorption fields.

Mapping Units:

- 29A Poquonock loamy sand, 0 to 3 percent slopes
- 29B Poquonock loamy sand, 3 to 8 percent slopes

PITTSTOWN SERIES

The Pittstown series consists of deep, moderately well-drained soils on uplands. These soils have a fragipan at a depth of 20 to 30 inches. They are nearly level to gently sloping soils on the lower slopes of glaciated ridges composed of till derived principally from acid, gray and green slate and shale. Permeability is moderate in the subsoil but slow in the very firm material below. Available water capacity is moderate. A seasonal high water table and slow permeability are the major limiting factors in uses of this soil.

Mapping Units:

- 5A Pittstown silt loam, 0 to 3 percent slopes

ROCK LAND

This unit contains rocky soils with more than 50 percent of exposed rock outcrops. The soils in this unit would be less than 20 inches deep. This unit has a very severe limitation to most uses.

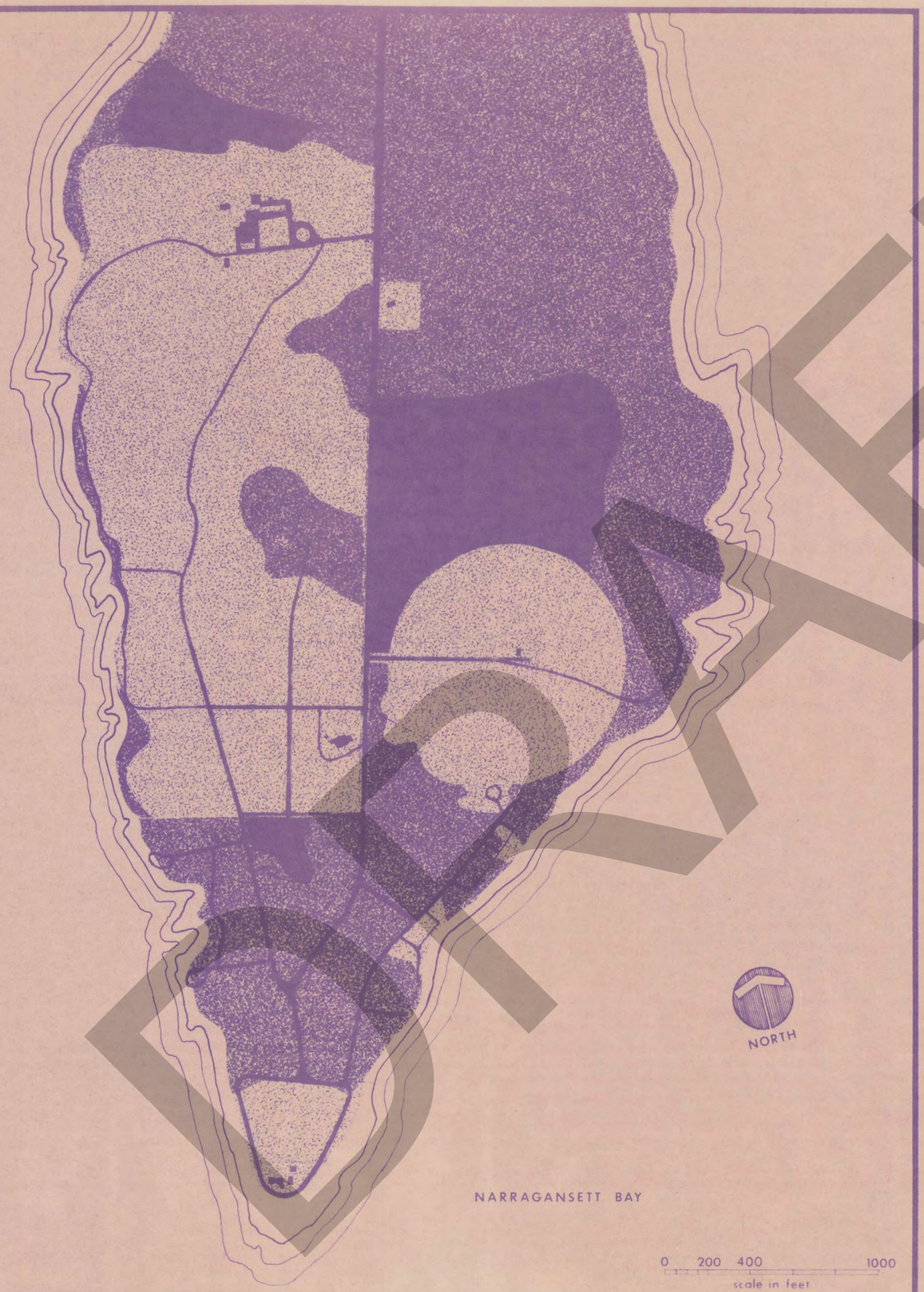
Mapping Units:

- 36R Rock Land

O·E·M

INVENTORY SHEET NO. 3

BEAVERTAIL



004147-15-011-005-1

VEGETATION

CLASS I
High Vegetation 8 ft & above

mapping symbol

CLASS II
Low Vegetation 2ft to 8ft

mapping symbol

CLASS III
Field Vegetation

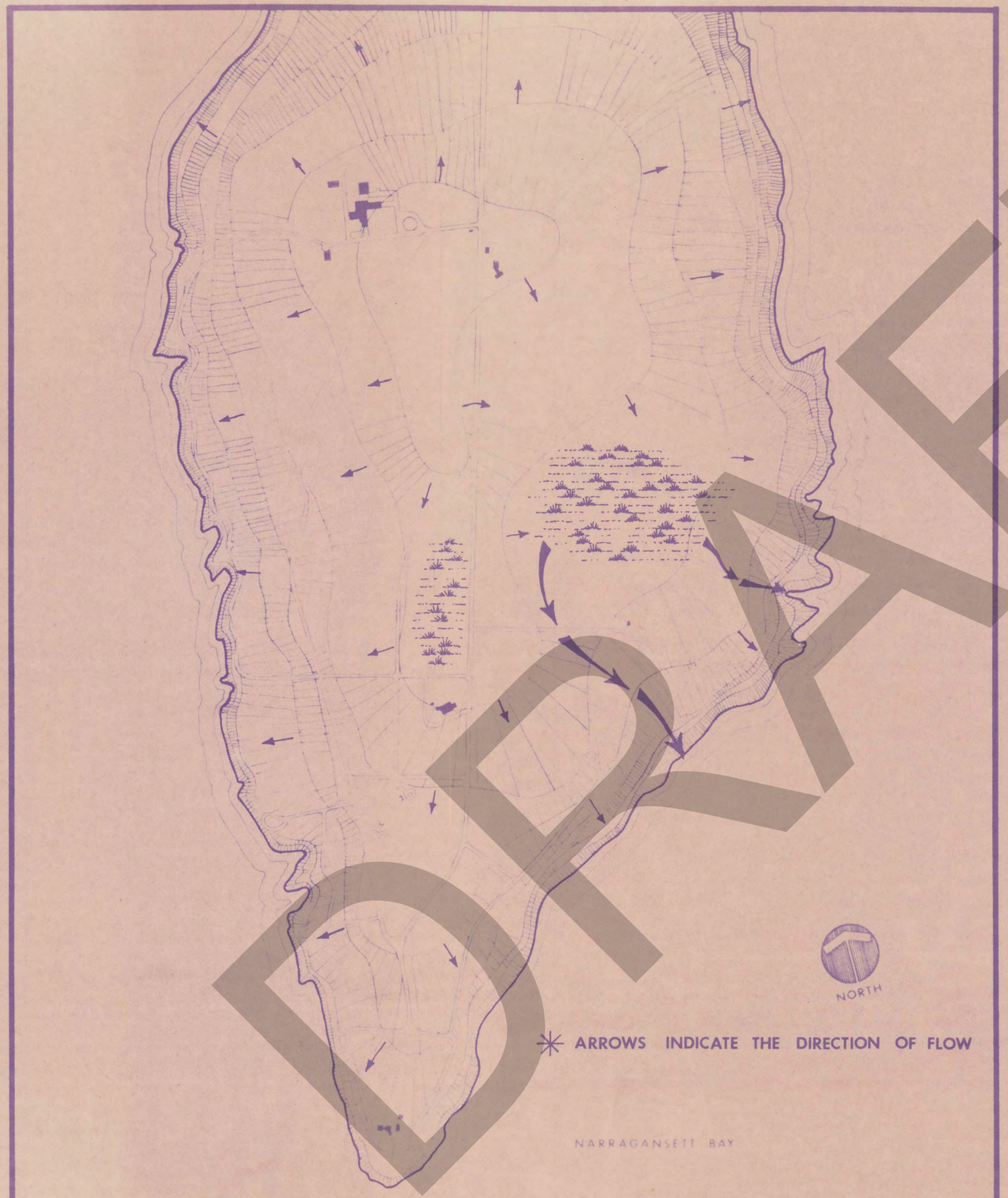
mapping symbol

D·E·M

INVENTORY SHEET NO. 4

BEAVERTAIL

BT 4147 DR 33 SEC 2



✳ ARROWS INDICATE THE DIRECTION OF FLOW

HYDROLOGY

Except for two small wetlands, the entire Beavertail penninsula drains directly into the ocean. (See adjacent map)

The larger of the two, located at the southeast corner of the site, eventually does drain to the ocean by two underground streams. These streams are evident by the reed grasses growing along the water-logged soil.*

The smaller wetland is situated just west of Beavertail Road. It is fairly insignificant except during spring when the ground water table is at its highest level.

Reed grass is a good indication of fairly wet areas.

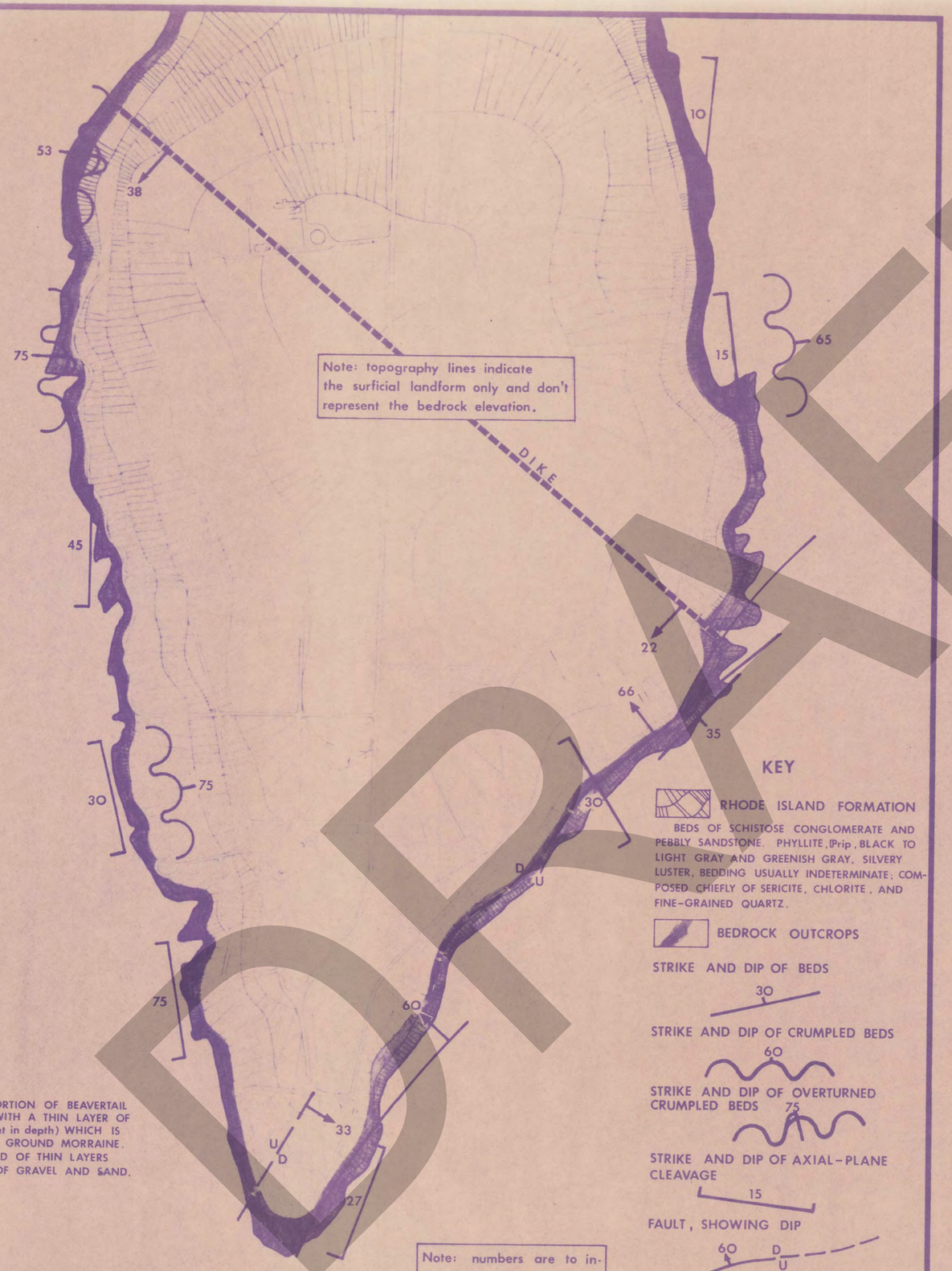
The culvert above allows for drainage of the east side swamp.

* The soil, as a glacial deposit, is classified as till. It consists of boulders, gravel, sand, silt and clay; unconsolidated, poorly sorted and unstratified. It has an average thickness of 20 feet and forms a thin, discontinuous mantle over the bedrock. Generally this soil is a poor waterbearing material, yielding not more than 2 to 3 gpm to a large diameter dug well.

INVENTORY

BEAVERTAIL

SHEET NO. 5



Note: topography lines indicate the surficial landform only and don't represent the bedrock elevation.

A MAJOR PORTION OF BEAVERTAIL IS COVERED WITH A THIN LAYER OF TILL (15 - 25 feet in depth) WHICH IS CLASSIFIED AS GROUND MORRAINE. IT'S COMPRISED OF THIN LAYERS AND LENSES OF GRAVEL AND SAND.

Note: numbers are to indicate the angle of dip.

KEY

RHODE ISLAND FORMATION

BEDS OF SCHISTOSE CONGLOMERATE AND PEBBLY SANDSTONE. PHYLLITE, Prip, BLACK TO LIGHT GRAY AND GREENISH GRAY, SILVERY LUSTER, BEDDING USUALLY INDETERMINATE; COMPOSED CHIEFLY OF SERICITE, CHLORITE, AND FINE-GRAINED QUARTZ.

BEDROCK OUTCROPS

STRIKE AND DIP OF BEDS

30

STRIKE AND DIP OF CRUMPLED BEDS

60

STRIKE AND DIP OF OVERTURNED CRUMPLED BEDS 75

STRIKE AND DIP OF AXIAL-PLANE CLEAVAGE

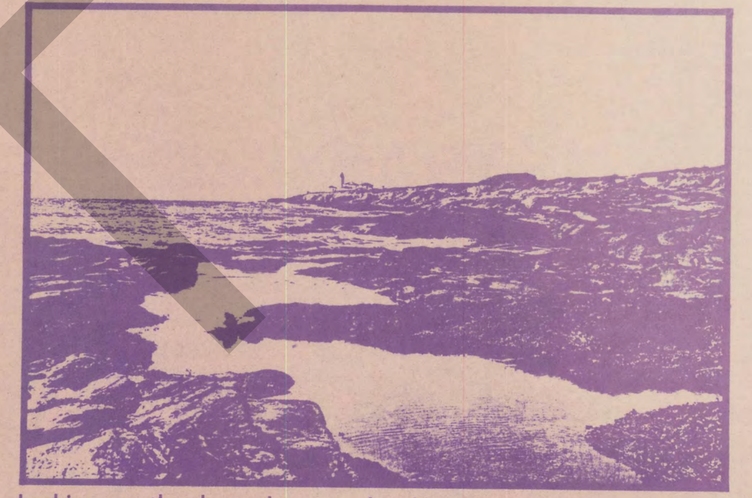
15

FAULT, SHOWING DIP

60 D U

Dashed where approximately located; U, upthrown side; D, downthrown side.

GEOLOGY



Looking south along the east shoreline

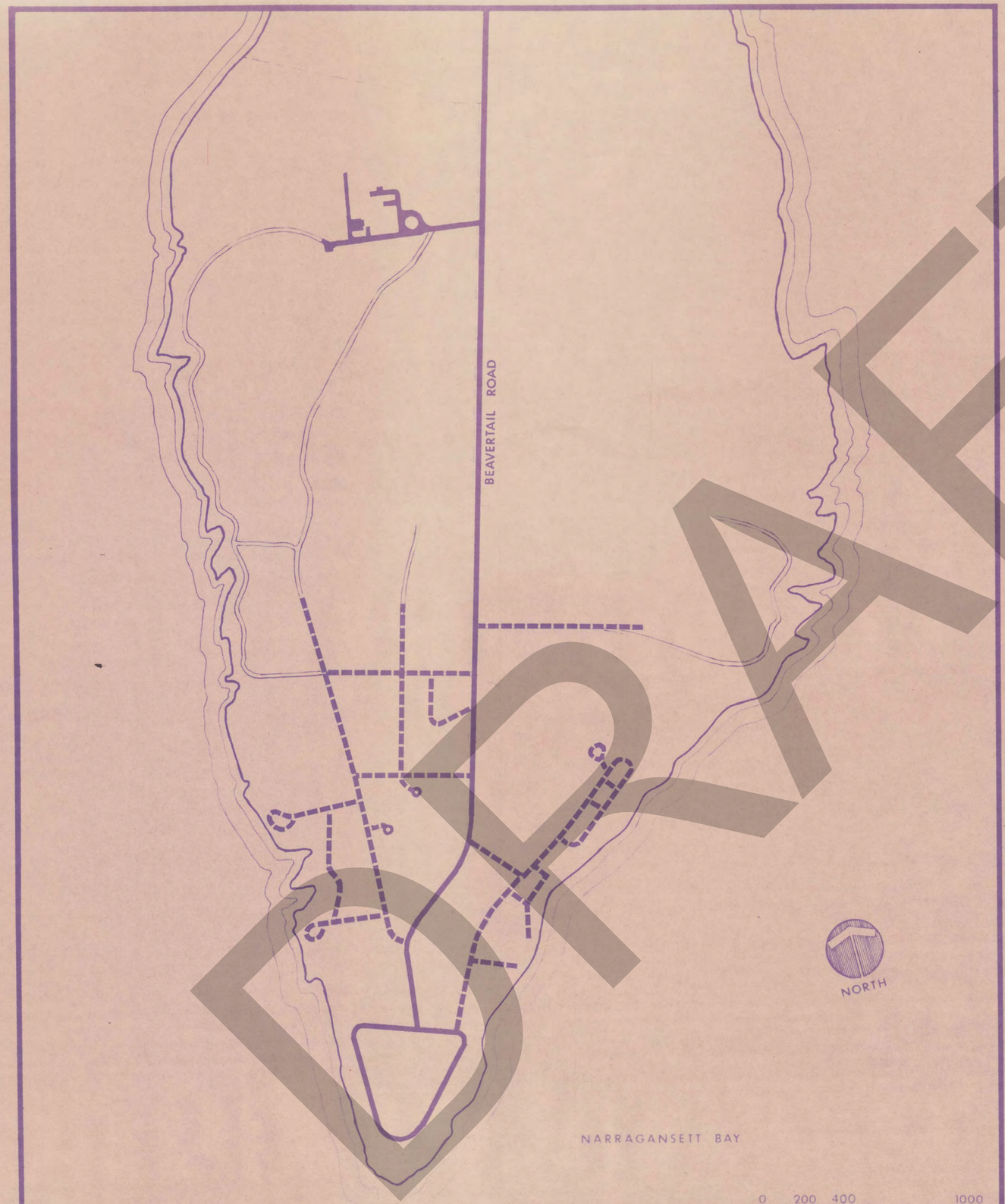
Looking north along the west shoreline

Bedrock formations in the Beavertail area consist of schistose conglomerate and pebbly sandstone. The ages of these rocks are determined to be in the early Pennsylvannia age and are classified as the Rhode Island formation.

The most unique feature of the bedrock along Beavertail's shoreline is the remarkable difference between horizontal bedding of the east shore and the very angled dips of the bedrock on the west shore. Marine erosion has caused several sharp re-entrants into the west shore thus creating small coves where both rocky and sandy beaches can be found.

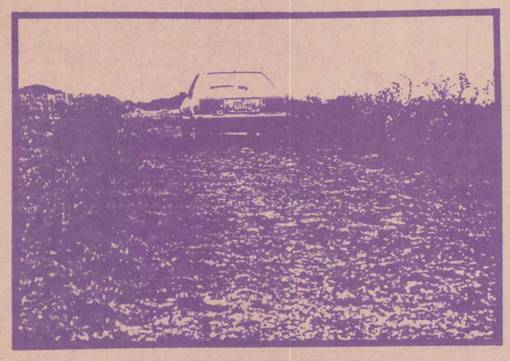
INVENTORY SHEET NO. 6

BEAVERTAIL



EXISTING ROADS

CLASS I
Paved Roadbed
mapping symbol



CLASS II
Dirt or Gravel Roadway
mapping symbol

CLASS III
Field Access Lane
mapping symbol

D·E·M

INVENTORY

SHEET NO. 7

BEAVERTAIL

004147-15-011-008-1

BT 4147 DR 33 SEC 2

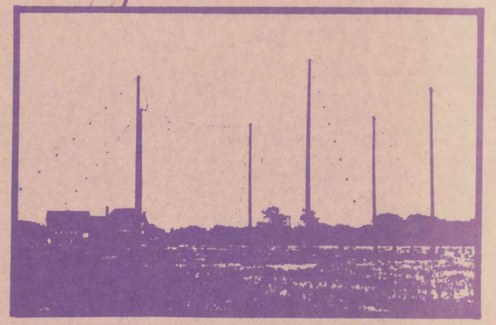
A WATER RESERVOIR BUILDING

B TRANSMITTER OUT BUILDING

C TRANSMITTER BUILDING

D SENTRY HOUSE

E MAINTENANCE SHOP



A DOMINANT FEATURE IS THE CLUSTER OF LARGE RADAR TOWERS WHICH DOT THE WESTERN SIDE OF BEAVERTAIL. THEY WILL EVENTUALLY BE DISMANTLED AND SALVAGED BY THE NAVY.

Ha BUNKER

F ANTENNA CONTROL BUILDING

G COMMUNICATION CENTER

Hb BUNKER

Hc BUNKER

Hd BUNKER

NORTH

I OUT BUILDING

J LIGHTHOUSE

NARRAGANSETT BAY

0 200 400 1000

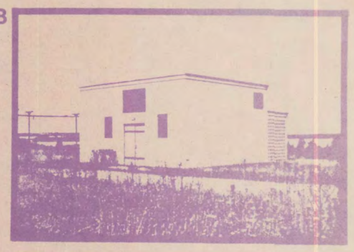
scale in feet

004147-15-011-009-1

EXISTING BUILDINGS

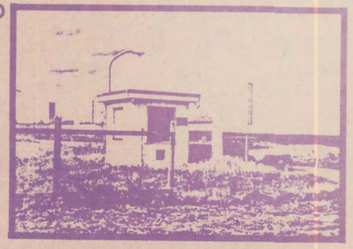
A

B



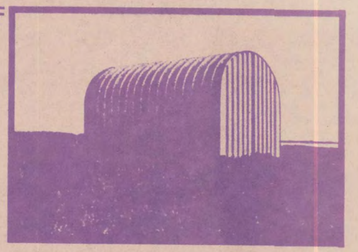
C

D

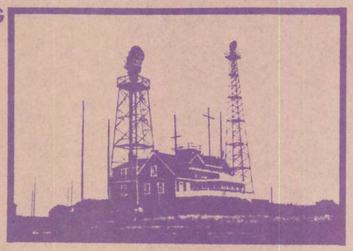


E

F

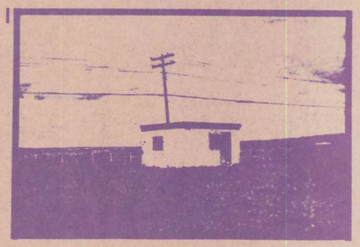


G



Ha
Hb
Hc
Hd

I



J

INVENTORY

SHEET NO. 8

BEAVERTAIL

BT 4147 DR 33 SEC 2

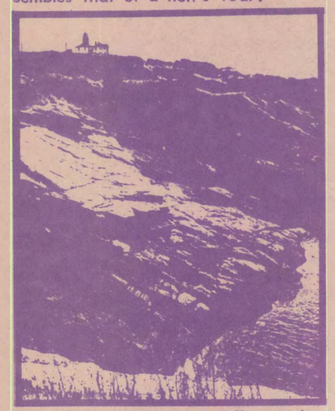
The vegetation, exposed to both the wind and sea, creates a landscape that's unique to Rhode Island.

Looking from Lion's Head in a south-easterly direction towards Ft. Wetherill.

SPECIAL FEATURES

LION'S HEAD The name was given this rock formation because the sound of the water surging into the crevice resembles that of a lion's roar.

LION'S HEAD GORGE The 40 foot wide inlet offers a spectacular view of the east passage.



THE WEST SHORE TRAIL offers a dramatic experience of rocks and water.

THE BUNKER OVERLOOK enables one to view the entire Beavertail area.

THE BEAVERTAIL LIGHTHOUSE has always been a popular attraction.

One of the four bunkers that can be found at Beavertail.

INVENTORY

SHEET NO. 9

BEAVERTAIL

004147-15-011-010-1

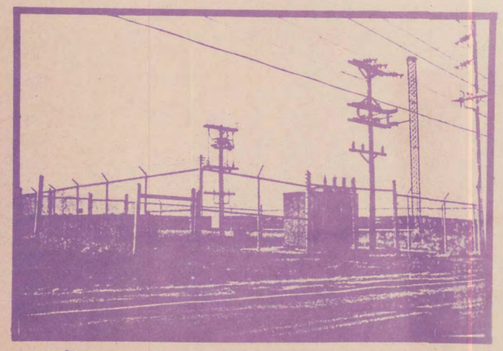
BT 4147 DR 33 SEC 2

NAVAL BUILDING THAT COULD EASILY BE RENOVATED INTO MAINTENANCE FACILITIES.

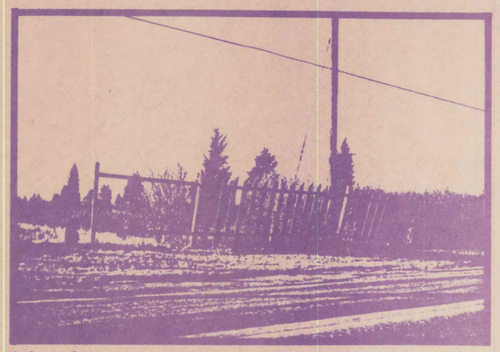
BEAVERTAIL'S SHORELINE IS ONE OF THE STATE'S MOST POPULAR FISHING AREAS.

SITE ANALYSIS

Erosion along the shoreline that was caused by heavy foot traffic.



Transformer at the northern end of the site which should be screened with plant material.



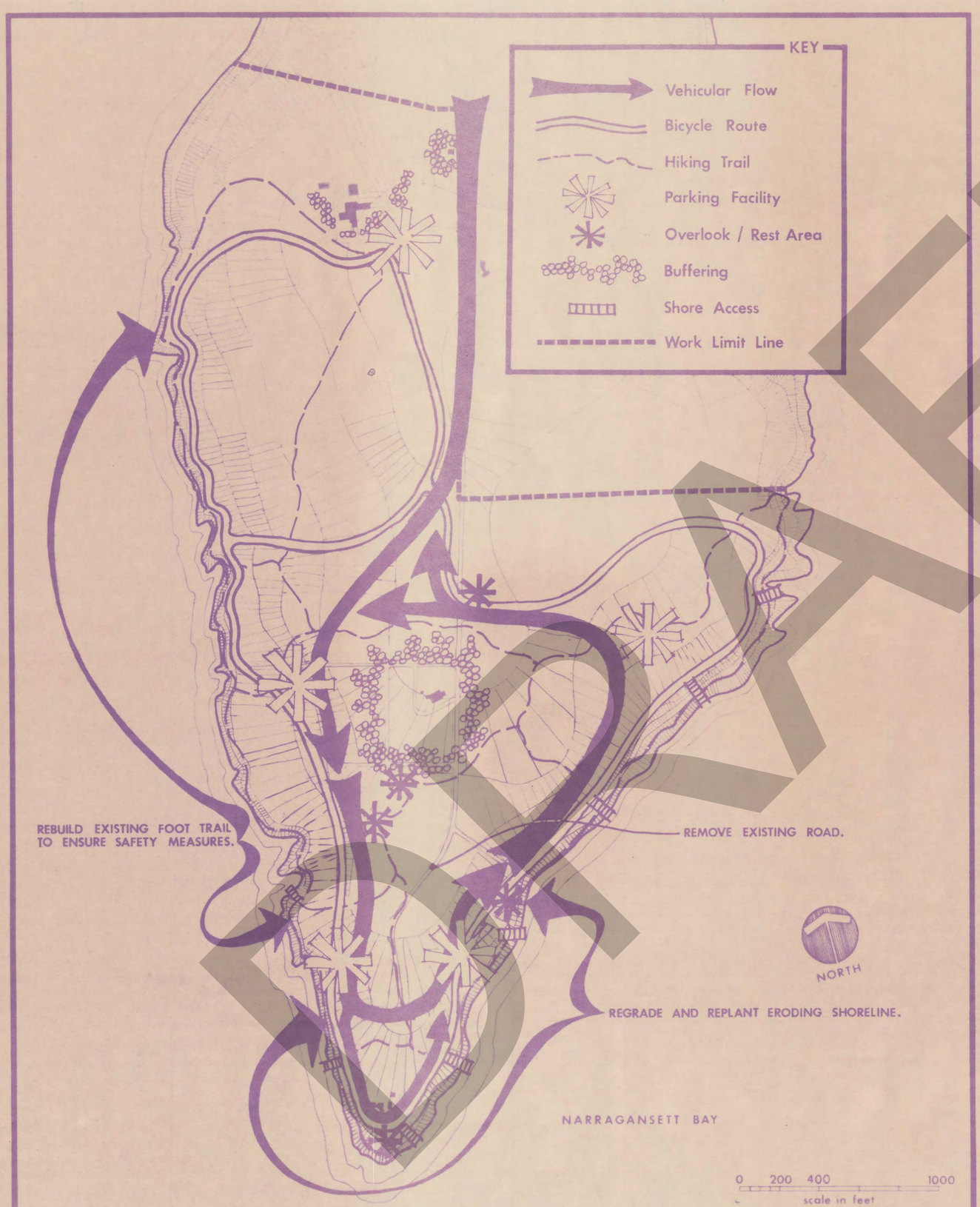
Dilapidated fence along the main road that should be removed.

SHEET NO. 10

BEAVERTAIL

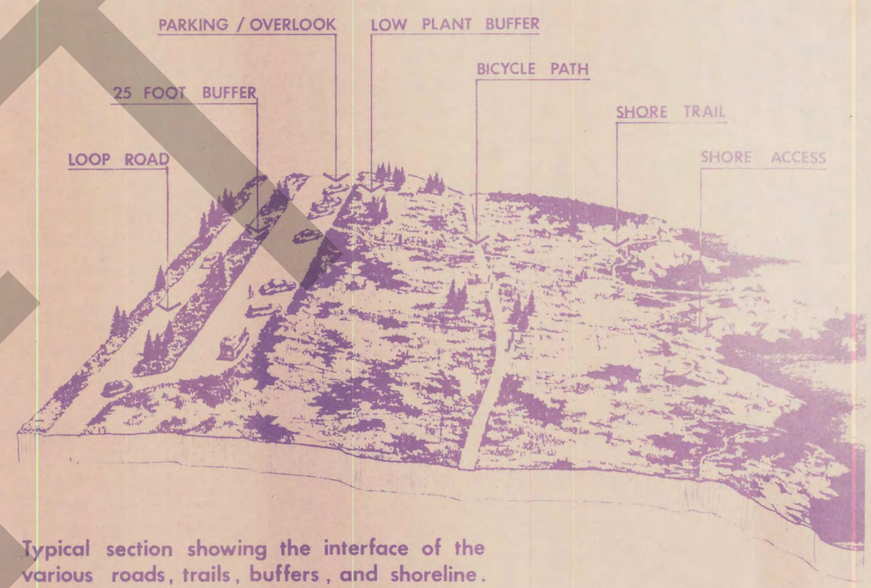
004147-15-011-011-1

BT 4147 DR 33 SEC 2

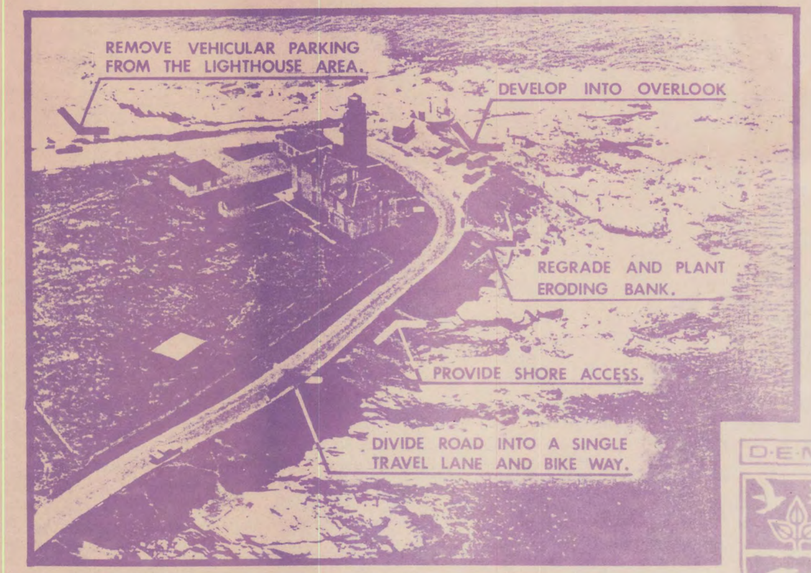


004147-15-011-012-1

SITE DEVELOPMENT



Typical section showing the interface of the various roads, trails, buffers, and shoreline.



Proposals for Beavertail 'tip'.

D·E·M

SHEET NO. 11

BEAVERTAIL

BT 4147 DR 33 SEC 2

D·E·M

CONTROL BOOTH

PARKING (30 CARS)

MAINTENANCE BLDS.

TWO-WAY ENTRANCE ROAD

KEY

- Vehicular Roads
- Bicycle Trails
- Hiking Trails
- High Vegetation
- Low Vegetation
- Open Fields

PICNIC AREA

PARKING (30 CARS)

NAVAL COMMUNICATION CENTER (to be retained)

PARKING (30 CARS)

ONE-WAY LOOP ROAD

PARKING (30 CARS)

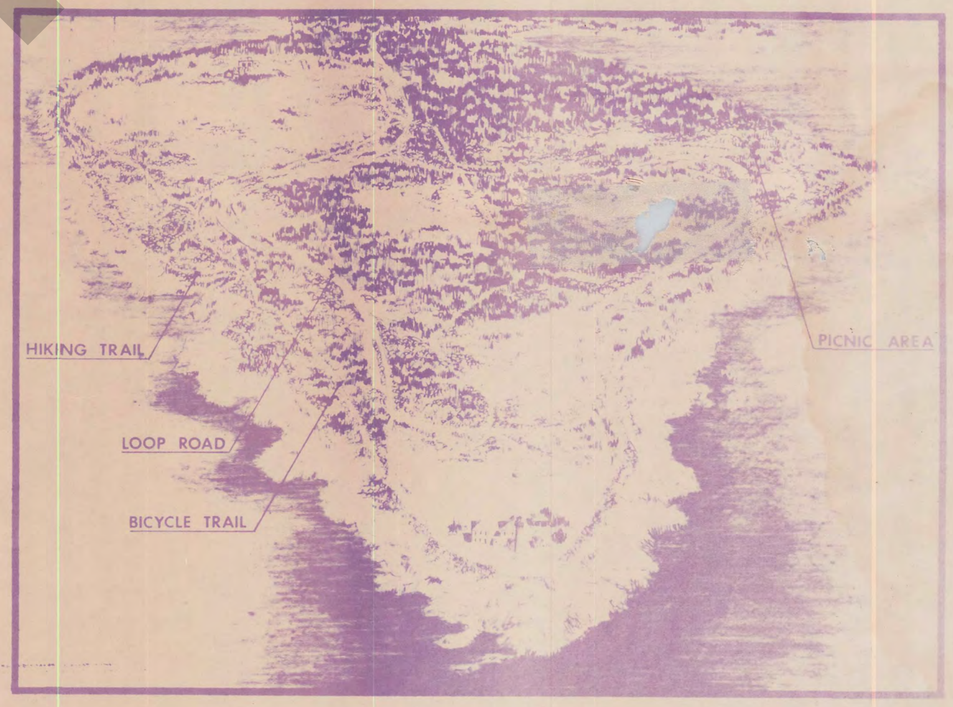
PARKING (30 CARS)

LIGHTHOUSE

0 feet 400 800 1600

Prepared by D.E.M.

004147-15-011-013-1



PROPOSAL

SHEET NO. 12

BEAVERTAIL

BETA
IMPROVING COMMUNITIES TOGETHER

06 Historic Report - Spraycliff - US Navy Radar Research Installation - Research Papaer, Varoujan Karentz

Photo courtesy of Anna Templeton-Cotill

Beavertail

World War II 1942-1945
Spraycliff (Mickey) Site
and
1946-1974
US Navy Communications Station

Varoujan Karentz

April 2012

Beavertail's Secret Spraycliff Development/Test Facility During World War II (1942-1945) and the U.S. Navy Communication Station 1946-1974

An earlier paper describing World War II operations at "Fort Burnside" on Conanicut Island's Beavertail peninsula was titled "Harbor Defense Command Post" (July 2000 also written by V. Karentz) provides insight into the extent of military operations on Beavertail. The classified "Spraycliff" facility and the Navy Communication Station were mentioned only briefly in the previous article. This essay explores both those operations in greater depth and provides details as to the crucial technical contributions both operational facilities provided for the defense of our country.

Historical Accuracy and Technical Content

This paper is very limited in scope due to the scarcity of historical records. Although searching various government archives was conducted, comparatively few related documents were uncovered. Information from interviews and exchanges of correspondence with actual personnel assigned to the location have been included where applicable. Those sources readily admit recollections of events 60-70 years ago are somewhat vague. As a result, there are many gaps in time and a lack of confirming data. Accordingly, this paper contains only snap-shops and incomplete historical references, but hopefully provides other researchers a basis to undertake more investigation. Other sources and other archival locations will no doubt yield additional information.

The casual reader may have difficulty comprehending the technical inclusions in this paper, however the technical content is necessary to document the equipment used and to provide future researchers with information to continue gathering related data and expand knowledge of both the classified Spraycliff's operations and the U.S. Navy Radio Transmitting Communication Station.

This paper also attempts to record and document the historical significance of the secret radar development and test location undertaken jointly by the U.S. Navy and the Massachusetts Institute of Technology (MIT) during World War II.

Background

Beginning in 1941and for the next 33 years, 185 acres of the Beavertail peninsula from just north of Beavertail Farm and south to the Beavertail Light Station was closed to the general public. The property now belongs to the State of Rhode Island. It is administered by its Department of Environmental Management (DEM) and known as Beavertail State Park. While it is generally known that military operations existed on Beavertail, few details have been brought to light as to the extent and description of the equipment deployed or its purpose. More importantly, the public is generally unaware of the role of government activities at Beavertail during World War II and the Cold War of the 1950s through 1974. Only recently have classified papers been released

describing the development of electronic systems and the impact these systems had in changing the direction of the war with Japan in the Pacific theatre. Additional technological advancements following the war greatly enhanced Navy radio transmitting capabilities to allow communicating world wide as a tactical command relay operation to the fleet and other navy shore stations.

To appreciate the importance of the Navy operations on Beavertail, one first needs to recognize how the varied facilities complemented other naval activities around Rhode Island's Narragansett Bay. By 1946, a year after the end of World War II the naval complexes in the bay area, including facilities at Beavertail, were consolidated under a single command identified as the U.S. Naval Base Newport. Both World War II and the shift from offensive to defense requirements in peacetime (the Cold War) precipitated much change to Navy organizations. Other world situations that developed during 1946-1974, such as the Korean, Cuban and Vietnam conflicts, demanded establishment of associated commands.

From the 1940s to the 1970s, fifteen facilities existed in Rhode Island as components of the Newport Navy Base: Naval Air Station (NAS), Quonset Point; Naval Auxiliary Air Station (NAAAS), Charlestown; Naval Advanced Base Depot/Construction Battalion Center, Davisville; Naval Station, Newport; Naval Hospital; Naval Torpedo Station; Naval Supply Depot; Naval schools; Marine Barracks; Fleet Training Center; Naval Communications Station; Naval Degaussing Station; Harbor Defense Unit, Jamestown Operations; Naval Net Depot, Melville; and Motor Torpedo Boat Squadron Training Center (MTBSTC), Melville. Coupled with these units were "associate commands" not under the jurisdiction of the Newport Navy Base. These components included the Naval War College, and the large Atlantic Fleet Destroyer Force.

At its peak, near the end of the 1960s, 10,000 civilians and 38,000 military personnel were assigned to these various units. Added to these numbers were 59,000 students who cycled through the various schools and short-term classes. By 1972 all of these numbers had been reduced by half, and a year later the Navy Department disestablished the Newport Navy Base and sent its fleet elsewhere. Along with this action, all semblance of military activity on Beavertail was terminated.

Acquisition of the Beavertail Properties

On 2 October 2, 1941, just prior to the United States entering World War II, Secretary of War Henry Stimson directed the Eastern, Western and Southern Defense Commands to plan harbor defense deployments with Harbor Entrance Command Posts (HECPs). HECPs were designed for the protection of strategic harbors and to prepare specific mission requirements for each area. Seventeen key locations in the continental United States, including Narragansett Bay, were selected to develop HECPs; and by December 20, 1941, Stimson issued orders placing all HEPCs on a war alert.

On Conanicut Island, a joint Army-Navy defense team first constructed a 12 by 30 feet wooden observation shack on government property. The location was south of the present Beavertail Lighthouse, beyond the road on a rock ledge 75 feet west of the original Beavertail Light foundation ruin.

Foreseeing the need of more property, on August 14. 1942, the government acquired 88.55 acres through the power of eminent domain from the Joseph Wharton Estate. The procured land was named Fort Burnside. Also, between 1942 and 1943, additional acreage was added by condemnation and lease from several other private owners including Sydney L. and Catharine M. Wright. Eventually a total of 185.22 acres was acquired. Additionally, for reasons unknown one small parcel of a tenth of an acre was leased from Beavertail Farm.

Subsequently, a second observation post was built north of the Lighthouse to command the entrance to the West Passage of Narragansett Bay. Those two command/observation posts remained in operation until July 1, 1943 when the new HECP building (still standing) was constructed and jointly occupied by the Navy and the Army's Rhode Island National Guard's 243rd Coast Artillery. The structure was identified as " Bombproof Cottage C-1" and looked like a farmhouse. The entire site was called Fort Burnside. Geographically, Fort Burnside's HECP was located between the U.S. Coast Guard light station property and approximately midway within the present northern boundaries of Beavertail State Park. The HECP building still stands in Beavertail State Park and is under custodial care of RI's Department of Environmental Management. The custodial resident an avid collector of military radio equipment retains a large collection of surplus WW II transmitters and receivers in almost every room of the structure. In January of 2004 Articles of Incorporation were filed with the RI Office of Secretary State for no-profit corporation status as the "Fort Burnside Communication and Coastal Defense Museum" by a group headed by the resident custodian.

Further to the north part of the property on the west side of Beavertail Road, the Navy/MIT Spraycliff development and test facility was constructed in 1943 or early 1944. After WW II it was deactivated and renamed the Naval Radio Station Newport (NAVCOM N-RI-467).

In July 1973, 20 acres was conveyed by deed to the Town of Jamestown by the government for use as a public park. In 1975 the U.S. Navy reported to the Government Services Administration that 185 additional acres in the area were surplus. Bits and pieces were carved out for road access, electrical power rights of way and service. Jamestown residents and environmentalists raised strong opposition against any type of commercial development. With direct involvement by the late Senator John Chaffee, environmentalists succeeded in persuading the U.S. Government to deed the property to the state. On April 16, 1980, 158.18 acres was deeded to the State of Rhode Island with the U.S. Government perpetually holding all oil, gas and mineral rights to the property. The 20 acres deeded to Jamestown were leased to the State of Rhode Island in July 1980 for 40 years, with renewable 40-year options. The entire Fort Burnside site and Navy Communication Station is now known as Beavertail State Park.

Operations

Two distinctive operation periods occurred on the government owned/leased Beavertail property: World War II 1942 to 1945 and from 1946 until 1974 when the Navy Base organizations were disestablished.

The first use was as a highly technical radar development and testing operation at Beavertail's Spraycliff. At this facility the U.S. Navy and MIT's Radiation Laboratory (Rad Lab) teamed together to solve crucial state of the art radar design issues and develop a tactical airborne night fighting system. Early in the Pacific war theatre, the Navy's aircraft carrier fleet saw the need for airborne night fighter aircraft and set in place specifications and requirements for radar equipment, aircraft and crew training. The program was called "Project Affirm" and involved a large military and civilian commitment of engineers and scientists from both universities and manufacturers of electronic equipment. The resulting hardware was sent along with a cadre of trained navy pilots from the Quonset Air Station and the Charlestown Navy Auxiliary Air Station to aircraft carrier groups in the Pacific. These pilots dramatically changed the effectiveness and success of the U.S. aircraft carrier fleet in night intercept battles against the Japanese.

The exact date that Spraycliff was established is not clear. Most probably the site was activated in late 1942 or early 1943 as microwave high frequency technology became available. Early radar systems operated in the VHF (Very High Frequency) range. After the British built a successful microwave cavity magnetron (the key component in higher resolution radar systems), engineers, scientists and physicists in the United States began designing and improving radar systems. Mass production of magnetrons was achieved, which broke the radar log jam on production lines. These newer systems were small and light enough to be used in aircraft. The evolution carried the Navy and MIT to begin testing, debugging and improving systems at the Beavertail field station.

Because of its collection of surface search radars, Spraycliff also played an integral functional role in training the Navy's aircraft carrier operations Combat Information Center (CIC) crews. CIC personnel managed the vital command, control, communication and surveillance operations plotted onboard U.S Navy aircraft carriers.

The second period was after the end of hostilities with Japan when the Navy's worldwide communication network broadened its Cold War capability to the fleet and overseas receiving stations. New communication needs using high power transmitters and antennas were required. The Spraycliff site, along with the HECP and the entire 185.22-acre property was re-designated as the U.S. Navy Radio Station (Transmitter) abbreviated USNAVRADSTA (T). The station was designed and equipped to communicate worldwide during degraded atmospheric propagation conditions affected by seasonal or daily changes in the reflecting layers of the ionosphere and sun spot cycles. The effectiveness of Spraycliff's earlier training program of aircraft carrier CIC crews was continued, expanded and carried on as an adjunct of its new communications role.

These operations all took place on what is now known as "Beavertail State Park" during the years 1943 to 1974. Although the Navy communication site was officially closed down in 1974, it took some time to dismantle the equipment and remove the buildings and antennas. Two aviation beacons were kept operational primarily to assist Navy aircraft on approaches to Quonset Point. Security guards were assigned to prevent theft and vandalism and the site remained off limits to the general public. During the late 1970s and early 1980s the Providence Radio Association (W1OP) succeeded in obtaining permission to use the site for their annual 24-hour "Field Day" event that used low power radios and portable power generators. They

found the site mostly intact, but deteriorated with no evidence of any maintenance on the grounds or the antennas. The large Horizontal Log Periodic antennas and the 600-ft high NORD antenna had been taken down, deemed to be aeronautical hazards. Connecting their radios to the existing antennas on the 130-ft high towers brought unbelievable reception and transmission. The radio operators were ecstatic with the reports from foreign ham stations around the world complementing them on the strength of their radio signals.

Very little trace is left of these operations, since laboratories, equipment, administrative buildings and antennas were dismantled, moved and/or destroyed. By 1981 demolition of most of the buildings and removal of all the field antennas had been completed excepting the historic HECP. The area is now overgrown with foliage, shrubs and trees. What remains are some deteriorated asphalt roads, a concrete water cistern a large radio coaxial Helix antenna coupling building with its concrete antenna mount and some antenna guy wire anchors. All other semblance of either the Spraycliff facility or the Naval Communications site is gone, absorbed into almost 40 years of foliage and brush growth of Beavertail State Park.

2010 Google Earth view of the Spraycliff/Navy Communications site on the west side of Beavertail Road. The site included radar towers, mess hall, barracks, administration building, various operation and maintenance buildings, security/sentry house and emergency power shed.. The Power Transformer location owned by the National Grid is presently used as an unauthorized parking lot. During the Navy

communications era after WW II numerous transmitting antennas dotted the landscape south of this location.

Fort Burnside 1942-1946

While Conanicut Island has a colorful history of military involvement beginning during the revolutionary days (e.g., the Conanicut Battery) and during the Endicott era of Coastal Defense guns, it was WWII that brought about the construction of Fort Burnside on the Beavertail peninsula and the Harbor Entrance Command Post (HECP) building. Under the joint operational jurisdiction of the 283rd Rhode Island National Guard and the U.S. Navy, this facility controlled all maritime traffic entering and leaving Narragansett Bay from 1942-1946. Anti-submarine nets and mine fields were installed in both the East and West Passages on either side of Beavertail Point. Underwater cable loops to detect and identify propeller noise were monitored by a Navy team.

The war with Germany was over on May 6, 1945. There was no threat from Japan on the East Coast and the Japanese surrender to Allied Forces followed in August of the same year. At 23:59 hours on June 27, 1945, the HECP was disestablished and one minute later the facility was taken over by the U.S. Navy as the "Beavertail Signal Station", and later known as the "Naval Communications Station". The building site was used for various purposes and took on the look an electronic listening post with towers, radar and wire antennas. The intended look of a serene farmhouse was lost. (*In January 1946 much of the World War surveillance equipment was declared obsolete and authorized to be disposed.)*

The U.S. Navy did attempt to use the area as a Naval Reserve Training Facility during the late 1970s. It was ultimately abandoned. The unattended building was substantially vandalized with much of the electronic equipment smashed or stolen.

Spraycliff *(codename Mickey)* 1943-1946

The Massachusetts Institute of Technology Radiation Laboratory (MIT RAD LAB)

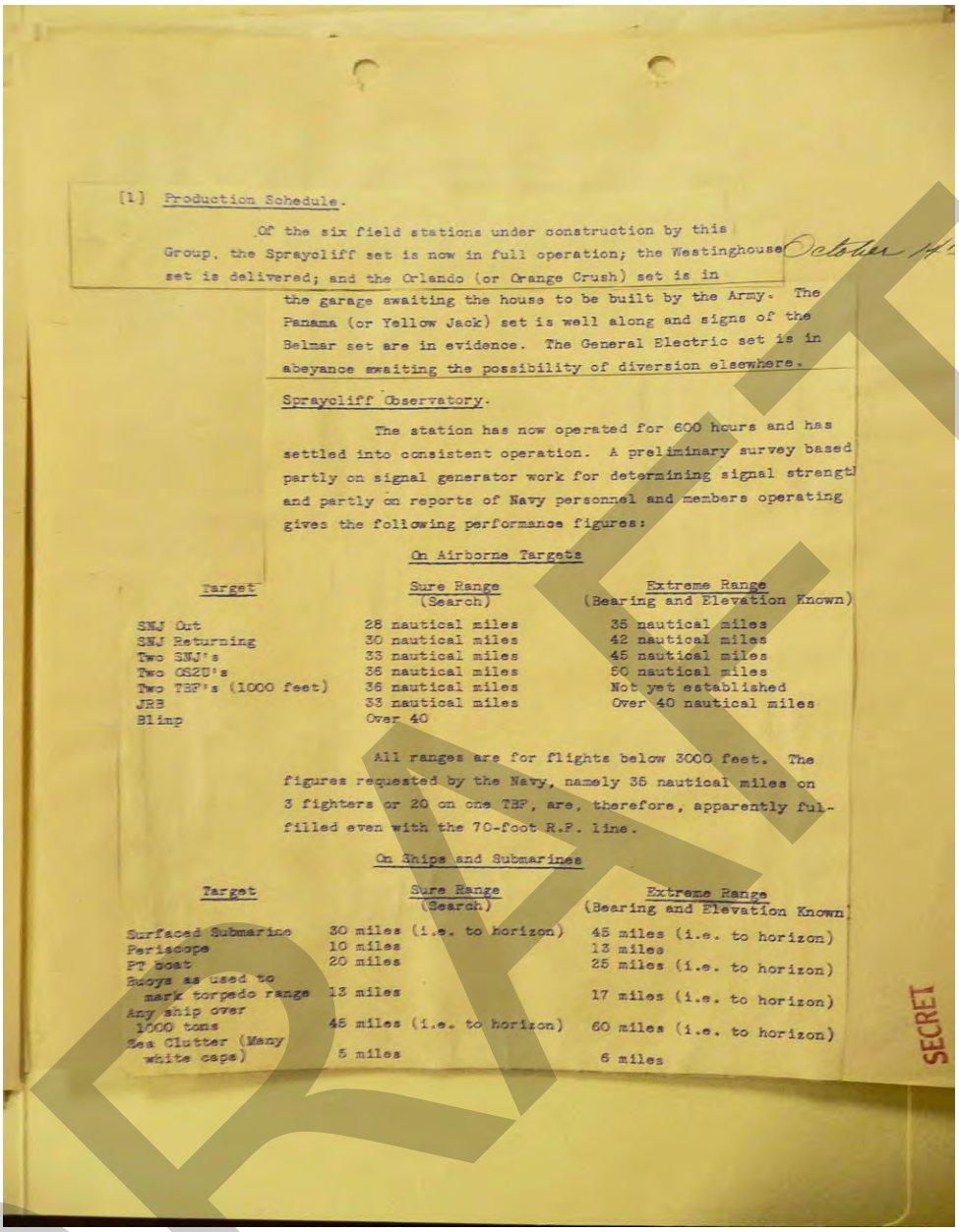
As war broke out in Europe in 1939, the United States, thus forewarned, boosted its war weapons related research. President Roosevelt and Britain's Prime Minister Winston Churchill agreed both nations should pool their technical secrets and develop new technologies vital to the war effort. The top secret "Tizard Mission" to the United States in 1940 started the radar technology exchange. The goodwill relationship between the two Allies, Great Britain and the United States, gave both countries decisive technical advantages during World War II, so much, that it changed the tide of war. In the radar field, the air battles in the Pacific with Navy fighters equipped with advanced technology systems, provided air superiority over Japan.

During the early years of World War II, the U.S. War Department teamed up with the nation's most knowledgeable educational and scientific research organization of radar and electronic systems, the Massachusetts Institute of Technology (MIT) in Cambridge Massachusetts. In 1940 MIT formed an even more prestigious and focused subgroup called the "MIT Radiation Laboratory" that concentrated in designing and developing fledging radar technology.

The MIT Radiation Laboratory, commonly called "Rad Lab", functioned from October 1940 until December 1945. *(In August 1946 all Rad Lab operations closed and were folded into MIT's new "Research Laboratory of Electronics" (RLE).* The Rad Lab was heavily endowed and funded with federal money. The organization was responsible for developing in collaboration with companies such as Sperry, General Electric, Raytheon, RCA, Bell Laboratories/Western Electric and Westinghouse. These companies manufactured most of the microwave radars used by the United States during World War II. Rad Lab engineers also developed LORAN (Long Range Navigation), the world's first radio navigation system prior to GPS. LORAN remained the most widely used long-range navigation system for both vessels at sea and aircraft for 68 years. It was discontinued in August 2010.

Rad Lab's very first priority was to develop a 10-centimeter microwave "airborne intercept" (AI) detection system, a lower frequency predecessor to the 1942 Project Affirm radar. The airborne radar was to be installed on fighter aircraft, both aircraft carrier and land based planes, to detect, seek and destroy enemy aircraft or surface vessels during night time operations.

While radar component and systems engineering was done in Cambridge; tests, evaluation and modifications were undertaken at unobstructed field locations. Rad Lab operated five field stations located at East Boston (Logan Airport), Deer Island (Boston Harbor), South Dartmouth, Massachusetts; Orlando, Florida; and Beavertail on Conanicut Island, Rhode Island.



[1] Production Schedule.

Of the six field stations under construction by this Group, the Spraycliff set is now in full operation; the Westinghouse set is delivered; and the Orlando (or Orange Crush) set is in the garage awaiting the house to be built by the Army. The Panama (or Yellow Jack) set is well along and signs of the Belmar set are in evidence. The General Electric set is in abeyance awaiting the possibility of diversion elsewhere.

October 1

Spraycliff Observatory.

The station has now operated for 600 hours and has settled into consistent operation. A preliminary survey based partly on signal generator work for determining signal strength and partly on reports of Navy personnel and members operating gives the following performance figures:

On Airborne Targets

Target	Sure Range (Search)	Extreme Range (Bearing and Elevation Known)
SNJ Out	28 nautical miles	35 nautical miles
SNJ Returning	30 nautical miles	42 nautical miles
Two SNJ's	33 nautical miles	45 nautical miles
Two OS2U's	36 nautical miles	50 nautical miles
Two TBF's (1000 feet)	36 nautical miles	Not yet established
JRB	33 nautical miles	Over 40 nautical miles
Blimp	Over 40	

All ranges are for flights below 3000 feet. The figures requested by the Navy, namely 35 nautical miles on 3 fighters or 20 on one TBF, are, therefore, apparently fulfilled even with the 70-foot R.P. line.

On Ships and Submarines

Target	Sure Range (Search)	Extreme Range (Bearing and Elevation Known)
Surfaced Submarine	30 miles (i.e. to horizon)	45 miles (i.e. to horizon)
Periscope	10 miles	13 miles
PT boat	20 miles	25 miles (i.e. to horizon)
Buoys as used to mark torpedo range	13 miles	17 miles (i.e. to horizon)
Any ship over 1000 tons	45 miles (i.e. to horizon)	60 miles (i.e. to horizon)
Sea Clutter (Many white caps)	5 miles	6 miles

SECRET

Page from 1943 Project Affirm status report, classified Secret (since declassified)
From RG 227 Records of the MIT Office of Scientific Research and Development

The Spraycliff "Mickey" site was a highly visible military facility. It contrasted with the low-key architectural camouflaged design of the HECP farmhouse located only half a mile to the south. With five radar towers and a stark rectangular building (The Systems Research Field Station) and a dozen ancillary buildings, Mickey left nothing to the imagination as to its military mission. This demonstrates the contradictory thinking of camouflage value compared to the initial design and the purposely visual deception of Spraycliff's neighbor, the HECP farmhouse structure.

A Radio Compass site was constructed north of the facility and used a low frequency, low power transmitter and directional antennas to provide a radio beacon for aircraft to "home" into. Aircraft involved in night tests would approach Spraycliff from the south over water and home in

on the radio compass enabling them to fly directly over Spraycliff's radars and instrumented tracking equipment. Spraycliff had multiple ground based radar systems that included search, tracking and height finding radars. The combination of these radars enabled highly accurate tracking of aircraft during night operations. Test and fighter aircraft evaluations were conducted and pilots became familiar with their aircraft mounted radars. A second Radio Compass station, operating on a different frequency, was located at the northern tip of Conanicut Island to help aviators make safe landing approaches onto the airfield at Quonset Point 2 miles away.

Spraycliff's role on Beavertail was threefold;

First: Under the program Project Affirm, test and develop the APS-6 radar into a tactical night time operational system and train a cadre group of Navy fighter pilots in intercepting enemy aircraft.

Second: create a replica shipboard CIC (Combat Information Center) room to train aircraft carrier crews using real time targets and communications..

Third: Using their surface and air search radars provide target and track data of surface ships and air contacts to the Beavertail HECP.

Project Affirm

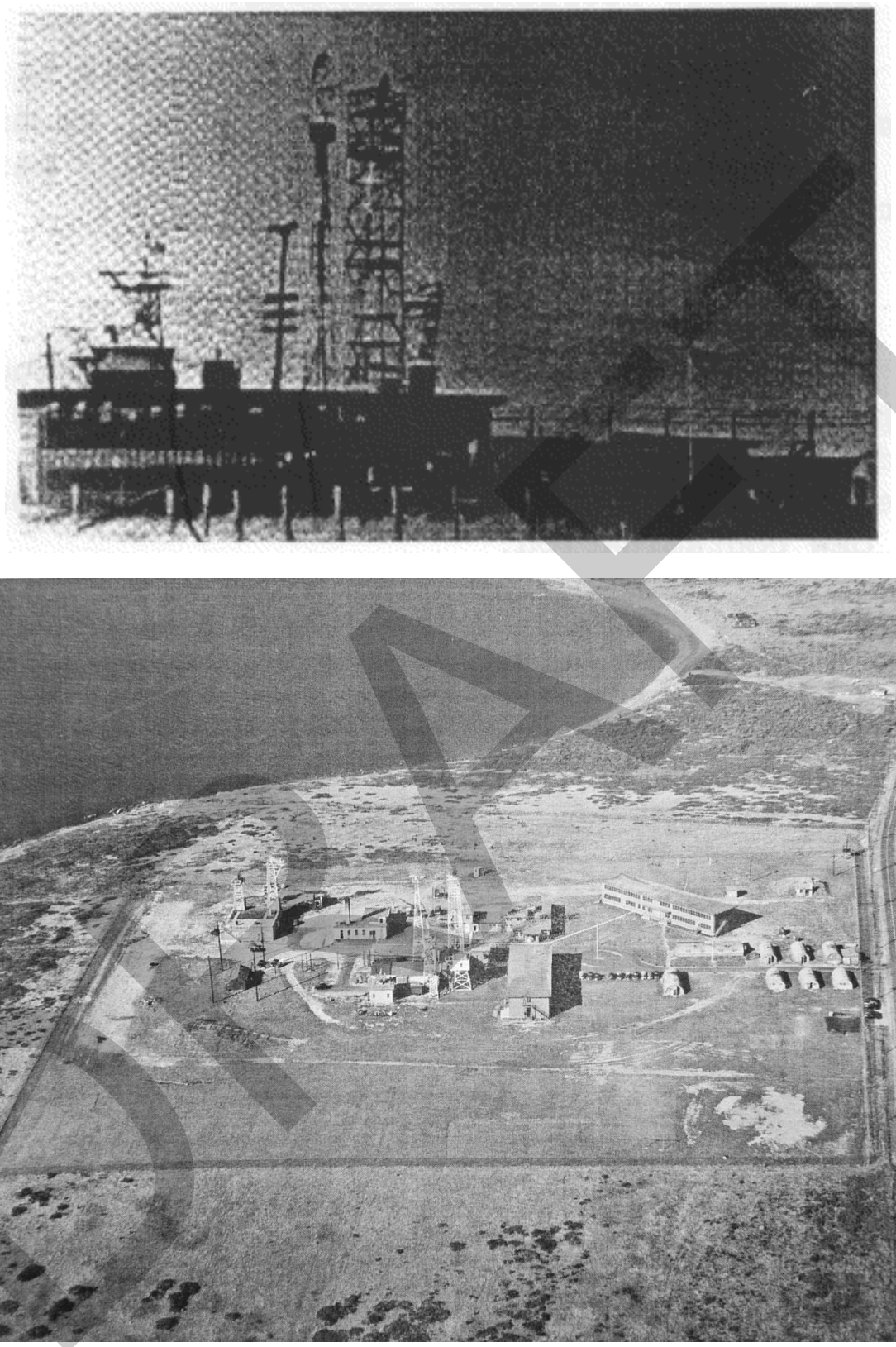
In 1942 Rad Lab had begun work on another airborne radar design called the ASD radar. The project was to develop a 3-cm system (higher target resolution than the earlier 10-cm radar) that could be installed in the Navy's torpedo bombers, the TBF Avenger aircraft, as a surface search radar system. Its purpose was to search and find enemy targets such as surfaced submarines and warships at ranges out to 25 miles. The TBF Avenger was designed as an aircraft carrier-based torpedo/dive bomber that had a crew of three, one of which was a radar operator. The TBF Avenger served prominently in the Battle of Midway and other naval engagements in the Pacific. By the end of WWII TBF Avengers represented 25% of the Navy's combat aircraft.

By late 1943, enemy night actions including bombing attacks on island bases, had increased and the need of night fighting intercept aircraft became a priority. A new tactic was implemented by the Navy where TBF Avenger aircraft were equipped with ASD radar that would act as an airborne controller, the TBF torpedo bomber was then escorted by two fighter aircraft, either conventional F4F Hellcats or Corsair F4Us. The TBF Avenger directed the fighter aircraft close enough so that the enemy aircraft engine exhaust flames were visible enough to engage the enemy aircraft. Coordination between the three planes was difficult, and the Avenger's slow speed (cruise 145 knots, max 250 knots) often could not maintain radar contact with enemy aircraft. *(On 26 November 1943, Butch O'Hare (O'Hare Field Chicago), flying an unmodified F6F-3 on the first night mission with a TBF Avenger from an aircraft carrier, was shot down over the Gilbert Islands. His plane was never found.*) The urgent need of fast night fighting single-seat aircraft equipped with small light weight radars was tasked to the Navy and MIT's Rad Lab.

The secret Spraycliff radar development, test and training station was located north of the HECP and on the West Side of Beavertail Road. The central facility/laboratory structure was called the Systems Research Field Station. Chosen because of its proximity to two Navy airbases, the Charlestown Naval Auxiliary Air Station and Quonset Point Naval Air Station, the site was ideally located to conduct tests. Both bases trained fighter pilots and facilities at Quonset were available to modify aircraft from the results of tests and tactics. Just as importantly, Beavertail's remote and secure location was a relatively easy commute from MIT in Cambridge, Massachusetts. A scientific group of engineers from England (the first developers of radar) were also attached to the Spraycliff site to help convey radar technology transfer in both directions, and solve mutual design and development problems.

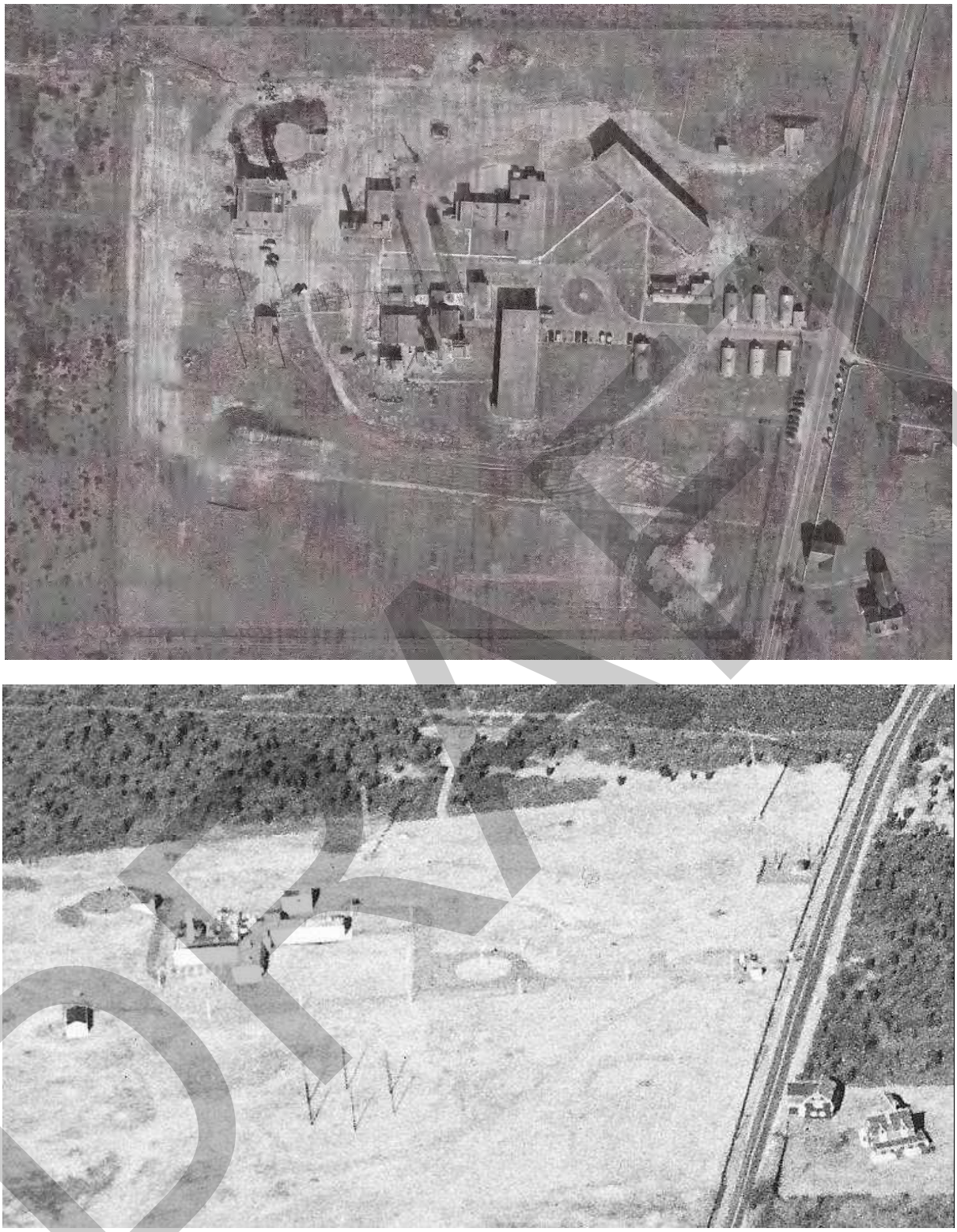
Spraycliff remained in operation through April of 1945 as a joint Navy/MIT Radiation Laboratory research facility, and training test facility site for aviators flying out of Quonset, Charleston, and various aircraft carrier crews cycling though for CIC training .

The uncannily accurate Spraycliff painting by Catharine M. Wright (date unknown)
Jamestown Philomenian Library



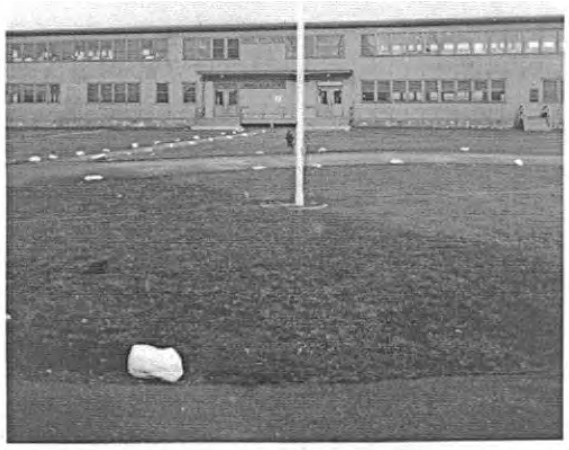
Spraycliff Oct 1945

Photo: Library U.S. Bureau of Aeronautics

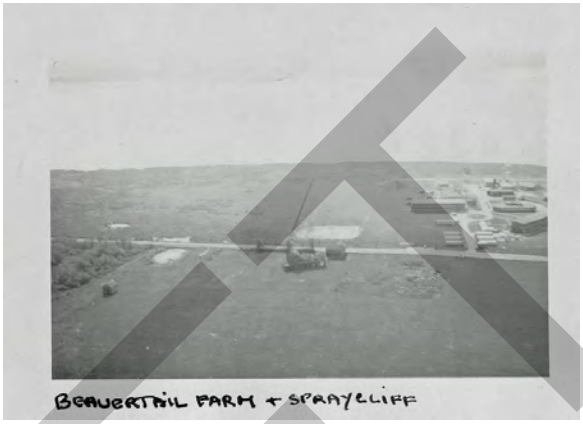


Navy Communications Station on Spraycliff site after WWII. Beavertail Farmhouse lower right. Water cistern center left (still standing 2012)

Undated photo courtesy Anna Tempelton-Cotill



Spraycliff Administration Building
Photo courtesy of James Osbourne



Undated photo Spraycliff and Beavertail Farm
Photo courtesy of Anna Templeton-Cotill

F6F Fighter Aircraft

One of the early considerations of the Navy's Project Affirm team was the selection of the type of aircraft the radar was to be installed in. Since intercept of enemy aircraft was the prime mission, the selection dictated a fast fighter aircraft. The size of the radar prevented the equipment from being installed inside the aircraft, so the design evolved into an external wing nacelle configuration.

Originally the Corsair (F4U) gull-winged fighter aircraft equipped with primitive AI (Air Interception) radar sets built by the MIT engineers was used for testing. In 1943, the Hellcat F6F aircraft built by Grumman emerged as the preferred night fighter because of its easier landing characteristics and greater stability as a gun platform. Various versions of the F6F existed beginning with the F6F-3E. The first Hellcat aircraft were modified, equipped with the AI radar and converted into night fighters at Quonset Point. Pilots were trained and immediately sent to the Pacific. In addition to the AI radar, the aircraft were fitted with red cockpit lighting (to preserve the pilot's night vision), and an improved Plexiglas windscreen to minimize scratching for better visibility. Later versions of the aircraft were built strictly as night fighters, capable of 376 MPH and mounted with six 50-caliber machine guns. These planes were designated as F6F-N5s. During 1944 three radar equipped Hellcat night squadrons (VF(N)-76, VF(N)-77, and VF(N)-78) served in the Pacific.

Out of 12,500 F6F series aircraft produced between October 1942 and the war's end in 1945, over 1600 F6F-5N night fighters were built. Today, of the total number of aircraft built only 16 aircraft remain in museums and owned by private collectors. The air museum at Quonset Point has been re-building a replica F6F (see below). The external radar pod nacelle is not installed on this aircraft.

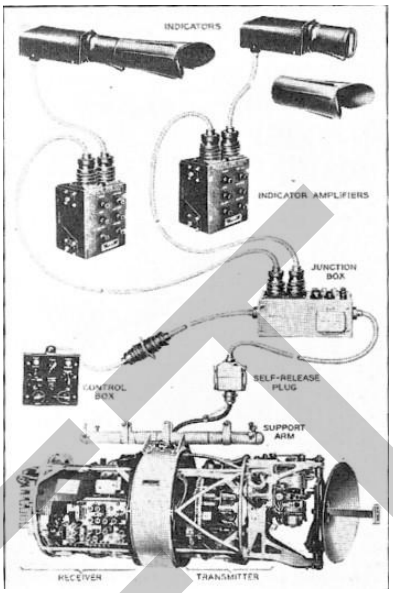
Quonset Air Museum F6F Hellcat

F6FN5 with AN/APS-6 radar on starboard wing nacelle

Carrier group of F4U Corsair Night Fighters with early AN/APS-1 radars

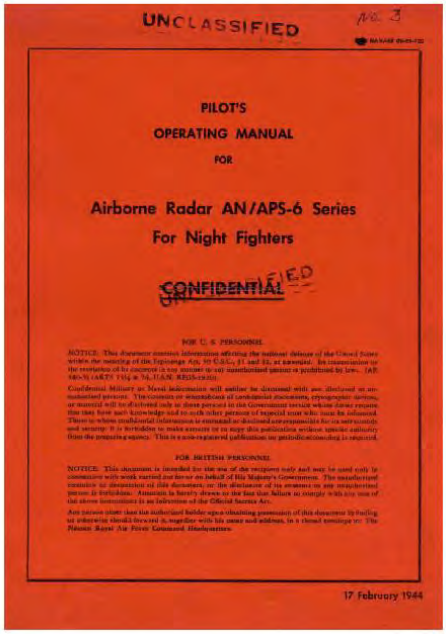
F6F-N5 Hellcat fitted with the AN/APS-4 wing-mounted nacelle

Two inch diameter AN/APS-6 cockpit display



AN/APS-6 Radar subassemblies including cockpit indicators and un-shrouded antenna, transmitter, modulator and receiver. Two displays were used in larger aircraft such as the Grumman TBF.

One of MIT's Rad Lab radar designers 1944


UNCLASSIFIED

PILOT'S
OPERATING MANUAL
FOR
Airborne Radar AN/APS-6 Series
For Night Fighters

CONFIDENTIAL

17 February 1944

AN/APS-6 Pilots Manual
(20 pages)

Figure 4—How Radar AN/APS-6 Sweeps the Area in Front of the Pilot

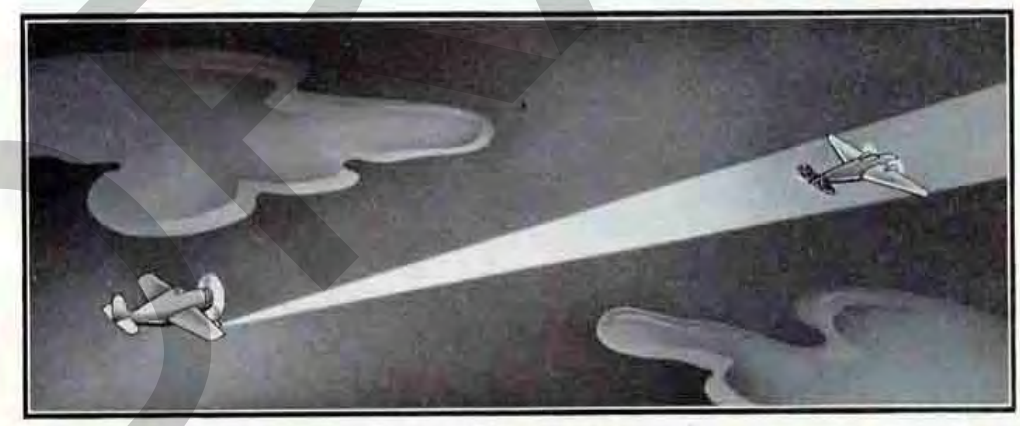


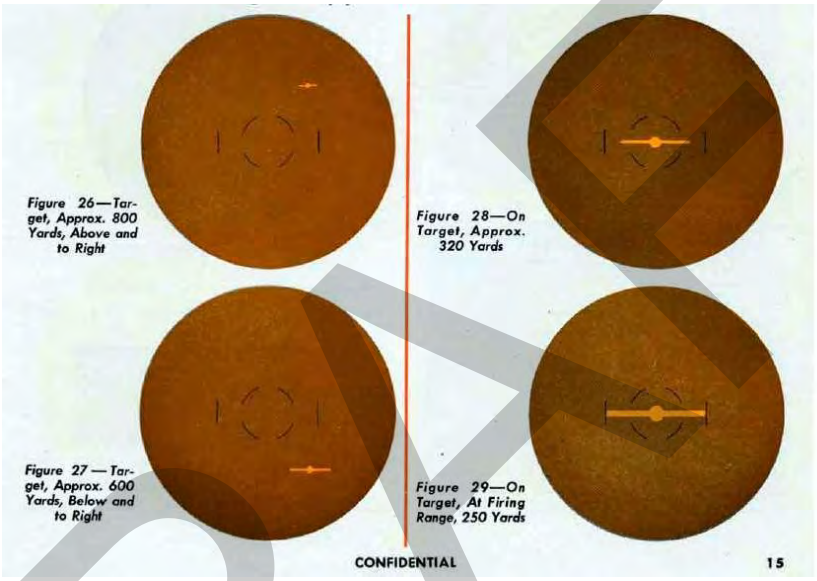
Figure 5—15° Gun Aim Scan

The two modes of the APS-6 Radar.
The antenna beam width in the spiral scan mode was a 120-degree cone. In the conical scan (aim and shoot) mode it was manually switched by the pilot into the narrow 15-degree cone.
Image excerpt from pilot's Operating Manual Feb17, 1944

Radar Configuration

The AN/APS-4 Radar was provided with three distinct functions.

1. Search - for enemy aircraft and surface vessels in darkness or fog.
   The Search position had selectable ranges of 65, 25, 5 and 1 miles.
2. Gun Aim - to fire on enemy aircraft when in proper position.
   The Gun Aim position switch was thrown when the target was within a half mile (1000 yards). When in range of 250 yards the pilot is able to train his guns accurately on the target.
3. Beacon - to locate carrier, land or airborne beacon stations.
   In the Beacon position the APS-4 would interrogate carrier, land or airborne beacon stations.



Pilot cockpit display in Gun-Aim mode approaching the target
Image excerpt from pilot's Operating Manual Feb17, 1944

The radar nacelle pod comprising the 18-inch antenna reflector, transmitter and receiver was mounted on the starboard wing with a pilot's display and control units located in the cockpit. The radar itself went through a number of design changes, not only for technical improvement, but also for functionality. Test intercept missions from pilots under direction from Spraycliff resulted in simplification of the APS-4 radar for single-seat fighters into the AN/APS-6, also known as the AIA-1 airborne radar with a small 2-inch diameter display that was used as the gun sight.

The APS-6 was simple to operate (only six knobs), and weighed 250 pounds. The display featured a double target system that displayed a secondary shadow next to the true target. This secondary image indicated the target's altitude relative to the F6F.

Design and Production Problems

Rad Lab experienced serious microwave RF arcing in the waveguide rotary joint flanges of the "spiral" scan antenna system. The 18-inch antenna reflector was required to spin at 1200 rpm around its axis every 4 seconds. When in the last stage of the homing intercept operation, the pilot would switch the antenna into the "conical" scan position narrowing the beam of the

antenna and centering the target spot in his scope until it enlarged to a determined size where he then would fire his guns.

After weeks of unsuccessful tests and with production delays at the manufacturer's (Westinghouse/Sperry) plants, engineers at Rad Lab reverted to using the earlier 3-centimeter ASD radar rotary joint head. There were considerable other production problems at the Westinghouse plant with other aspects of the radar. Many design changes and microwave component quality problems constantly delayed production schedules. Westinghouse claimed *"From the very beginning, production was plagued with the fact that the engineering and design of the equipment was never completed. Changes, either to meet the existing specifications or new requirements of the Navy, were continuously being received. Many of the components were unique and these brought on manufacturing problems."*

Wavelength	3 cm
Power	1 kW
	
Range	5 nautical miles (9 km) on aircraft 15 nautical miles (30km) submarine 30 nautical miles (55km) on merchant ship 75 nautical miles (140km) coastline
Scope	2" B scope gunsight
Accuracy	3 degrees
Weight	150 lbs

CPS-4 Radar ("Beaver Tail Radar")

One of the most noted Rad Lab scientist and radar developer was Dr. Earnest Pollard. He frequently visited Spraycliff and was instrumental in technological developments that were tested and validated at Beavertail and incorporated into radar systems for both the Army and Navy.

Early land based radar systems, while providing azimuth and range on airborne targets, had no provisions to determine the altitude of flying targets. Pollard undertook the development of a

system identified as the AN/CPS-4 height finder radar and built the experimental model for test/evaluation at Beavertail. This radar had a range of 90 miles, a 25-ft high antenna operated in the S-Band (2-4 ghz). It was nicknamed the "Beaver Tail". The CPS-4 was used by controllers at Spraycliff along with SCR 270-271 radar search sets to vector the night fighting aircraft from Quonset and Charlestown during intercept training flights; but also, because of its success, was placed into production for antiaircraft battery use. The Beavertail CPS-4 went on to be used by the Air Defense Command (ADC) worldwide for many years, and later as a precision air traffic ground control approach radar.

For his work on radar development, Pollard received the President's Certificate of Merit from President Harry Truman.

The AN/CPS-4 "Beaver Tail" Radar
Named "Beaver Tail" because the first model was built and tested at Spraycliff, the CPS-4 became the standard height finder radar at air defense sites worldwide.
Photo courtesy of National Archives

With considerable air training exercises being conducted over Narragansett Bay and the surrounding area, a number of accidents occurred. The HECP and Spraycliff participated in coordinated air/sea rescues of downed aircrews. Citations and awards were presented to the station and crewmen of both the HECP and Spraycliff for their life saving actions.

The Night Fighter Pilots

In August 2003, through the efforts of William Slater Allen of Wakefield, Rhode Island, three Navy surviving Hellcat pilots and one electronics officer of Project Affirm "Air Squadron VN (N) 76" met for a 60-year reunion and were invited to revisit Beavertail. All four had visited the site during 1943. Hiking through the underbrush and the overgrown roads of the Spraycliff site, little was recognized. The Jamestown Historical Society hosted them for lunch and discussions related to their experiences. Questions and answers were recorded and transcribed. Some

excerpts from those transcripts are provided here, including their first hand recollections of both training and combat experiences.

The four men were part of a group of 12 pilots and an electronics specialist who were urgently sent to the Pacific war theatre with their modified aircraft. They were assigned to three aircraft carriers, the USS Yorktown CV-10, USS Lexington CV-16 and USS Hornet CV-12. They were the cadre to train the F6F carrier pilots. All participated in extensive combat operations and helped secure air superiority over the Japanese forces in the Pacific.

Project Affirm's remaining cadre Air Squadron members at Jamestown's Portuguese American Club restaurant (Aug 2003). F6F Pilots Fred Dungan, Paul Kepple, John Gilman and Archie Stockebrand (Electronics Officer)

Photo by Author

"Beavertail had a ground radar(s) that directed us in the air to the bogey (the simulated enemy) and then we would come within sight, they would pull us into the back of the target and then we would say "Tally Ho!" and we would have the target in our radar scope and we would close in on him.

We had two little dots on the radar scope. The right hand dot would indicate whether the target was below us or above us so we could match his altitude and they would give us his speed, his estimated speed, and then we would add another fifty miles per hour to that and closing fast and then when we got to within a mile or two we'd slow down and match his speed and check the airspeed indicator to know exactly how fast we were going and then we'd close in at ten or fifteen miles an hour faster.

During the last quarter of a mile, if the radar wouldn't pick up the target you'd be in your cockpit looking for stars to be obliterated, for exhaust pipe glow to appear, for anything. And your imagination would start working. And I have seen huge big flying machines shaped like bats, float over my cockpit. Oh, your imagination would just…. dragons would float over and then finally you'd actually see something blocking out the stars, and if there were no stars you'd pick up the exhaust pipes, the little glow, and sneak up on this target, visually identify it, drop back 1000 feet and your night gun sight would indicate how far back you were.

You had to know the size of the airplane and then you would relate that on your radar scope and you'd touch your trigger and your six 50 calibers [guns] would fire at six hundred rounds per minute and that's all it would take to eliminate that target.

Mickey fed us beautifully. These crazy flight directors were in this dark room watching the radar scope looking at blips on a chart and directing, and we had to try to direct too, and that was so difficult, trying to … a target is moving say about 180 knots, going in one direction, and you are trying to direct a fighter plane that is going about 180 knots in back of him and turn him to face so that his radar will pick up at within three miles, actually five miles.

You would pick up the target. Beyond five miles we couldn't pick him up. But at three miles he'd be a very strong target."

"It's hard for me to visualize any serious formal training because in Project Affirm we all did it to the best of our ability, the only way you could, which was to follow the guy in front of you and to try to shoot him down, close in. But the training syllabus was established later and, what would it take, three months?

"Well, we arrived in September of '43, and took off for Hawaii in January of '44. So that was four months. And we left two months early, because they were getting nervous out there. They needed night fighters. The Japanese were destroying our efficiency by keeping the fleet awake at night. In November we lost Rich O'Hare on a night fighter strike team. The night fighter strike team at that time was made up of a torpedo plane that had big radar on it to close in on the target, and the fighter plane has the gun platform to shoot the target down. O'Hare got shot down by one of his own people. So they cancelled that program."

"They didn't know what to do with us. Admiral Mitchell didn't think the night fighters could fly at night, or land at night. None of the skippers of the carriers had any good experience at night. They'd all had night experience and lost people. Crashing into the island… Crashing on landing… Losing them by disappearing…. Engine malfunctions on take off.

The group I was with, the five pilots, ended up on the Yorktown. The Yorktown was skippered by Jocko Clark, a full-blooded Cherokee Indian, the first North American to graduate from Annapolis. He said to our skipper, Russ Reiser, "I want you on the flight deck after supper to walk with me. I do my constitution then. I walk a couple of hours. His first comment to Russ Reiser was, "Welcome aboard Lieutenant Reiser. Now, just what the hell can you night fighters do that those day fighters can't do?" He considered himself a day fighter.

Well Russ went on to tell him how we can sneak up behind them and shoot them down without them even seeing us and get back to carrier and land very nicely and have a nice sleep all night.

Russ said Jocko Clarke's face started to beam like he had found a new toy to play with – the night fighters. Jocko Clarke wrote a book, an autobiography, entitled Carrier Admiral. In that book it was stated that Jocko Clarke turned the aircraft carrier from a defensive mechanism to an offensive mechanism. This was what he was thinking of… "How can I use this new tool I've got… oh goody goody goody… we can harass the Japs at night which we used to do. We used to go in at night and hit the islands and things. The first time we flew at night, about two weeks after we got aboard the carrier. All four went up and all four came back. We'd done it so often it was nothing. The day fighters wouldn't even talk to us, they were so jealous; a little professional jealousy there. We were known as "Jocko's boys", those night fighters.

When we transferred to the Hornet and Jocko called for us, then it really became a little touchy in the ready room. We were with the day fighters and we didn't play acey deucy with them. They couldn't find anyone to talk to. We were ostracized. So then we found room in the torpedo squadron's ready room and we went there. And they loved to have us there. It was great, really nice. A little jealousy there, you know, because we were so highly trained.

This was one thing Russ said, "Jocko, you must realize that we are trained at the peak of our profession, of our ability, like an Olympic athlete. We have to fly a lot to maintain that proficiency."

Jocko said, "I'll see to that."

That evening he got back to his cabin and he told the air group commander and said, "We've got these crazy night fighters aboard that have to fly a lot to maintain their proficiency." The commander told the fighter skipper, "We've got these crazy guys who fly at night and they need a lot of practice during the daytime to maintain their night proficiency." And the day fighter skipper said, " I'll use them on every strike I can use them on except number one strike." Number one strike is usually when you have shot them down. Number two strike came into a clean field. But, it didn't work that way. Number one strike would go into a target, he'd wake the enemy up. Number two strike, which we would be among, flying day fighters, would come in, shoot down some airplanes and come back. That's why the five of us shot down twenty-seven aircraft. And this didn't set very well with the day fighters either. We had the training flying up against the Japanese Zero. The Japanese Zero was a much better airplane than the Hellcat.

The interesting thing, we came back from a dog fight once and I went to the fighter ready room. We were all mixed up and we asked them if they saw this and this and this. I heard two of the old timers talking, one of 'em said "You know that Zero, it's the first time I've really seen it perform. But that Zero is some fine airplane. If we had been in Zeros and the people we shot down had been in Hellcats, we'd have still won, even more." Because they thought the Zero was that much of a better aircraft.

It was, under certain conditions. You kept those conditions in your favor when you were flying a Hellcat, which was slow. Keep it slow. At high speed we had such bulk and such weight that it would take us a long time to get that airplane maneuvered around. And every maneuver you make in an airplane is a parabolic maneuver. It has a start and an end and you can pretty well predict where that end is going to be, unless something violent happens in the middle of a maneuver.

At slow flight, the Hellcat, you can kick the rudder around and change direction, which the Japanese couldn't do because their aircraft was that much more delicate. It wasn't as beefy. It would tear the wings off of it, if they tried that. Plus we had the horsepower to pull us from a dead stall right up into a climb, that they didn't have. So we had advantages that you could use for yourself and make the Japanese look a little sick, and come back. Because, only one person comes back from the dog fight."

"Johnny Deere was our gunner officer, he was a good gunner. He said we will have all fifty calibers to meet at one spot at 1000 feet. Now the day fighters we were flying with had the outboard guns meeting at 1200 feet, the mid guns at 1000 feet, and the inboard guns at 750 feet, which is like taking a handful of gravel and throwing it at a bird. Our guns all pinpointed at 1000 feet and it was like taking a rock and throwing it at the bird. You hit him. He's gone."

The Navy Transmitter Communication Station 1946-1974

USNAVRADSTA (T) Beavertail 1974
Beavertail U.S. Coast Guard Light Station lower left. Hull Cove (Clarke's Village) mid right, Bayberry Road and Bonnet View Drive upper center.

Photo Courtesy of Anna Templeton-Cotill

The vast communications facility on Beavertail was an extension of U.S. Naval Communications Station Newport (USNAVCOMMSTA NPT). It went into service immediately after the war gradually expanding the old Spraycliff site and the grounds to the south of it into a massive antenna farm with a variety of antennas. The site served as the transmitter facility tied into the Newport Navy Base with its sister receiving station (USNAVRADSTA (R) located on Sachuest Point, Middletown. The transmitting station at Beavertail and the receiving station at Sachuest Point were separated to reduce both overloading the receivers by adjacent channel high power RF transmitters and harmonic interference to the Navy receivers, which had sensitive low noise front end amplifiers enabling them to receive weak signals from world-wide stations.

Beavertail contained an extensive antenna farm of various types of antennas, primarily of "log periodic" and "discone" design. The log periodic antennas were essentially broadband antennas allowing high efficiency of radiated signals over a wide range of radio frequencies. Mounted on 130-ft poles and towers, they could be rotated. They provided directional gain, thereby increasing radiated signal strength toward the direction they were oriented. Almost all of the 186 acres of land, now Beavertail State Park, were utilized.

A multitude of transmitters were in use at the site including seventeen TMC AN/FRT-39 10KW, ten TMC URT-19 1 KW, two TMC AN/FRT-40 40 KW transmitters, and one Continental Electronics AN/FRT-72 100 KW Transmitter. The latter fed the NORD antenna described below and operated on 129.5 KHz sending multiplex broadcasts to the fleet on redundant channels.

TMC (Technical Material Corporation) was the prime supplier of HF (high frequency transmitters and receivers to the Navy. Their reputation for quality and reliability was outstanding for both land-based and shipboard radio equipment. The Sachuest Point receiver station in Middletown was also equipped with TMC manufactured receivers.

Combat Operations Center (COC)

As a continuous upgrade to the earlier CIC (Combat Information Center) training facility conducted at Spraycliff during WWII, the Navy petitioned Congress for new funding to expand its re-named Combat Operations Center (COC) and provide fully intergrated COC team training. Prior to the expansion, training facilities were limited and fully integrated team training non-existent The Navy stated "Beavertail plays the vital part of air defense training leaving the Newport-Quonset-Boston area as the only station for critical training of COC crews". The electronic equipment expansion was authorized in May 1950 to provide both advanced and refresher training for aircraft carrier air groups, pilots and air crewmen in intercept tactics, air control procedures and air/sea rescue exercises. The advanced center replicated shipboard plotting rooms, employed synthetic target generators, radar displays, aircraft and surface ship plotting equipment.

The modern improvements allowed aircraft carrier, cruiser and destroyer radar-type crews full capacity training with as many as three COC teams, each numbering 65 students under the expansion program. The former 7200-sq. ft. Spraycliff Systems Research Operations Building No. 28 was used for this expanded operation. Nearly every CIC/COC crew of the Navy's aircraft carrier force, including the Midway, Enterprise, Kitty Hawk, Forrestal-class ships and the "escort carrier" (CVE) fleet were trained at this Beavertail facility.

Beavertail Antennas

The geographic siting of antennas with over 270 degrees of saltwater electrical counterpoise for radio communication surrounding the Beavertail peninsula was considered superb. COMMSTA at both Norfolk, Virginia and Washington, DC sent daily requests to Beavertail to relay communications to specific aircraft or ships that they could not communicate with due to poor atmospheric propagation or other anomalies.

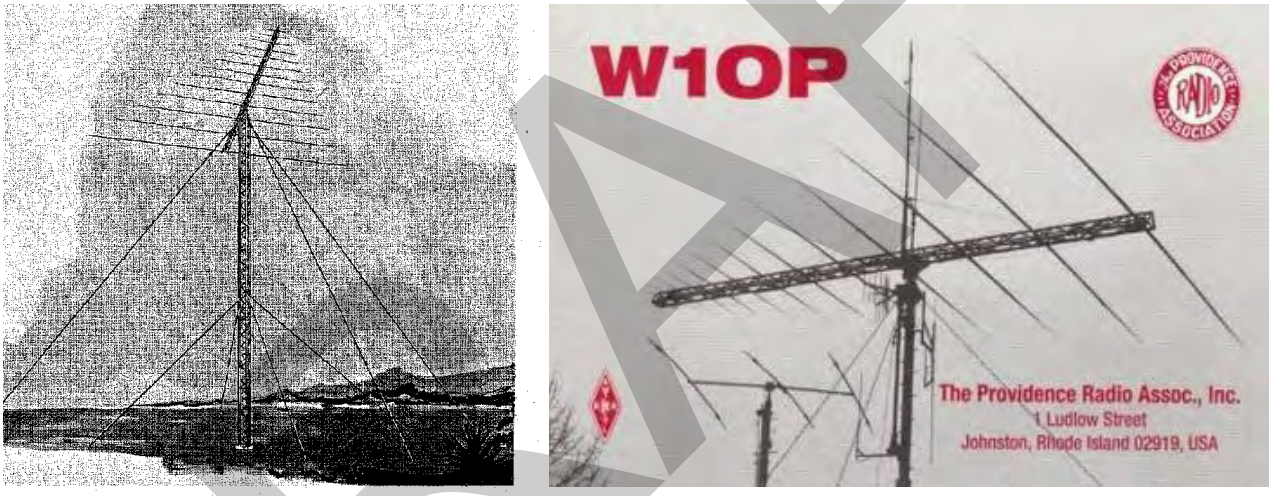
One description of Beavertail's antenna complex is the image it presented to a visiting envious ham radio operator.

"Wow….. I looked in awe over the acres of massive HF antennas. A row of 3 giant rotatable Collins 6-40MHz Log Periodic Dipole Arrays, half dozen huge 2-30 MHZ inverted discones each supported by a circle of ten 100-ft telephone poles, dozens of "smaller" 6-30MHz conical

monopoles, an impressive 2-30MHz fixed wire log periodic supported by a pair of 130-ft towers was located on the west side of the peninsula, and on the east side was the massive 600–ft NORD vertical."

Actually 25 antennas were in place on the Navy Communication Station complex and all were connected to one or more of the thirty or so transmitters.

Quantity	Antenna Type	Associated Transmitter Types
1	HLPA (Fixed Horizontally Polarized Log Periodic)	URT-19
8	Conical Monopole	URT-19, FRT-39, FRT-40
4	RLPA (3 Rotatable Log Periodic) (1 wire)	URT-19, FRT-39 FRT-40,
11	Inverted Discone	URT-19, FRT-39, FRT-40
1	NORD	FRT-72

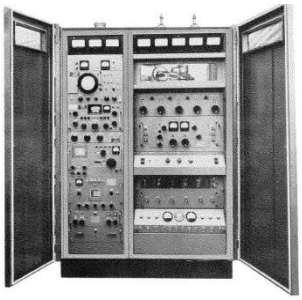


RLPA Collins 237B-1Rotatable Log Periodic Antennas
Left: Beavertail's antennas were pole or tower mounted. Right: A RLP Antenna rebuilt from Beavertail scrap and refurbished by the Providence Radio Association (W1OP). The rear element is over 70 ft in length.
Image courtesy of Rockwell-Collins history archive and W1OP's QSL card

The geographical bearings used to train the rotatable log periodic antennas toward their respective receiver locations were classified. While the beam width of the antennas providing forward gain by design were narrow, they remained broad enough to cover vast territorial sectors of geography over their intended direction.

Transmitters were located in the Transmitter Building. Several wings of cinder/concrete block were added to the building in the 1960s. The west wing contained eight of the TMC ten-kilowatt transmitters.

AN/URT-19
1KW 2-32mc



AN/FRT 39
10 KW 4-28mc

AN/FRT-40
40 KW 2-28 mc

Radio Traffic

The radio traffic transmitted was initiated by telephone lines and teletype from a number of sources including NAVCOMMSTA Newport, NAS Quonset, Sub Base New London and Newport Harbor Control. Coordination was required between those stations and Sachuest Point, Middletown. Transmission modes included multi-channel encrypted RATT (radio teletype), RAZZY (aircraft relay), GCA, SSB, voice and CW (Morse code) to aircraft, ships and naval bases. CW drills were common with Newport Harbor Control operating on 2 mc frequencies. With Quonset Point operating airborne ASW (Anti Submarine Warfare) patrols off the Atlantic coast, separate frequencies were used for discreet communication with patrol aircraft. Fleet Broadcast Teletype via lines from Navy Norfolk was routinely patched through to Beavertail for retransmission since the Beavertail site was superior for long distance transmission.

SUBTAC a circuit used by submarines for ship to shore communication was kept open and relayed as needed.

One of the more strategic classified services delegated to Beavertail was the relay of "Emergency Action Messages" (EAMs) from the "National Command Authority" (NCA). EAMs required delegated land-based communication stations to maintain the highest level availability of communications across the radio spectrum for encrypted networks to communicate with U.S. strategic forces world-wide. NCA also directed the Navy's airborne TACMAO (Take Charge and Move Out) fleet. During the Cold War TACMAO directed military commanders to undertake nuclear action against adversaries if authorized.

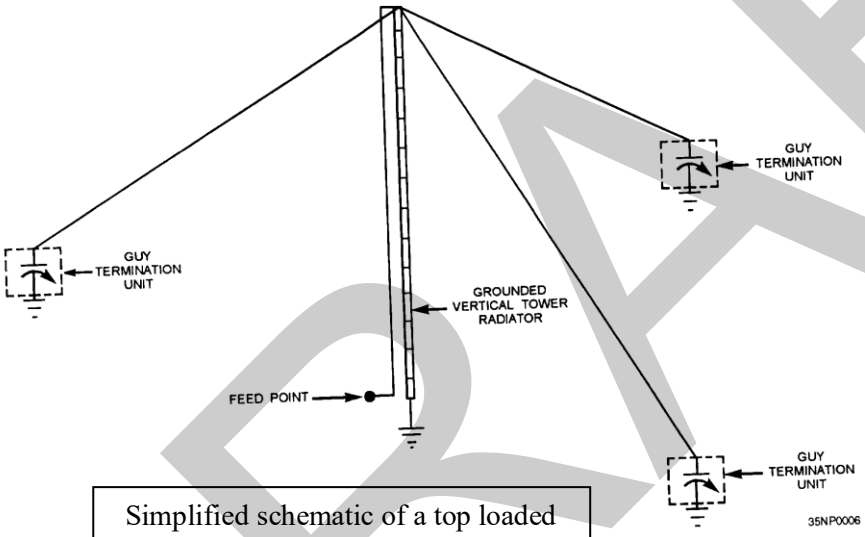
The NORD Antenna (1-Juliet) and FRT 72 Transmitter

By the 1960s the U.S. Navy's communications needs exploded. With an effort to create a 600-ship combat fleet, newer vessels including nuclear submarines remaining at sea for months at a time, required constant communications. The best frequencies for their use were in the low band ranges (below 520 kHz–1,610 kHz) of the commercial broadcast frequencies. Both VLF (Very Low Frequency 3-30 kHz) and LF (Low Frequency 30- 300 kHz) were best suited for this use. Unfortunately very large antennas were required at these low frequencies and as a result a top loaded configuration called the NORD antenna was adapted. The origin of the name NORD has

been lost, but believed to be an antenna design from a pirate broadcast station on a German freighter with a call sign "NORD"

Beavertail's NORD was an impressive antenna named "1-Juliet". It comprised a 654-ft high steel triangular lattice tower and a top loaded LF (low frequency) wire antenna. This design had three umbrella wire radiators extending from the top of the antenna down to ground level extending in a radius from the tower. The wires served both as radio signal antenna radiators and as the guy wires holding up the tower. *(Radio antennas are designed as a function of their wavelength mostly as a sub-multiple (1/8, 1/4, 1/2, etc.) of their wavelength. The physical dimensions of Beavertail's NORD antenna were miniscule compared to its radio frequency wavelength, which at the operating frequency of 128.65 kHz was 7,648 ft, almost 1½ miles in length.)*

The end of each umbrella wire was terminated at ground level into a "Guy Wire Termination Unit" which, if desired, could provide some directional characteristic to the antenna by controlling the phase angle, impedance and termination currents.



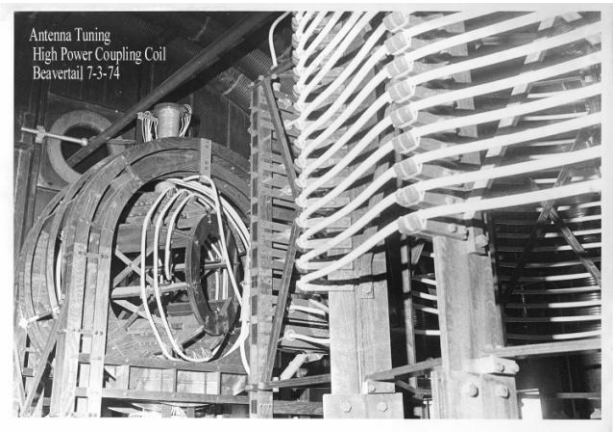
Simplified schematic of a top loaded NORD antenna.

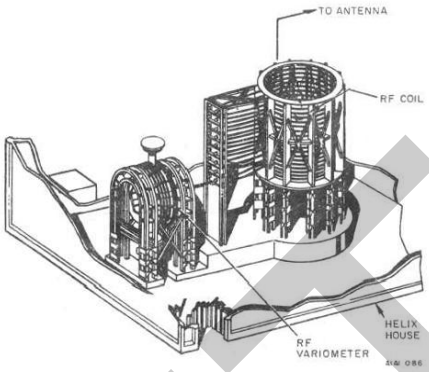
Beavertail NORD antenna with Beavertail Farm at top of image and HECP on west lower side of road. Helex hut is visible at the base of the antenna. Present Beavertail Road ends at the entrance of Beavertail State Park, now located half way between the farm house and HECP.

Photo courtesy of Anna Templeton-Cotill

Helix House

The antenna was fed through a large helix Variometer tuning coil located in a building at the base of the tower called the Helix House. The Variometer was used to tune the antenna and match the coaxial line (pipe) from the transmitter, which in turn was driven by two AN/FRT 50 kilowatt (combined output100 kW) transmitters located in the transmitter building bearing approximately 345 degrees North of the Helex House. The coaxial feed line (7 inch diameter copper pipe with a insulated center conductor pressurized with nitrogen) from the transmitter building was run completely underground, including Beavertail Road to the Helix House. The Helix House building and the HECP are the only communication structures still standing at Beavertail.





Typical Helix House configuration

Images courtesy of NRL photo files

The Quonset hut-looking building (Helix House) housed the large coupling coil shown above. This shielded building, which housed the coil, stands empty today. The antenna base is located behind the building, less than 20 feet away.

Photo by author 2011

Left: Coaxial cable exiting coupler building. Right: triangular concrete base of the 654-ft antenna tower next to the Helix House.

Photos by author 2011

The Helix House is a Quonset hut-shaped building containing the large Variometer (two coils, a stator and a rotor). High Q air wound inductor coils several feet in diameter were used to fine tune the 654-ft NORD top-loaded tower and match it to the metal coaxial pipe that fed the low frequency signal to the tower. The coaxial pipe was copper, the grounded outer pipe about seven inches diameter, the "center conductor" inner pipe which carried the radio energy from transmitter to tower was perhaps an inch or two in diameter.

Two of the earth anchors for the NORD antenna guy wires are still visible at Beavertail. They are located in radius from the concrete base of the tower out to the circumference of the radial of the tower. The most obvious of these anchors is located alongside and west of the road of the fourth public parking lot exiting Beavertail State Park, and the other is in the cleared area southeast of the helix coupler building and the concrete base.

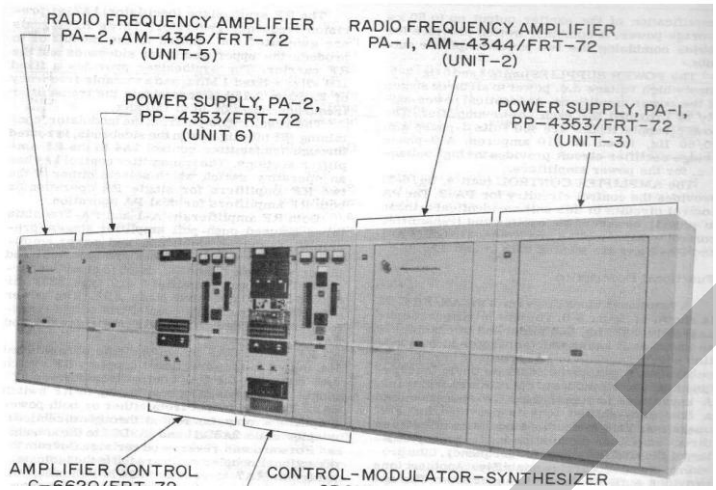
NORD antenna anchor base. The rod extending into the ground has either an earth screw or buried concrete block. The insulated radiator wire is shackled to the eye of the anchor.

Photo by author 2011

In the summer of 1968, on August 1, a day with low cloud cover and fog, a private Cessna 182H aircraft in route to Newport from Long Island, NY struck a guy wire of the tower and crashed. All three persons on board were killed. The aircraft came down north of the tower reportedly in a charred heap. The tower remained standing with only minor damage.

FRT 72 Transmitter

The AN/FRT-72 transmitter, a highly reliable low frequency transmitter, was fed to the NORD antenna via a low loss coaxial cable described above from its location in the South wing of the Transmitter Building. The cable ran underground to the helix coupler building, a distance over 2200 ft. The large diameter coaxial cable was actually a nonflexible copper pipe with an inner copper conductor supported by insulators in the center of the pipe to minimize RF losses. Each end of the pipe was terminated by a flexible section, this accommodated the adaptation necessary to exit and enter the building structures of the HECP and the helix coupler hut, and make the transition to the base of the tower.



Paul V. Zecchino worked at the Beavertail Communications site in 1972 as an engineer trainee and describes the following:

"The low frequency transmitter was an AN/FRT-72 built by Continental Electronics, still in business. (AN-FRT is military nomenclature meaning Army Navy specification, Fixed Radio Transmitter.)

The AN/FRT-72 consists of two identical fifty thousand watt transmitters combined to transmit one hundred thousand watts. Beavertail's FRT-72 transmitted on a frequency of 128.65 Kilohertz, below the AM broadcast and low frequency Beacon Band.

'72s remain in service today, as their typical robust Cold War design has no upward limit on service life, the thinking being entirely different during that not so long ago era. Two or three '72s today transmit continuous time signals which used to set millions of self-adjusting digital clocks, from the National Institute of Standards & Technology station WWVB located near Boulder, CO on a frequency of 60 Kilohertz.

Low frequency signals are less affected by atmospheric disturbances and reliably cover a radius of several hundred miles. John Robinson, station engineer and my boss, stated the Navy copied the 'Low Freq Broadcast' in California during daylight. Beavertail's ideal sited on elevated, albeit marshy, ground surrounded by the sea was ideal for long distance signal propagation.

The 128.65 KHz Low Freq Broadcast sounded like a 'buzz' on an AM radio. Navy de-multiplexers broke the buzzing down into component parts of eight teletype channels. Channels five thru eight usually duplicated channels one thru four, a redundancy known as channel diversity. It was employed to reduce if not eliminate transmission errors. Channels One and Five were said to be continuous weather text sent 'in the clear', i.e. unencrypted, while the other three were 'covered' (encrypted) messages broadcast to the fleet.

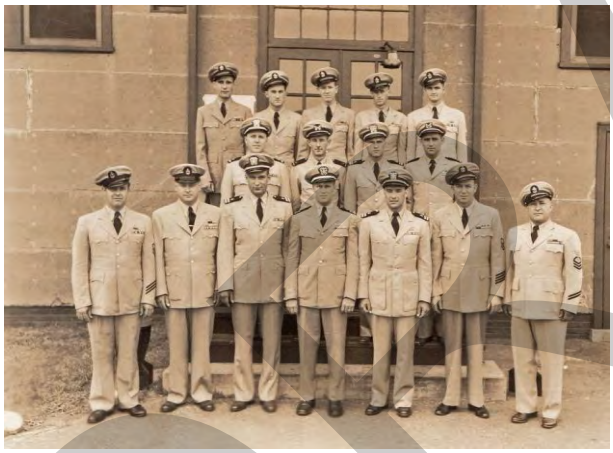
The low frequency NORD tower was 'top loaded', meaning its topmost 'capacity hat' guy wires were electrically connected to the top of the tower, from which they ran several hundred feet towards ground. Concrete insulators about six feet in length insulated them from the rest of the wire which connected to the ground. (Top Loading 'capacity hats' are used to electrically lengthen antennas to make them operate more efficiently at low frequencies.)"

Personnel

Limited information was found regarding personnel assigned to either Spraycliff or the Navy Communication Station. Local Jamestown residents and references by them added measurably to obtaining some first- hand information. A number of Jamestown residents either served or worked at the site. Names such as Jones, McGrath, Christman, Quattromani, McCarthy and Blair do show up in documentation and others most probably exist if not deceased. The 2003 visit to Jamestown by the four remaining members of World War II Navy Fight Squadron VN (N) 76 and their recorded experiences were enlightening and fortunately not lost.

James Osborne was assigned to the Navy Comm Station as a young RD3 from 1951 to 1953. He recollects that 36 personnel comprising radarmen, electronic technicians, radiomen, cooks and seaman guards were assigned to the station under the command of a Lieutenant. Civil Service employees staffed the power, water treatment/facilities and carpenter shop. Twenty four-hour Port and Starboard watch duty was the norm with one section getting a weekend on Thursday and Friday and the other section on Saturday and Sunday. Osborne also relates that the station's 36-inch carbon-arc searchlight was used to help lost pilots by pointing the light bean straight upward until spotted and then pointing it toward Quonset Point NAS.

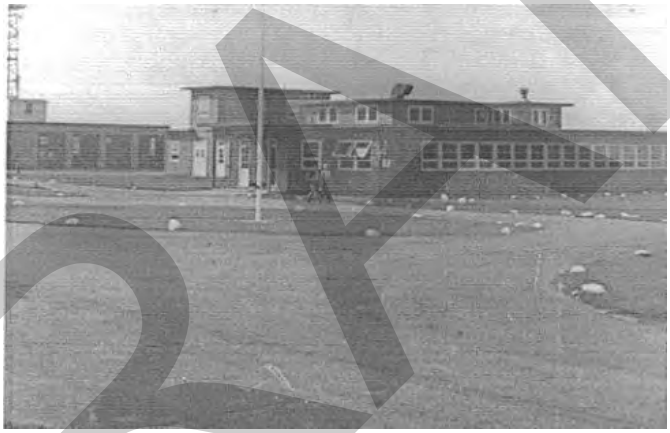
The photographs below provide supplement to the scarce base of data found during the research for this paper.



Officers and Chief Petty Officers 1949
Front row: Anderson BMC, Ring RMC, Verding LT, Gilette LTCDR, Ring LT, Young BMC
Second row: Purd ENS, Damn RELE, Jakes LT, Santos RELE
Back row: Berg EMC, Kistan RMC, Mott RDC, Blair RMC, Cio RMC
Photo courtesy of Alcina Blair

Navy Chief Petty Officers at Navy Communication Station Beavertail, Summer 1949
Front row L to R: Anderson BMC, Blair RDC, Ring RMC, Jily EMC, Young BMC
Back Row: Cio RMC, Mott RDC, Berg EMC, Kistan RMC
Photo courtesy of Alcina Blair

The Comm Station entrance gate was guarded by enlisted men. Date and names unknown.
Photo courtesy of James Osborne



Mess Hall
Photo courtesy of James Osborne

The last official military involvement of the Communications Station was in 1994. On 22 June 1994, members of the U.S. Corps of Engineers Site Investigation Team (SI) traveled to the former site. The primary purpose of the SI Team was to assess the presence and potential hazard of OEW (Ordinance and Explosive Waste) at the former Naval Communications Center. The inspection was limited to non-intrusive methods, e.g., subsurface sampling was not authorized or performed. No evidence of OEW was found.

Epilog

Although all military electronic operations were terminated in 1994, the Beavertail State Park from time to time is used for special Department of Defense military purposes such as short term test and evaluation of electronic systems. These activities require approval of the RI Department of Environmental Management. Most of these systems have portable data gathering components.

Today, the Department of Homeland Security operates a 24-hour surveillance surface search radar system and an optical adjunct on top of the tower adjacent to the HECP structure. The data collected are transmitted off site to a contractor for evaluation.

Ham radio operators frequently use Beavertail for various events. The Providence Radio Association (PRA) sets up operation every year during "Field Day" sponsored by the American Radio Relay League (ARRL). This is a competitive event held world wide during the fourth full weekend of June where radio operators demonstrate their emergency response capabilities by attempting to contact hams all over the world with portable equipment.

The Beavertail Lighthouse Museum Association, under the call sign W1BLMA, allows ham radio operators to broadcast from the light station grounds during the annual "International Lighthouse Weekend".

The light station also houses a VHF packet receiving station covering lower Narragansett Bay, Rhode Island Sound and Block Island Sound as part of the worldwide AIS (Automatic Information System) used for the identification and tracking of vessels.

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Discussions and Communications with Paul V. Zecchino

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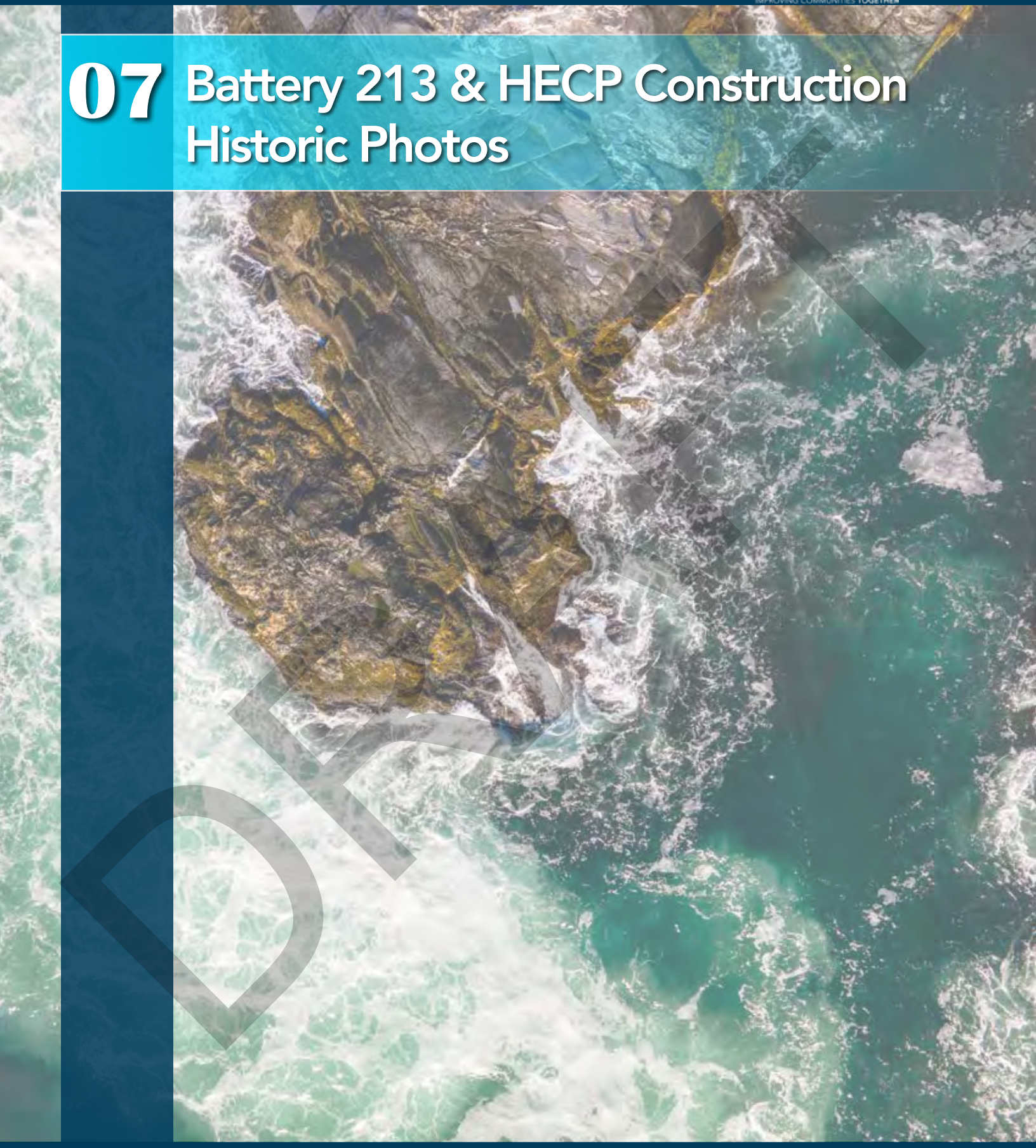
BETA
IMPROVING COMMUNITIES TOGETHER

07 Battery 213 & HECP Construction Historic Photos



Control Approval Symbol SPEKM-1

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS (BATTERIES)

SECRET

SPEKM-1

107483

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HARBOR DEFENSES OF Narragansett Bay

FORT Burnside, Beavertail Point, Rhode Island

BATTERY Construction No. 213 NO. OF GUNS 2

CALIBER 6-inch CARRIAGE Barbette

Part I Corrected to August 1944

GENERAL:

Battery commenced 19 February 1942
Battery completed 30 June 1943
Date of transfer 23 December 1943
Cost to date ~~07/31/1944~~ January $239,623. *
Materials of construction Reinforced Concrete & earth
Battery new or modernized New
(If modernized give detailed statement on reverse side)
Trunnion elevation in btry. 61.33
Datum plane Mean low water

UTILITIES:

WATER SUPPLY

Source of Commercial - Jamestown Water Co.
Alternate source None
Size of Main -

SEWER

Connected to sewer No
Type of Disposal Septic tank with outfall to ocean
Type of Latrine Gasproof within battery

*Includes heating system transferred 5 May 1944

UTILITIES (Cont'd.)

ELECTRIC POWER

Sources of Diesel/Electric Generators
Procured & installed by (OCE or ORD) ORD
Characteristics: Voltage 480 Ac or DC AC Phase 3
* No. of units and capacity 2 125 KVA ea.
Max. K.W. required for utilities 22 KVA
Max. K.W. required for non-battle conditions 13.5 KVA
Commercial power provided (yes or no) Yes Capacity 22.5 KVA
Auxiliary power unit provided (yes or no) No Capacity -
Type of lighting fixtures Commercial - vaporproof
Dehumidifying Unit..Make.and.capacity CARRIER; 3 ton
Rooms Wet or Dry Dry - Plotting room dehumidified
How ventilated Natural and vents with fans
How heated Power room, Hot water. Dehumidification, elec

DATA TRANSMISSION

Type Telephone

REMARKS

*Third unit not yet installed

ARMAMENT

Emplacement No.	Guns Cal.	Length	Model	Serial No.	Manufacturer	Mounted	Carriages Type	Model	Serial No.	Manufacturer	Motor
1	6 -inch	310.9"	1905	18	Watervliet	1943	BC	M1	62	York Mach. Co.	1-10hp
2	6-inch	310.9"	1905	25	Watervliet	1943	BC	M1	63	York Mach. Co.	1-10hp

ED Form A-162A
16 Sept. 1943.

FS-52, 796, 1523

SECRET

92-4882

DRAFT

Source: RIDEM - May 10, 2022

REPORT OF COMPLETED WORKS

BATTERY CONSTRUCTION - NO. 213

~~SECRET~~

HARBOR DEFENSES OF NARRAGANSETT BAY

FORT BURNSIDE, RHODE ISLAND

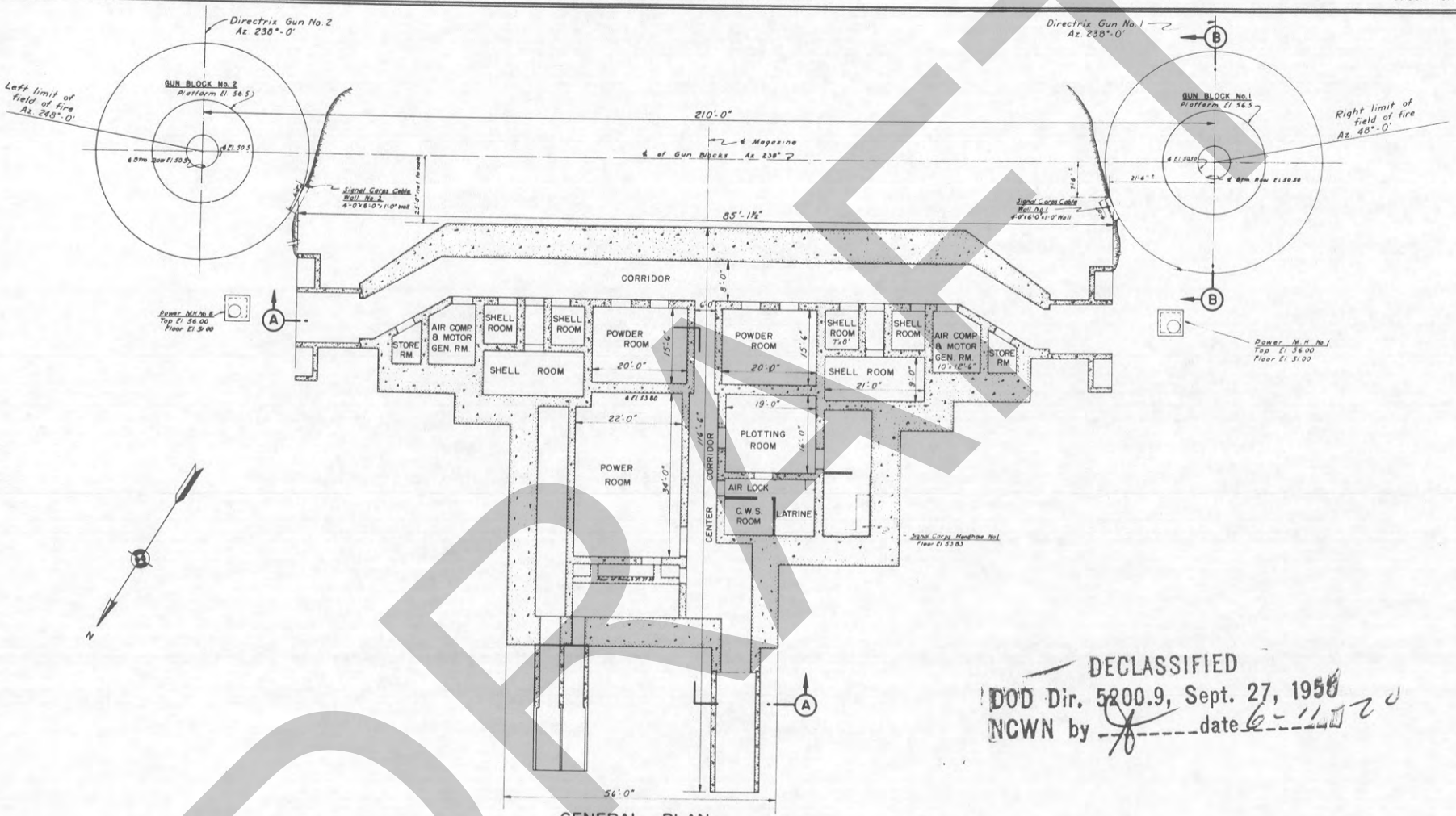
NO. OF GUNS 2 CALIBER 6" CARRIAGE BARBETTE

SCALE AS SHOWN

FORM 7

CORRECTED TO SEPTEMBER 1944

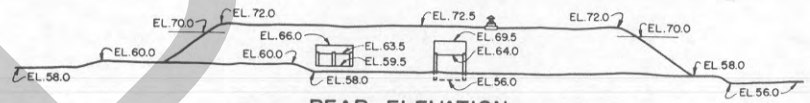
Sheet 1 of 2



GENERAL PLAN

SCALE IN FEET 10' 0 10' 20' 30' 40'

(Scale not in accord w/drwg)



REAR ELEVATION

SCALE IN FEET

~~SECRET~~

DECLASSIFIED
DOD Dir. 5200.9, Sept. 27, 1950
NCWN by ____ date 6-11-20

DRAFT

REPORT OF COMPLETED WORKS

BATTERY CONSTRUCTION - NO. 213

~~SECRET~~

HARBOR DEFENSES OF NARRAGANSETT BAY

FORT BURNSIDE, RHODE ISLAND

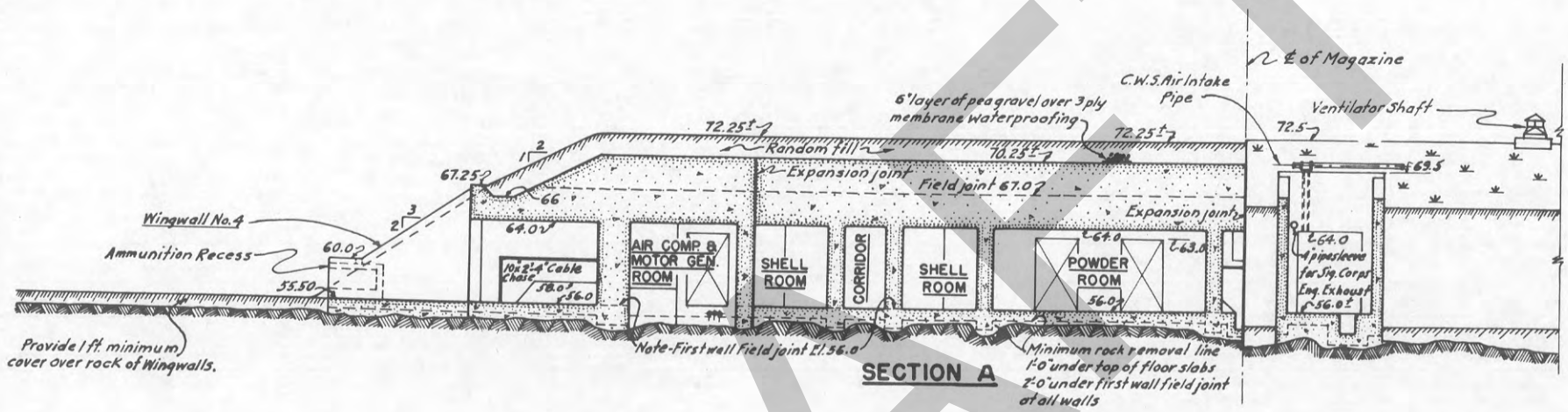
NO. GUNS - 2 - CALIBER 6" CARRIAGE BARBETTE

SCALE IN FEET

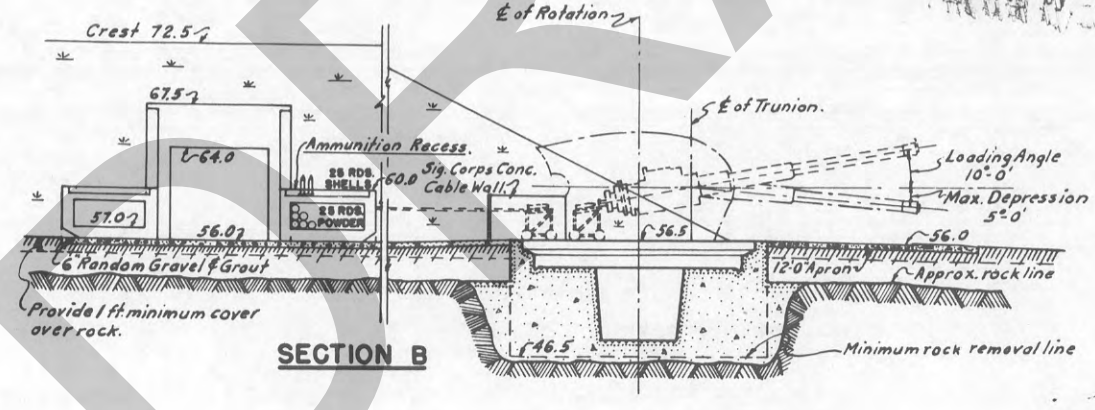
5' 0 5' 10' 15' 20'

FORM 7

CORRECTED TO SEPTEMBER 1944



SECTION A



SECTION B

~~SECRET~~

U.S. Engineer Office
Providence, R.I.

CONFIDENTIAL

BATTERY 213
BEAVER TAIL
RHODE ISLAND

No. 7
Magazine, Front View.
Dec. 18, 1942

U.S. Engineer Office
Providence, R.I.

CONFIDENTIAL
BATTERY 213
BEAVER TAIL
RHODE ISLAND

No. 8
Magazine, Right Entrance
Dec. 18, 1942

U.S. Engineer Office
Providence, R.I.

CONFIDENTIAL
BATTERY 213
BEAVER TAIL
RHODE ISLAND

No. 5
Magazine, Rear View,
Placing Forms.
Dec. 11, 1942

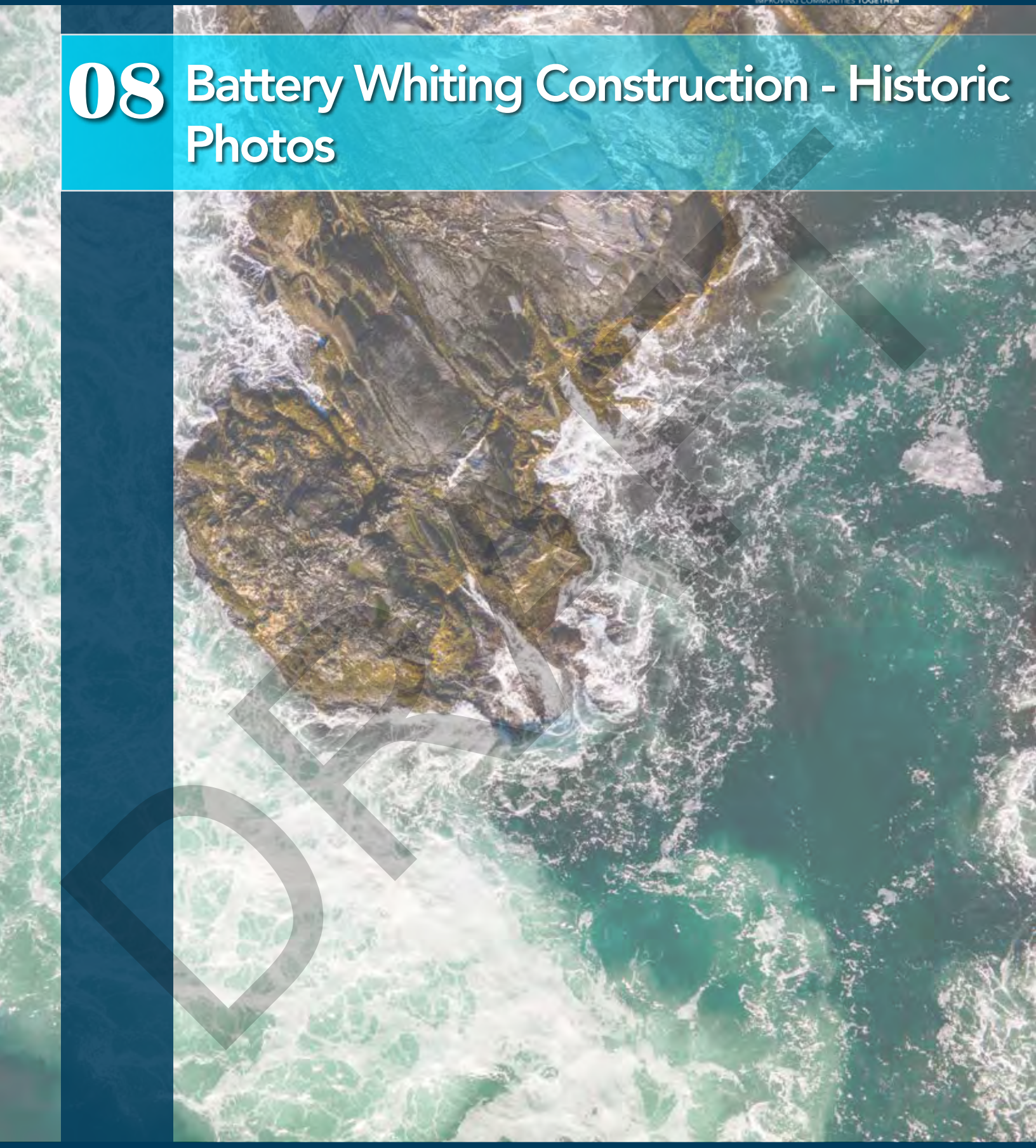
U.S. Engineer Office
Providence, R.I.

CONFIDENTIAL

BATTERY 213
BEAVER TAIL
RHODE ISLAND

No. 6
Magazine, Left Entrance.
Dec. 18, 1942

08 Battery Whiting Construction - Historic Photos



600.914 (E.D.C) CM 73030

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF Narragansett Bay, R.I.
~~FORT~~ .....Beavertail Pt., R.I. (Burnside).....
BATTERY ..Whiting.....
No. of guns 2 Caliber 3" RF Carriage Barbette

Form 1 Corrected to November 30, 1942

GENERAL:

Battery commenced May 5, 1942
Battery completed Sept. 15, 1942
Date of transfer August 29, 1942
Cost to date of transfer $30,980
Materials of construction Concrete
Type of cement Class A

WATER AND SEWER:

Connected to water supply Yes
Connected to sewer Yes
Type of latrine In Magazine

Trunnion elevation in btry. #1= 40.95 : #2= 41.00
Datum plane MLW

73030

ELECTRIC CURRENT:

Sources of Commercial

Max. kw. required for lights 0.40
Max. kw. required for motors None

Present condition of battery New
Rooms wet or dry Dry

How ventilated —
Type of data transmission Telephone (vocal to guns)

Remarks

ARMAMENT

Emplacement or mortar No.	Guns or Mortars: Cal.	length	model	Serial No.	Manufacturer	mounted	Carriages: Type	model	Serial No.	Manufacturer	Motor
1	3"	12.5'	1903	34	(Watervliet Arsenal)	1908	Barb.	1903	31	(Am. & Brit. Mfg. Co.)	None
2	3"	12.5'	1903	43	do	1908	Barb.	1903	32	do	None

HOISTS

Emplacement Number	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
1	None									
2										

REPORT OF COMPLETED WORKS

BATTERY PLAN

HARBOR DEFENSES OF NARRAGANSETT BAY

BEAVERTAIL POINT, R. I.

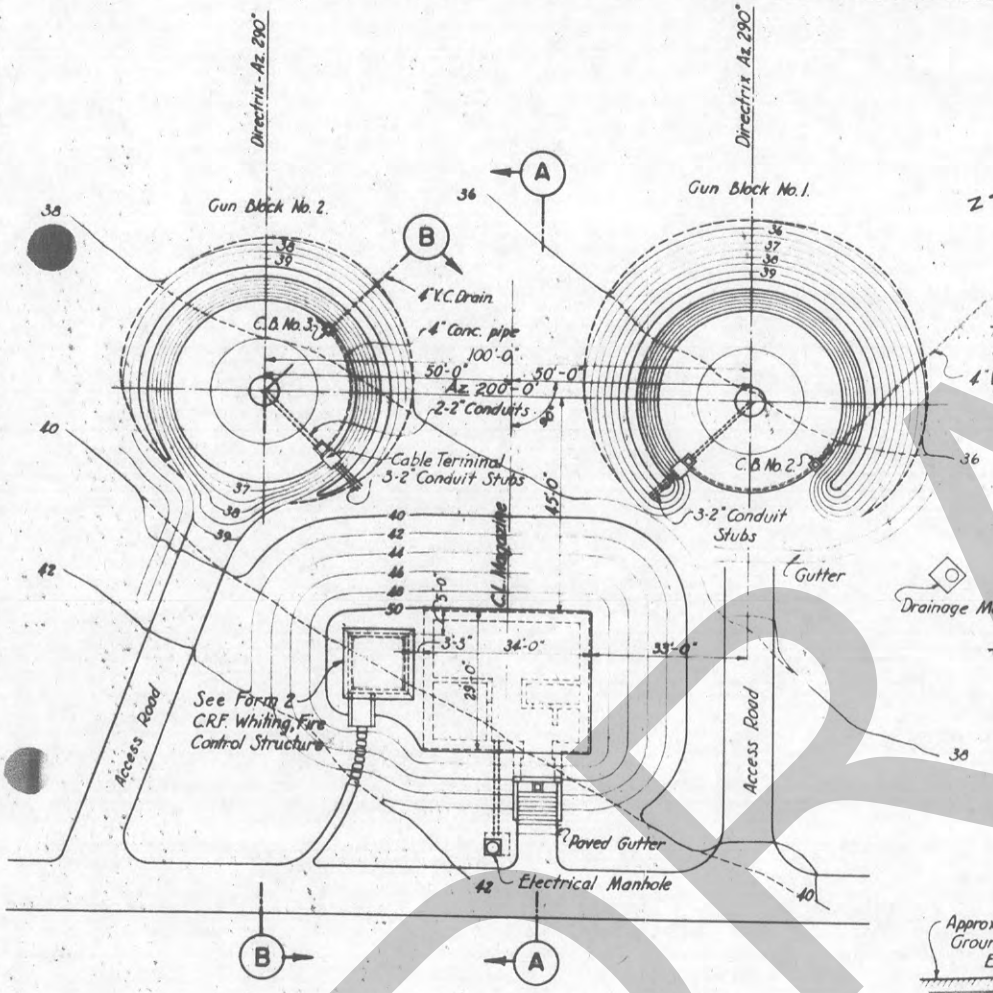
BATTERY WHITING

No. of guns, 2 — Caliber, 3" R.F. Carriage, Barbette

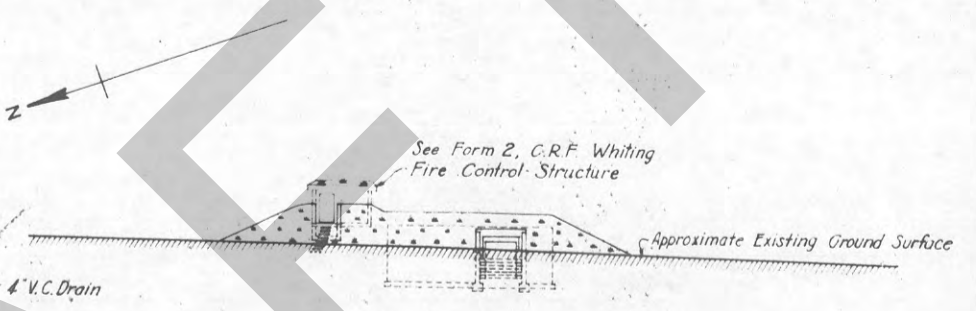
20' 0' 20' 40' 60' 80' 100' 120' 140'

FORM 7

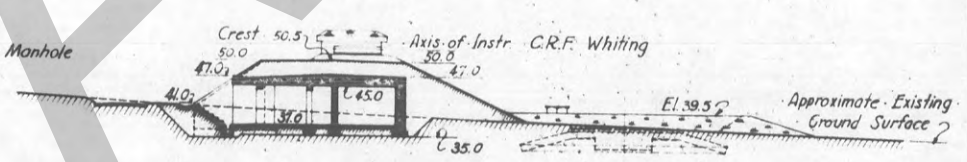
CORRECTED TO NOVEMBER 1942



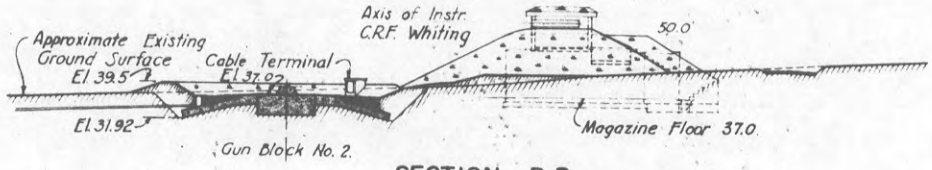
PLAN



REAR ELEVATION OF MAGAZINE



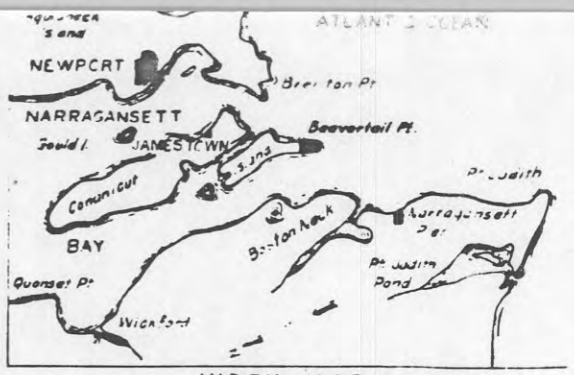
SECTION A.A.



SECTION B.B.

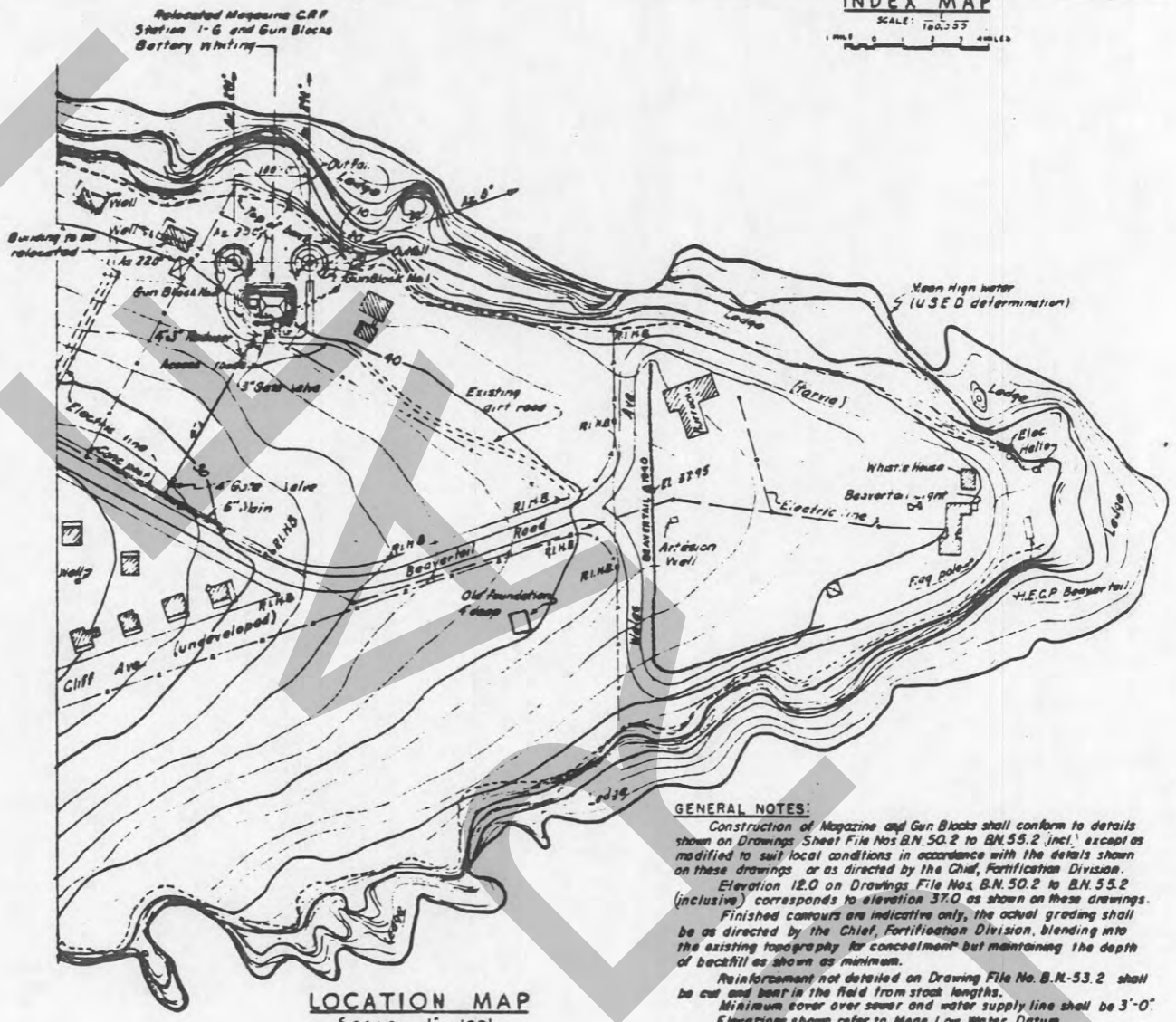
Elevations refer to Mean Low Water Datum

WHITING



INDEX MAP

SCALE: 1:80,000



LOCATION MAP

SCALE: 1" = 100'

GENERAL NOTES:

Construction of Magazine and Gun Blocks shall conform to details shown on Drawings Sheet File Nos. B.N. 50.2 to B.N. 55.2 incl. except as modified to suit local conditions in accordance with the details shown on these drawings or as directed by the Chief, Fortification Division.

Elevation 12.0 on Drawings File Nos. B.N. 50.2 to B.N. 55.2 (inclusive) corresponds to elevation 37.0 as shown on these drawings.

Finished contours are indicative only, the actual grading shall be as directed by the Chief, Fortification Division, blending into the existing topography for concealment but maintaining the depth of backfill as shown as minimum.

Reinforcement not detailed on Drawing File No. B.N-53.2 shall be cut and bent in the field from stock lengths.

Minimum cover over sewer and water supply line shall be 3'-0".

Elevations shown refer to Mean Low Water Datum.

AS-BUILT DRAWING
DECEMBER, 1943

E. W. GARBISCH
LT. COL. CORPS OF ENGINEERS
DISTRICT ENGINEER

INDEX TO DRAWINGS

SHEET NO.	TITLE	FILE NO.
1.	GENERAL LAYOUT AND MAGAZINE DETAILS	BT-10.1
2.	GUN BLOCKS AND MISCELLANEOUS DETAILS	BT-11.1
3.	GENERAL LAYOUT	BN-50.2
4.	FOOTING AND WALL DETAILS	BN-51.2
5.	ROOF, FLOOR AND GUN BLOCK DETAILS	BN-52.2
6.	BAR LIST	BN-53.2
7.	DOOR DETAILS	BN-54.2
8.	DRAINAGE, PLUMBING & ELECTRICAL DETAILS	BN-55.2
9.	GENERAL DETAILS NO. 2	BN-4.2
10.	GUN BLOCKS, SEPTIC TANK & MANHOLE DETAILS	BN-6.2

NOTE:

For Sheets Nos. 50.2 to 55.2 inclusive see Battery Armistead

For Sheets BN-4.2 and BN-6.2 see Battery House.

TRANSFER DRAWINGS

HARBOR DEFENSES OF NARRAGANSETT BAY

RELOCATION OF BATTERY WHITING

MAGAZINE AND GUN BLOCKS

GENERAL LAYOUT AND MAGAZINE DETAILS

FORT BURNSIDE RHODE ISLAND

IN 10 SHEETS SCALE: AS SHOWN SHEET NO. 1

U. S. ENGINEER OFFICE, PROVIDENCE, R. I. APRIL 1942

SUBMITTED	APPROVAL RECOMMENDED	APPROVED
M.D. Kirkpatrick, ENGINEER	N.W. Honer, DISTRICT ENGINEER, CHIEF, FORTIFICATION DIVISION	H.S. Bishop Jr., COLONEL, CORPS OF ENGINEERS, DISTRICT ENGINEER

DESIGNED H.S. Harris Jr., JUNIOR ENGINEER
DRAWN BY A.A.S.
TRACED BY
CHECKED BY A.A.S.

FILE NO. BT-10.1

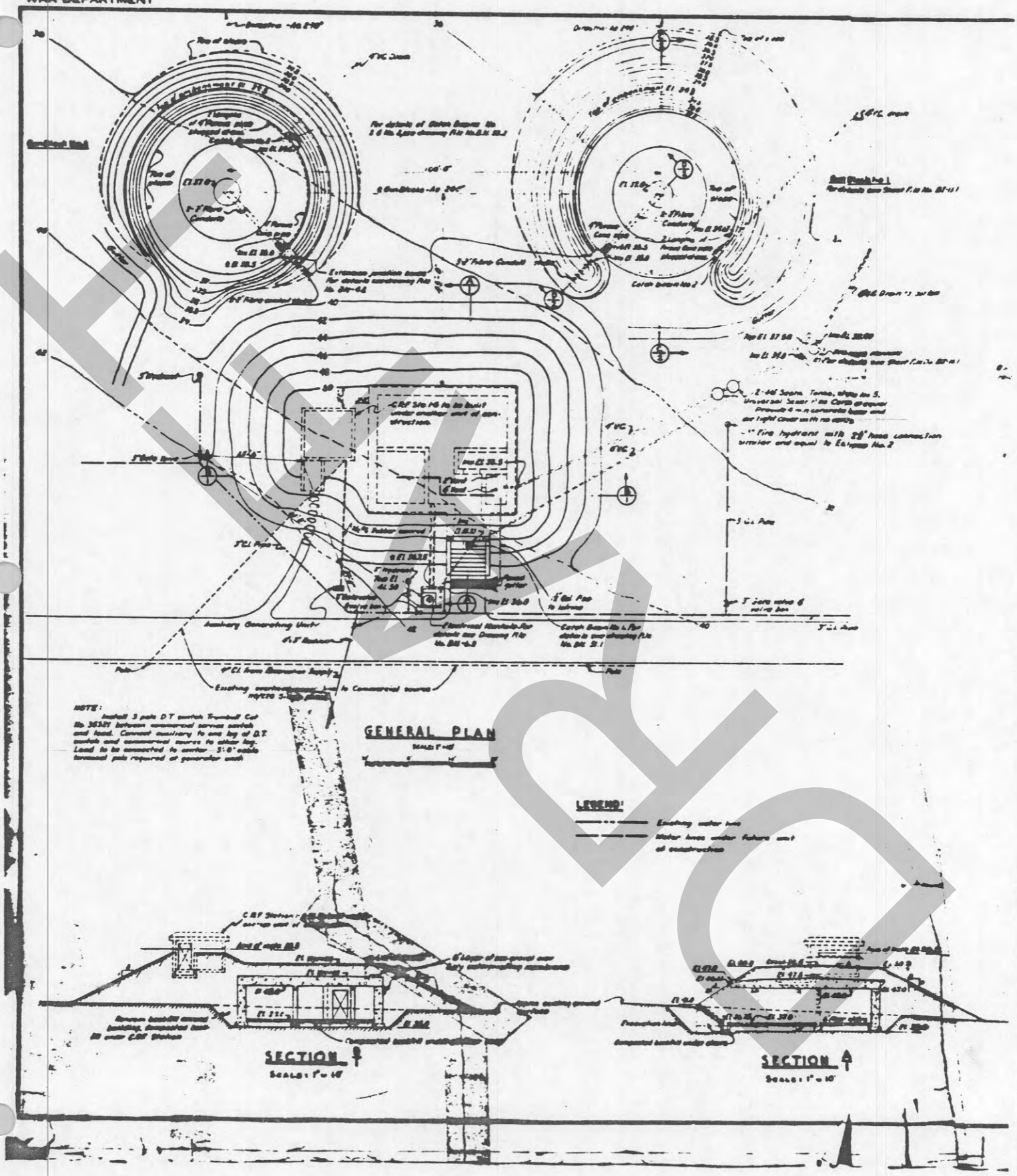
REVISION	BY	AP. BY	DATE
Power added	K.B.		

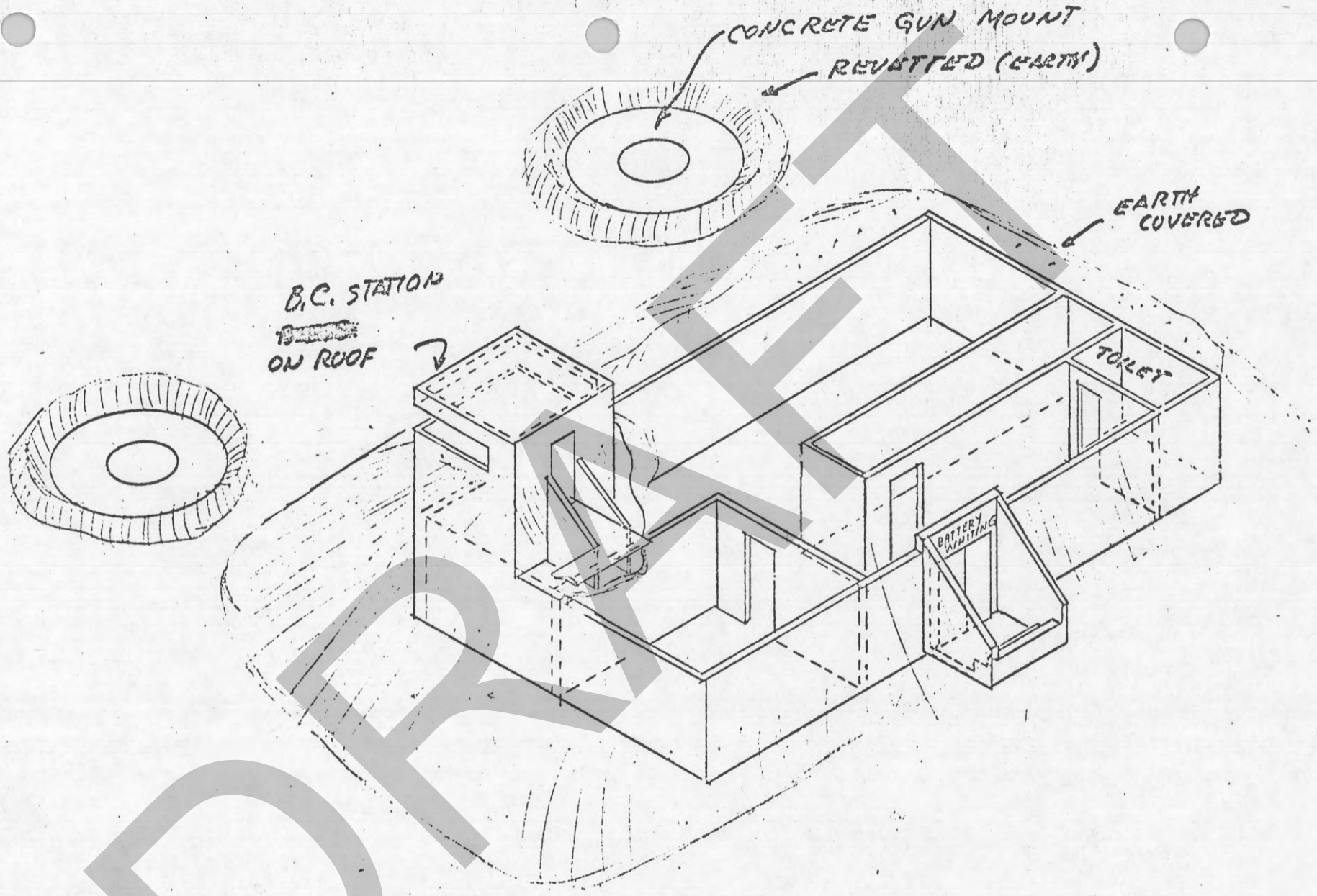
Tracing Vecsir Robertson & Adams. (Dec. 1943)

PWD 10439-111

WHITING

WAR DEPARTMENT





BATTERY WHITING @ FORT BURNSIDE, R.I. (2-3" GUNS FROM FORT GREBLE, R.I.)

WORLD WAR TWO INSTALLATION

BASED ON INSPECTION SEPT 1976, E.R & R.M. JERUE

600.914 (1st S.C.) CM 74119

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(FIRE CONTROL OR SUBMARINE MINE STRUCTURES)

HARBOR DEFENSES OF NARRAGANSETT BAY
FORT BURNSIDE, BEAVERTAIL PT, R.I.
STRUCTURE BC & CRF WHITING
(Structure ~~I-G~~) I-D

Part II Corrected to DECEMBER 1943

STRUCTURE:
Location (by coordinates) x To be determined by USC & GS
Location (by coordinates) y
Location (by site description) Left Side Btry Whiting
Date of transfer December 1943
Cost to that date $ 3,080
Type (for observing stat.--tower, dug-in, cottage, etc.) Modified Manhole Type with
Type of construction wingwalls & door in wall
(a) Roof Concrete - earth cover
(b) Remainder of bldg. Concrete
How concealed Earth cover
How protected " "
Height above concealment Not applicable
Height above protection " "
Conspicuous at _____ yards Not conspicuous

INSTRUMENTS & EQUIPMENT:
Type of observing inst. 9' CRF
Type of plotting board None

DATA TRANSMISSION:
Type Telephone
Date of transfer (by Signal Corps)

TIDE STATION:
Give description of tide gauge - - -

DATUM POINTS:
Give Forts from which visible - - -

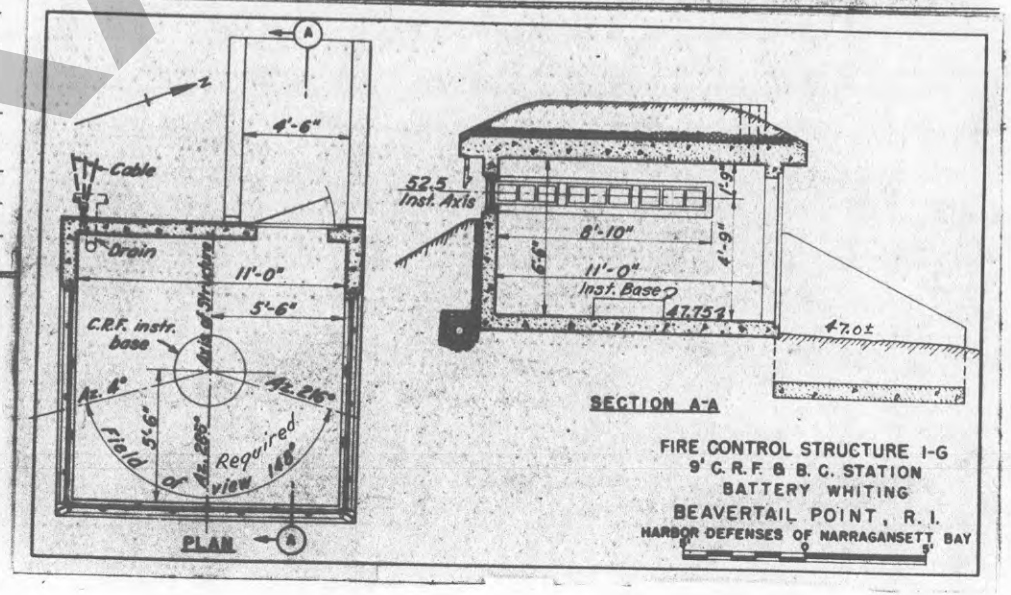
QUARTERS:
Give stations served - - -

UTILITIES:
Electric Power Commercial & Aux. Gas & Elec. Gen.
Source of Newport Electric Co. & Aux. Generator
Characteristics: Voltage 110 Ac or ~~DC~~ Phase Single
Kilowatts required 0.2
Type of lighting fixtures Conduit - Vaportight
Heat
Iow heated None
Water Sewer
Connected to water mains No
Connected to sewer No
Type latrine None

REFERENCE: MEAN LOW WATER
Reference of site 51' above Mean Low Water
Reference of instrument axis 52.5' above Mean Low Water
(Type and Capacity of Crane None
(Max. dia. of reel handled "

where applicable

Superseded — See Form II corrected to Jan 44



ED Form A-162B
16 Sept. 1943.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(FIRE CONTROL OR SUBMARINE MINE STRUCTURES)

HARBOR DEFENSES OF NARRAGANSETT BAY
FORT BURNSIDE, BEAVERTAIL PT. R.I.
STRUCTURE BC & CRF WHITING
(Structure ~~1-G~~ 1-D

Part II Corrected to JANUARY 1944

STRUCTURE:
Location (by coordinates) x To be determined by USC & GS
Location (by coordinates) y
Location (by site description) Left Side Btry Whiting
Date of transfer December 1943
Cost to that date $ 3,080
Type (for observing stat.--tower, dug-in, cottage, etc.) Modified Manhole Type with wingwalls & door in wall
Type of construction
(a) Roof Concrete - earth cover
(b) Remainder of bldg. Concrete
How concealed Earth cover
How protected Reinforced Concrete Splinterproof
Height above concealment 0
Height above protection 0
Conspicuous at ____ yards Not conspicuous

UTILITIES:
Electric Power Commercial & Aux. Gas - Elec. Gen.
Source of Newport Electric Co. & Aux. Generator
Characteristics: Voltage 110 Ac or ~~DC~~ Phase Single
Kilowatts required 0.2
Type of lighting fixtures Conduiet - Vaportight
Heat
How heated None
Water Sewer
Connected to water mains No
Connected to sewer No
Type latrine None

REFERENCE: MEAN LOW WATER
Reference of site 51' ± above Mean Low Water
Reference of instrument axis 52.5' ± above Mean Low Water
where applicable (Type and Capacity of Crane None
(Max. dia. of reel handled "

INSTRUMENTS & EQUIPMENT:
Type of observing inst. 9' CRF
Type of plotting board None

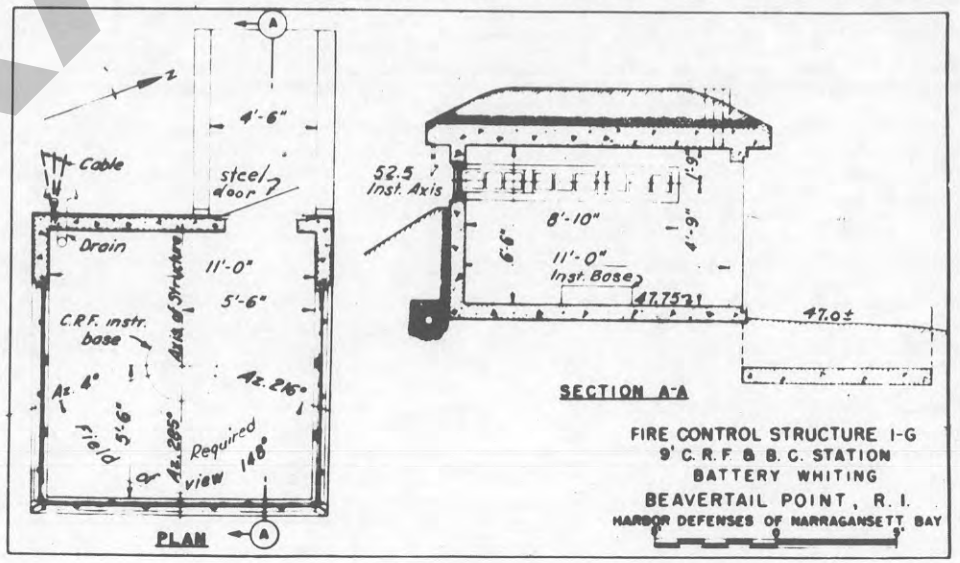
DATA TRANSMISSION:
Type Telephone
Date of transfer (by Signal Corps)

TIDE STATION:
Give description of tide gauge - - -

DATUM POINTS:
Give Forts from which visible - - -

QUARTERS:
Give stations served - - -

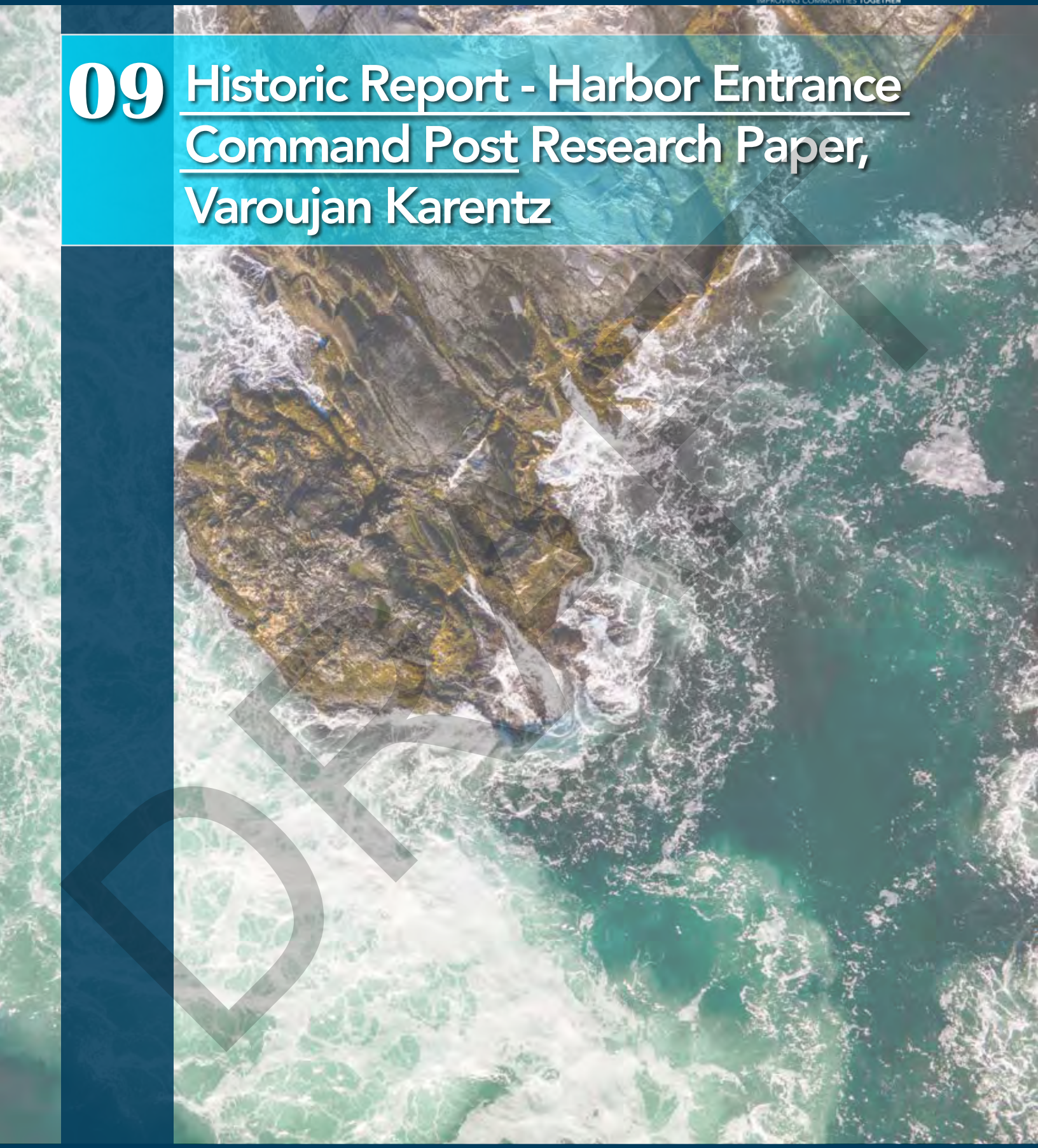
(Use reverse side if applicable)



ED Form A-162B
16 Sept. 1943.

BETA
IMPROVING COMMUNITIES TOGETHER

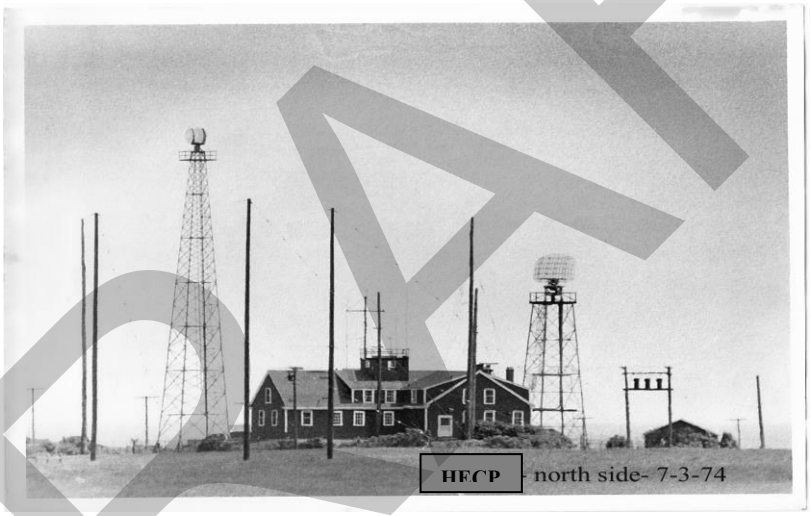
09 Historic Report - Harbor Entrance Command Post Research Paper, Varoujan Karentz



Harbor Entrance Command Post

The HECP at Fort Burnside

Beavertail Point
Conanicut Island
Jamestown, RI



Jamestown Historical Society
Varoujan Karentz
April 2000

The Harbor Entrance Command Post

Fort Burnside - Beavertail Pt. Jamestown, RI

(A study, by Varoujan Karentz. April 2000 for the Jamestown Historical Society)

The configurations and types of military defenses around Narragansett Bay during World War II are covered in the book " The Defenses of Narragansett Bay" by Walter K. Schroder. While this paper concerns The Harbor Entrance Command Post, it is necessary to include descriptions of the defense posture and related systems to understand the role of the Command Post. Therefore, the substantial reference material provided by Mr. Schroder and excerpts from his book are included in this paper in addition to other material that was researched. Resources from the National Archives, The Coastal Defense Study Group, Fort Tilden Archives, US Army Corps of Engineers and individual historians including personnel who served at the Command Post have also been included.

World War II created much concern about the protection of the numerous military facilities located in Narragansett Bay. Ship movements through the both the East and West passages required surveillance and control. Beavertail Point on Conanicut Island which looked over both passages provided the ideal location to detect and control ship passage, monitor possible undersea penetration by enemy submarines and communicate surveillance status to joint Army/Navy defense installations as far north as Boston. Although some facilities of the US Army's Rhode Island National Guard's 243rd Coast Artillery previously existed on this site, it was on 4 December 1941, three days before the Japanese attack on Pearl Harbor that the southern portion of Beavertail was officially named Fort Burnside.

This paper will concentrate on the command post at Fort Burnside known as the "HECP" (Harbor Entrance Command Post) and how it operated. There are references in certain documents that identify the facility synonymously as the Harbor Entrance *Control* Post. Assigned military personnel in preference to the HECP acronym referred to the building as the "*Hiccup*" The building is the only significant World War II vintage military structure on Beavertail visible above ground, although two earth covered battery magazines remain. The HECP is easily recognized as one enters Beavertail State Park with its prominent radio mast/poles and two radar towers on either side of the structure.

HECP Mission Statement

According to the **US Army Coastal Defense Doctrine**, the function of the HECP is**: *"to collect and disseminate information of activities in the defensive sea area, to control unescorted commercial shipping in the defensive coastal area, and to take prompt and decisive action to operate the elements of the harbor and coastal defenses, in order to deny enemy action within the defensive coastal area".***

*For the **Navy**, the **Chief of Naval Operations** issued an operative order. The following 1946 post war directive states the mission requirement.*

"The mission of the HECP is to coordinate and control both the action of' the elements of harbor defense and the movements of vessels in the harbor approaches in the preservation of the security of the harbor.

HECP is a joint Army and Navy command post and a communication center. It receives information from all available sources, evaluates this information and decides on appropriate offensive and defensive action. The joint Army and Navy watch at HECP receives information from expert detection and observation stations as transmitted by radio, visual signal and wire. The HECP watch is trained to interpret this information and to order immediate defensive action.

(*a*) To challenge all ships approaching the harbor entrance and to prevent the entry of any unidentified vessel on the assumption that it may be enemy.

(b) To control the movement of vessels in the harbor entrance in the interests of mutual safety.

(*c*) To receive from the port director up-to-date information on anticipated arrivals and departures for reference in establishing identity of ships and in anticipating traffic control problems.

(*d*) To receive from the harbor detection station information concerning indications of the presence of vessels in the detection area for evaluation to determine their character and identity.

(e) To receive from the surface detection radar station information concerning indications of the presence of surface vessels in the approaches of the harbor.

(f) To pass to patrol vessels all pertinent information which they will require for close investigation of suspicious circumstances.

(g) To direct patrol vessels to investigate any suspicious circumstances and take offensive action if appropriate.

(*h*) To control traffic in the harbor and its approaches during an attack.

(i) To order the arming of defensive minefields planted in the harbor entrance.

(*j*) To order the closing of net gates and insure the observance of an adequate net patrol policy.

(*k*) To pass to the base operations office information concerning suspicious circumstances and to recommend the use of hunter-killer tactics, smoke, minesweepers, and fleet units in the preservation of a secure harbor and safe approaches.

(*l*) To order the examination battery to fire a round across the bow or to fire for effect on any suspicious vessel or any vessel held in suspicion by her actions or failure to identify herself.

(*m*) To recommend that coastal batteries open fire on vessels held to be enemy by her actions or inability to identify herself.

(*n*) To request that searchlight batteries flood areas suspected of containing unidentified vessels."

World War II Preparations

On 27 June 1940-President Franklin D. Roosevelt invoked the Espionage Act of 1917 to govern the anchorage and movement of all vessels in United States waters and to protect vessels, harbors and waters of the United States. This was the beginning of port security activities in World War II.

Then on October 2nd 1941, just prior to the United States entering World War II, Secretary of War Henry Stimson directed the Eastern, Western and Southern Defense Commands to plan HEPC deployments for the protection of strategic harbors and prepare specific mission requirements for each area. Seventeen key locations in the continental United States, including Narragansett Bay, were selected. By 20 December 1941, he issued orders placing all HEPCs on a war basis. Joint Army and Navy plans were prepared and executed. There were 4 categories of HECPs defined, A, B, C and D. Only one other site besides Narragansett Bay was designated an "A," signifying the highest level of mission complexity. In addition to the control of shipping and harbor surveillance, the HECP at Beavertail was also tasked with maintaining a navigable entrance to Narragansett Bay by preventing enemy ships from laying mines or scuttling themselves to block the harbor entrance and to ward off Axis motor torpedo boats.

Fort Burnside was established through the acquisition of 185.22 acres of land by condemnation in 1942-43 and by fee which was not paid until 1965, (20 years after the war). On 14 August 1942, the Navy acquired 88.55 acres through the power of eminent domain from the Joseph Wharton Estate, et. al. Also, between the years of 1942 and 1943, additional acres were acquired by condemnation from several other private owners including Sydney L. and Catharine M. Wright. Geographically, Fort Burnside was located exactly within the present boundaries of Beavertail State Park.

Operational Scenario

There were many rules and detailed procedures established to insure proper recognition of either military warship or merchant ship and its entry into Narrgansett Bay. The level of coordination, training and plans can only be underestimated. Any unexpected arrivals, unusual features of ship superstructure, crew appearance, delayed arrival, incorrect signals all contributed to concern of enemy deception. “Suspicious Vessel” rules and procedures were extensive and detailed. Gun batteries were trained immediately on a suspect vessel, and the vessel was ordered to stop until an examining officer boarded, removed all doubt, and notified the HECP.

When an unidentified vessel entered the defensive area, the HECP would direct a visual challenge by flashing signal light or signal flags. If an immediate response to the proper code were not received, the HECP was tasked to organize offensive measures to attack the threat. If the surveillance radar indicated that a surface ship was approaching at night, the area was to be illuminated with searchlights, and a warning shot could be fired from the "examination" coastal gun battery. If the intruder failed to stop, other batteries could open fire, sinking the ship if necessary. If the intruder did stop, a patrol vessel could be dispatched to investigate.

If the undersea magnetic detection equipment detected the unidentified vessel and no surface ship was detected by visual means or radar, a submarine was presumed to be attempting to penetrate Narragansett Bay. Any friendly vessels approaching Narragansett Bay would be advised to stay clear of the harbor. Patrol boats would be notified, the submarine net gates would remain closed and minefields would be activated from the “safe” position.

For purpose of additional validation and confirmation regarding the identity of targets, the HECP was provided with ship and aircraft recognition books and tables including “Jane's All the Worlds Fighting Ships and Aircraft” and “Lloyds Register of Ships”.

All land communications to various defense command locations from and to the HECP were conducted by a network of landline telephones, backed up by two-way radio equipment. Flashing light and flag signals were used to communicate with ships as necessary.

Beavertail HECP

As part of the early “Seaward Defense” of Narrgansett Bay, Prospect Hill (the highest point on Beavertail) was the original location of observation posts for various gun batteries and mine commands on Conanicut Island as well as secondary observation posts for other batteries on the Narrgansett shore. These posts, other than an early mine command casemate were abandoned immediately after the start of the war when it was determined that observation posts located at Ft. Getty and Ft. Wetherill gave as good or better coverage. It was the need to provide ship traffic control that placed artillery observers back at the entrance of Narrgansett Bay co-located with HECP functions.

Early in the war (1941-1942), a joint Army-Navy defense team first constructed a wooden observation shack, 12 by 30 feet. It was located south of the present Beavertail Lighthouse beyond the road on the rock ledge and about seventy-five feet west from the base of the original Beavertail light and most probably on the location where the previous lighthouse whistle building was situated. Subsequently, a second observation post was built north of the Lighthouse to command the entrance to the West Passage. Those two command/observation posts remained in operation until 1 July of 1943 when the HECP constructed by the U.S. Army was completed and occupied. The structure was identified as " Bombproof Cottage C-1". Location coordinates (confirmed by GPS) are Latitude 41-27`.27 N, Longitude 71-23`.85W. The axis of the new structure was aligned at 335 degrees from true north which placed the 1st and 2nd floor viewing ports favoring the entrance to the East Passage although the field of view centered on the extremes of the land masses on either side.

The cost of the total facility was budgeted at $107,720. This amount represented over 10 percent of the War Departments budget for construction of new HECPs and was the highest cost of any HECP to be constructed during the war period.

Underwater and surface surveillance and tracking systems, supplemented with radios, visual signaling devices, and telephones were operated within the HECP by nine officers and 40 enlisted men during the peak period in the summer of 1943. It was the responsibility of the HECP and its duty officer to guide friendly vessels safely in and out of the east passage and to detect any enemy attempt to penetrate Narragansett Bay. Directives from the War Department required that the HECP have both an Army and a Navy officer on watch during all shifts.

Battery Whiting, with two 3-inch guns, was relocated from Fort Getty to Fort Burnside during the summer of 1942, after construction of a new magazine and gun platforms was completed. The battery was on the eastern perimeter of the enclave facing Brenton Point across the bay. Battery Whiting guarded and protected the mines in the East Passage. The battery had a secondary mission as an anti-motor torpedo boat battery (AMTB) and as the examination battery, prepared to fire a warning shot across the bow of any vessel that did not comply with the instructions from the HECP. Three 3-inch and 90 mm gun batteries also defended against torpedo boats. Three other gun batteries, "AMTB 1, 2 and 3" located at Fort Varnum on Narragansett, Fort Getty and Fort Wetherill also provided anti-motor torpedo boat protection.

The HECP coordinated the harbor defenses, identifying targets recommending them to specific gun batteries. Observers and spotters for some of the batteries were located on the 2nd level of the HECP and were provided with optical range and azimuth instruments. Later, radar bearing and range information supplemented the visual observers, especially during periods of poor visibility.

The HECP as it appeared in a 1980 photo.

Built during World War II it was in operation from 1943 to 1945. An SCR-582 radar was originally installed on the upper deck.

The tower with an AN/SPN-6 radar, the signal mast and the HF antenna poles as shown in the photo were installed when the facility was in use as an USN Signal and training Station after July of 1945.

Building Configuration and Operation

The two story 24-room HECP building was constructed of reinforced concrete, in some sections as much as 3 ft thick. Its footprint measures 69 ft across the base by 53 ft 6 inches. "Cottage C1" was actually a bomb-proof bunker. The concept was to have the HECP look like a farmhouse, complete at one time with grazing livestock. It was described in engineering drawings as "non conspicuous." The exterior was decorated with stucco, wood trim, false porches with wood railings, and cedar shingles. On the north side three false windows with wood trim are painted on the concrete wall of the radio room. A series of rectangular viewing ports with protective shutters lined both the first and second floors.

Special vents and steel blast doors were also installed, including a concrete escape hatch from the basement. An air filtration system protected the occupants from gas attacks. Valves vented poison gas while clean air was sucked in and filtered. Plumbing, electrical, communications, and dehumidification systems were installed to serve the staff and equipment. In addition to equipment rooms, the building contained enlisted and officers' latrines both on the ground floor and in the basement. The original design had a boiler room with a coal bin and chute on the west side, but that was never installed. Instead, an inefficient liquid-to-air heat exchanger was installed that pumped hot water to a large radiator with a fan to blow the hot air through the building. As in all HECPs, dehumidifiers and air conditioning were installed in the basement. The floors were covered with linoleum tiles and the ceilings were covered with acoustical tile. The operating crew was billeted at Ft. Getty.

There were no tactical facilities in the wooden portions of the structure, which were for camouflage only. The upstairs 2nd-level rooms did include four visual sighting stations manned by observers with optical azimuth and range finding instruments for the 6-inch

guns of nearby Battery 213 and other batteries and commands. Thick concrete walls separate the rooms. Telescopes and binoculars were standard equipment used for surveillance and to read signals from shipping. The SCR 582 radar room and spare parts storage were also located on the second floor.

In the basement of the building were the target plotting room and the operations center where the Seaward Defense Commander and his staff were located. A large, colored wall map of the defended area was painted on a sheet of steel, showing the coastline from Montauk, NY, to Cuttyhunk in the Elizabeth Islands of Buzzards Bay seaward, to include Block Island and beyond. It was marked with a grid that also showed the range arcs of the coastal gun batteries. All targets reported by observers or radar were positioned on the map with magnets and manually moved with the vessel's track. The Harbor Defenses of New Bedford provided information on all ships headed southwest from the Cape Cod Canal and eastbound traffic was reported from the Harbor Defenses of Long Island Sound.

In the event of action the 243rd Coast Artillery Regimental Commander, Intelligence Officer, and Operations Duty Officer were located at desks with telephones in front of the plotting board. A Naval officer reported underwater intelligence information from the basement cable room and represented NOB (Naval Operating Base) Newport. The underwater cable surveillance room was off limits to Army personnel. Indeed, access was never granted to any area within the HECP to anyone who did not work there. Non-essential talking to other area personnel, including Army to Navy, was also discouraged.

A deckhouse on top of the second floor housed a signal station and behind it the SCR-582 radar antenna dome. Colored signal lights were used to communicate with naval and merchant shipping.

About 200 yards to the north of the structure a 100-ft tower was constructed for an SCR-296A radar. The radar tower according to US Army site drawings was shrouded with a conical top and painted to appear as a watertower from distant viewing angles. Radar area coverage charts were prepared for the defended area to show overlap of other radars located at Block Island, Long Island Sound and along Buzzards Bay. Masking of radar coverage because of land mass obstructions were outlined and posted in the operation/ plotting rooms for all radars located in the defended area.

Staffing

While Fort Burnside was an Army installation under the command of an Army officer, the HECP was a joint Army –Navy operation with the Navy technically in command. The HECP officer in charge was always a Navy Lieutenant Commander.

The Army officers and men assigned to the HECP were a combination of Rhode Island National Guard, Army draftees, and Regular Army. Each gun battery provided one man as an observer for each shift plus one supervisor from Battalion Headquarters. This enabled each observer to communicate with his own unit. The senior NCO of the

regiment was responsible for requisitioning the observers, assigning them to shifts, supervising them, and teaching classes on ship and aircraft recognition.

When the war broke out in December of 1941, personnel who had been inducted with the National Guard had to pass new physical requirements. Men with severe physical limitations were discharged. As the war progressed, officers and men were sifted through many times to take the most fit and competent for assignments to units in training for overseas deployment. Younger officers were replaced by older men shipped in from distant posts. Soldiers with minor disabilities unfit for combat were assigned as observer replacements for men who were physically more fit for combat.

Beginning in 1944, as the enemy naval threat diminished, substantial numbers of soldiers from Narragansett Bay defenses, as well as those from the adjoining states of Massachusetts and Connecticut, were assigned to Field Artillery units destined overseas. Although these personnel reductions affected gun battery efficiency, the HECP still maintained a high level of proficiency controlling traffic in Narragansett Bay. At the same time, upgraded aircraft and blimp capabilities increasingly supported the coastal gun batteries providing early warning of targets approaching the defended area.

Searchlights

Prior to the installation of radars and after the 1942 successful nighttime German U-Boat attacks on coastal shipping, illumination capabilities were rapidly provided to all harbor defense sites. By the end of 1942, three hundred sixty (360) ships had been sunk by submarines mostly on the surface and mostly during night attacks in the Western Atlantic. It was feared that harbor penetration was probable by both submarines and motor torpedo boats. In response, Battery I (Searchlight Battery) of the 243rd Coast Artillery deployed large 60-inch carbon/arc searchlights (built by Sperry Co) on two towers on the base of the previous observation shack in front of the Beavertail lighthouse. During later periods those lights were removed and similar searchlights were mounted on portable wheeled vehicles near the west passage side. Residents reported numerous occasions when the searchlight beams would illuminated the sky. A 25 kW gasoline engine-driven electrical generator provided power for the searchlights. The searchlight azimuth and elevation controller was located in the HECP. In January of 1941, trailer mounted acoustical listen horns supplemented the searchlights as an aid to detection and bearing.

The 60-inch carbon arc searchlights had an aluminum enclosure, a parabolic glass mirror, and an automatic lamp mechanism, which would strike the arc of the carbon lamp, rotate the carbon rod and maintain the proper gap to keep the beam focused properly. Electric motors were used to position the azimuth and elevation of the light controlled from HECP. 15 kW was required to power this large searchlight. Large searchlights were not a new war time development. The National Guard and 10th Coast Artillery Regiment had used them on Narragansett Bay as early as the turn of the last century.

The second deck of the HEPC included 12-inch incandescent lamp blinker signal type searchlights. This signal device was the preferred method of challenging and authenticating arriving ships and providing them traffic direction information into Narrgansett Bay.

The rapid development of radar during World War 2 reduced the dependence on the searchlights, since radar was unaffected by rain, smoke, overcast, and low cloud ceilings. The Army had earlier anticipated that these early radar systems would be used only to acquire targets at night, which would then be illuminated by the searchlights. However, as radar proved more and more accurate and reliable, it became possible to fire the guns at targets seen only by the radar. The improved radar systems later incorporated IFF (Identification - Friend or Foe) systems that would facilitate faster and more positive identification of approaching aircraft and ships.

Magnetic Loop Detection

Supplementing the various electronic detection systems, two loops totaling 90,185 ft of submarine magnetic detection cable were laid on the bay floor just south of Beavertail Point and extending across the entrances of East and West passages. They terminated directly back into the HPEC. The loops conveniently were oriented east to west, opposite to the earth's terrestrial magnetic field variation and allowed sensitive calibration. When a steel-hulled vessel crossed over the loops and distorted the calibrated field, sensitive galvanometers and flux meters registered minute levels of electrical distortion induced into the cables. The signals were detected and amplified to indicator devices in the HECP. Raised concrete pedestals in the lower level of the HECP were used to provide solid non-vibration bases for the underwater detection instrumentation. Direction and speed could be calculated when a vessel crossed two points of the loop array. Tracking accuracy's are not known. The detection loops were removed by the Navy 16 July 1944 although the war with Germany was still in progress and submarines were still in the Atlantic.

Hydrophones

Hydophones were not completely effective against quiet submarines or those that could attempt to drift into a harbor with the tidal current. According to a 1943 Coastal Defense sketch, two underwater hydrophone systems in each passage of Narragansett Bay provided audible detection and limited classification and identification of propulsion engines sources transiting the coverage area. The underwater hydrophone coupling cables along with underwater mine cables were routed to the concrete casemate connecting cable huts at Hull Cove and Austin Hollow. From there, extension cables went into the Mine Control casemate. Little information is available about the type of hydrophones deployed. It could be assumed that they were similar to other binaural transducer type installations used in harbor defenses along both the East and West coasts. These others comprised a device which was remotely rotated by an operator until the underwater sound such as the vessel's propeller was tuned to maximum amplitude and compared at

the end of a horizontal boom. When the sound was equal in both ends of the boom microphones, an azimuth bearing could be obtained to allow tracking. Sound detection in shallow waters without thermal layer temperature distortion could allow detection ranges exceeding 1000 yards. Operators became expert enough to classify specific vessels by their own characteristic noises.

Another hydrophone system concept that may have been used was based on the need to provide information as far ahead of the mine fields as practicable and to determine if mines were being activated by underwater explosion, wave action or ship movement. . An audio reception system designated M1 was standardized in July 1943 consisting of two hydrophones covering four groups of mines, connected to shore equipment. The shore equipment included preamplifiers, amplifier and a recorder. This system was reported to be effective in distances from 500 feet to two miles. Other East Coast harbor defenses supplemented their hydrophone systems with floating Sono Buoys. There was no mention of them being used in Narragansett Bay.

SCR 582 Radar

The SCR 582 radar system was an early 10-cm wavelength WW II design with a peak power of 50,000 watts. It was designed as coastal surveillance radar by the MIT Radiation Laboratory of Cambridge MA. and was used in a number of port locations along both east and west coasts in the United States and Alaska. A few were also used in overseas harbors at Algiers, Crete and Italy. In the early war years these radar sets were the only system capable of detecting low flying aircraft. This radar was also used to detect the presence of ships and to determine the exact range and azimuth to the ship. The targets were displayed on a 360 degree cathode ray tube (CRT) called a Plan Position Indicator (PPI). Effective range was 90,000 yards however the radar on Beavertail with its 42-inch parabolic reflector was limited in achieving this range due to the low installation height and the corresponding curvature of the earth. The antenna was housed in a 6 ft diameter Plexiglas dome above the second story deck of the cottage. The antenna rotated 360 degrees without blanking in the back sector. Reports from an operator of a similar radar installed in northern New Jersey guarding New York Harbor state they rarely saw targets over 30,000 yards (15 miles) unless there were very large ships with high superstructures.

The Army Signal Corps operated the SCR 582 radar as they did with all shore-based radars during the war period. While the HECP installation was completed 1 July 1943, the SCR 582 radar was not installed until 7 June 1944. It was primarily used at nighttime and in periods of low visibility. Radar range and sensitivity calibration was accomplished by the installation of a triangular wire mesh reflector screen installed on Block Island about 18 miles to the southwest. The area of the screen was calculated to represent a reflected radar cross section of a known target size.

The SCR 296A Radar:

The second radar, a SCR 296A also designed by MIT and manufactured by Western Electric Company was installed on a 100-ft tower a few hundred yards to the north of the HECP on 5 June 1944. The SCR 296 was precision fire-control radar. Operation frequency was at 700 MHz, which suggests a dipole bedspring antenna array. The US Signal Corps Historical archives suggest that this may have been the 3rd radar in the Corps history. The "A" designation meant that a Navy type IFF (Identification-Friend or Foe) interrogator system was installed and boresighted to the radar's antenna beam.

Once a target was detected visually, or by the SCR-582 radar, the SCR-296 was trained on the ship or target to accurately determine the range and azimuth. This radar did not sweep in a 360-degree arc like the SCR-582, but showed only a narrow sector controlled by the radar operator. This radar set consisted of many different electronic components contained in a large cabinet and arranged on a large table. The radar set required a crew of four men: a range operator, a range reader, an azimuth operator, and an azimuth reader. The transmitter was located in the base of the tower and RF energy was transmitted via coaxial cable or waveguide to the antenna. The antenna rotator mechanism may also have been located at the base of the tower similar to another SCR 296 installed on Kodiak Island in Alaska. To relieve eye fatigue from looking at the display scope, it was recommended that operators be changed every thirty minutes. The radar was declared obsolete on 17 January 1946 with authority to dispose both the equipment and the tower. It appears that the tower concrete base for the SCR 296A may never have been removed.

Communications

The communication command and control of all Harbor Defenses in Narrgansett Bay were guarded by three U.S. Army regiments. All, including HECP at Beavertail were hooked together by a "Hot Loop" telephone line to the 36th Anti- Aircraft Brigade and the Regional Defense Command in Boston. Fort Adams Newport Harbor Defense first screened all reports. The telephone system was installed by Western Electric Co. and included 100 separate lines terminating in the HECP. There was direct line battery ringing communications from Fort Adams and the NOB (Naval Operating Base Newport) to the HECP simultaneously. The telephone communications system was tested by each shift as they came on duty. This tie-up composed the communications "SEACOAST" Defense for guarding the entrances to Narragansett Bay. Connecting telephone lines from HECP went to local seacoast gun batteries for firing coordination and to casemates located on Prospect Hill where the Mine Command and Fire Control centers were located and to the mine casemate control center at Hull Cove. The Prospect Hill location was the highest point on Beavertail and had an unobstructed view of the nets and booms across the East and West passages.

Radios

Radio communications were to be used in emergency situations only when the telephone system failed. However, radios were checked each day between locations to verify reliability. A complete radio network was in place between HECP, HDCP (Harbor Defense Command Post, Ft. Adams), Fort Varnum in Narragansett, the Prospect Hill casemate and between all the boats of the mine and net tending fleet. The equipment at all stations included SCR-281 (1.8-2.7 MHz AM voice) radio transmitters and receivers with the exception of the mine yawls (small mine tending vessels) who only were equipped with hand held 1 watt BC 611 type single channel walkie-talkie transceivers.

A number of different frequency channels were used between locations. There was some frequency allocation conflicts between the Army and the Navy since the Navy at NOB had responsibility of Harbor Emergency circuits operating on 2090 kHz. The Army eventually moved to 2090 khz and all Narragansett Bay activities including the Torpedo Station, Prudence Island, Davisville and NOB operated on that frequency. The HECP with the radio call sign "1H2" also guarded USCG and NAF frequencies with their TCR transmitters and RBG receivers. A Teletype link apparently was also available from the HECP to NOB Newport. However, little is known about its actual use. Teletypewriters were generally only used to communicate with higher headquarters.

NETS

Anti-submarine nets and anti torpedo boat booms were also used. The first net was laid in 1941 located between Fort Wetherill and Newport Neck on the west shore of Newport and the second net a year later from Fort Getty to Fort Kearny in Narragansett, the location of the present University of Rhode Island Bay Campus. The first nets were actually made of heavy chain segments hung from buoys. These were replaced by cable type 15-inch ring nets early in the war. There were signaling protocols established to enable ships to know if the gates were open or closed. The net tending vessels would show different visual day or lighted night signals for incoming or out going traffic.

In 1942 the West passage and the Sakonnet River were closed to all except specially licensed traffic which included local fishing boats. Gates in the net were installed only in the East Passage and were operated by patrol boats out of Ft Wetherill as directed by the HECP.

A floating boom device was used in conjunction with the nets in the West Passage. One configuration consisted of large floating wooden blocks or timbers anchored to the bottom, shackled together with two parallel steel cables which had enormous protruding barbs. The idea being that a boat would avoid ramming the floating blocks and run over the cable barbs which would rip open the bottom of the boat. Some local sources have stated that while the West Passage nets had no gates, tending vessels would swing open

the boom to allow authorized fishing vessels access to and from the sea. Others state that local fishing boats with shallow draft just rode over the cables, which were below the surface.

Many of the concrete anchor blocks used for securing the nets to the sea bottom are now located in a number of different places on Jamestown. Some can be seen stacked at Fort Wetherill and others are used as small boat outhaul anchors at West Ferry and at Fort Getty.

The Navy facility at Melville was the New England Depot and training command for Coastal Net Detachments. The training school was one of only two that were established in 1941 and then closed in 1944. In the post World War II era, both the nets and floating buoys from the East and West passage were stored at Melville as late as 1960. Net laying vessels the USS Yazoo and USS Tonawanda were based there from time to time and conducted net laying training before relocating to the Navy's Mine Warfare Command site in Florida.

Mines

Fort Wetherill was an operational mine facility as early as 1907, when the mine control and command known as the "mine casemate" was transferred from Fort Adams. Mine field tending vessels were supported by a complex of mine (then called torpedo) buildings, including the torpedo storehouse, cable tanks, loading room, dynamite storage building and the casemate, which controlled the firing of the mines. A new mine storehouse was built at Fort Wetherill, and many of the facilities at Fort Wetherill were used and expanded during World War II.

In 1939 a fairly reliable mine system had been developed and by 1941 the Army finally had the material, adequate facilities, and trained personnel in position at local mine depots along America's coasts to begin the deployment of mines in various defense areas including Narrgansett Bay. By December 7, 1941, the U.S. Army had approximately 5,000 moored, controlled mines in stock and 1,200 mines in defensive minefield projects had already been planted. In early 1942, defensive minefields were completed in San Francisco, Portland, Boston, Narragansett Bay, New York, Chesapeake Bay, Portsmouth, and Cristobal and Balboa (located on each side of the Panama Canal).

In the early part of World War II, buoyant mines with explosive charges of 100 to 500 pounds of TNT were planted. These were attached by cables to anchors, and floated about 15 feet below the surface. These mines could be set for "contact fire," "delayed contact fire," "observation fire," or they could be rendered safe. The contact firing options required that a ship physically contact the mine in order to fire the mine. Observation fire required that the target ship either contact the mine, signaling the casemate, or be seen from an observing station. The HECP then had to determine if the ship was enemy or friendly. Upon direction from the HECP, the mine casemate could selectively fire a mine electrically. In 1943, a newer generation of mines replaced the older "contact type" mines. These "ground mines" lay on the seabed, filled with upwards of 3000 lbs. of TNT. They were cone shaped, to resist being displaced by mine sweeping vessels. These new mines would signal the control station if a ship of over 1,000 tons passed over. The

control station could electrically fire the mines when given the authority or place a specific field in an automatic mode to detonate when its sensing mechanism detected a target.

M4 ground mines replaced buoyant mines in the East and West passage. Twelve groups of mines, 19 mines buoyant or 13 ground mines per group, six groups in each passage (East and West), in two lines were planted and placed into operation on 5 February 1942. Although a third line of mines was planned in the East passage, they were never were planted. In a postwar ordnance disposal summary, it was reported that 234 M4 mines in total were recovered and disposed of in addition to 291 other types.

A pre-war cylindrical buoyant mine case (type M3) is displayed on the lawn at 200 Southwest Ave, Jamestown. It was "planted" as a decorative commemoration in 1976 by Archie Clarke II.

All mines were connected by electrical cables to their respective shore cable huts MC1 and MC2 at Hull Cove and Austin Hollow. The structures, although deteriorating, still stand. The cable hut at Hull Cove includes remnants of the cables and connections. Both MC1 and MC2 were connected to the Hull Cove Mine Casemate just west of Beavertail Road and now on private property. The casemate serves as the basement of a private home. The Hull Cove Mine Casemate was a reinforced concrete structure where the location of the mines and their targets was plotted and the mines were fired. The under ground structure contained mine plotting and mine control operating rooms where banks of lights indicators and activation switches were located. The mine casemate at Hull Cove was under the direction of HECP and Mine Command on Prospect Hill.

Information to the HECP from the Mine Command Post on Prospect Hill would indicate when a ship or submarine contacted a mine. The HECP Commander or Duty Officer could then order Mine Command to fire one or more mines to destroy the intruder. Firing too many mines would open a corridor, which would allow an intruder to enter the harbor after a false or decoy attack. The 10th Coast Artillery regiment, headquartered at Ft. Adams, had units at Ft. Wetherill and at Ft. Varnum. These units and their flotilla of mine vessels planted and controlled the minefields. East Passage mines were controlled from Fort Wetherill until the Hull Cove Mine Casemate was completed. Another mine complex at Fort Getty serviced the West passage.

The Navy was much concerned about possible accidental damage or sinking of Navy vessels from detonation of a friendly mine. Much to the dismay of the Army mine commander, he was ordered by the HECP to place the entire mine system on safe status when any Navy ship entered or left Narragansett Bay.

The mine storehouse at Fort Wetherill still stands, used by the Jamestown Highway Department as a garage and repair facility. RI State Department of Environmental Management (RIDEM) will renovate three older mine buildings for fisheries research. A more recent initiative is being examined by the Jamestown Historical Society and the Friends of Ft. Wetherill to establish an interpretive center at the older mine casemate

building. The sixth remaining structure in deteriorating condition is the dynamite storage building located up against the hill embankment

As an added note: *There is no record of any enemy ship being damaged or sunk, or even detected, by any domestic minefields which were located in the United States. After World War II, the US Navy assumed the responsibilities of harbor defense mining. Mines were actually deployed by German forces and posed a real coastal threat. Numerous mines were detected and destroyed off East Coast harbors including New York, Charleston SC and Cape Henry VA.*

Spraycliff (Mickey)

It would be remiss not to mention the other facility on Beavertail during the same period. The "Spraycliff" (code name "Mickey") radar test and training station which was located north of the HECP and on the West Side of Beavertail Road. In operation from January 1942 through April of 1945, it was a joint MIT Radiation Laboratory research facility and Naval Aviation training site for aviators flying out of Charleston Naval Air Station. John Hopkins University also conducted equipment tests in conjunction with the US Navy for some period after the war. Mickey was a highly visible military facility. It contrasted with the low-key architectural camouflaged design of the HECP farmhouse. Mickey with five radar towers and a stark rectangular building (The Systems Research Field Station) left no imagination as to its military mission. It demonstrates the contradictory thinking of camouflage value compared to the initial design and visual deception of the HECP structure.

Mickey provided important combat training for the war. Fighter pilots flying from Charleston NAS were trained in night intercept maneuvers and new shipboard radar designs were tested prior to manufacture and installation on combat vessels. In addition, almost every US Navy aircraft carrier Combat Information Center (CIC) team was trained there. With considerable air training exercises being conducted, a number of accidents took place and the HECP with Spraycliff participated in coordinated air/sea rescues of downed aircrew. Citations and awards were presented to the station and crewmen of the HECP for their life saving actions.

An undated painting in the Jamestown Library by Catharine M. Wright portrays with fair accuracy the Mickey facility/laboratory structure called the "Systems Research Field Station" with its many radar and communication masts. It was probably painted in the latter part or shortly after the war since many of the antennas replicated are of late WW II design. The painting is often mistaken as the HEPC Command Post at Fort Burnside.

Restricted Site drawings dated June 30 1944, idendify the location as "Naval Training Facility, Beavertail, Project AFRIM and Radio Range Jamestown, RI". Other drawings dated the same dated are titled "US Navy AUX. Air Facility, Beavertail Point, RI". The radio range is shown at the extreme north end of Conanicut Island.

HECP Effectiveness

The value of the extensive defenses controlled by the HECP, and their ability to deter enemy ships and submarines from entering Narragansett Bay may never be fully calculated. The US Navy in 1944 reported that the value of underwater surveillance "is evident from the fact that not one effective penetration into any harbor anywhere, guarded by US harbor detection equipment has been made since the midget Japanese submarine slipped into Pearl Harbor on December 7th 1941."

Other than the German U-boat 853 encounter (Last German U-boat sunk in WW II) and the associated torpedo sinking of the SS Black Point off Pt. Judith, there were no enemy incidents. (*The Commanding Officer of Fort Burnside, Lt. Col. I. Henry Stern himself was on duty in the HECP operations room at the time and authorized the Naval and Coast Guard vessels in the area to detect, engage and attack the submarine*.)

Movement of aircraft carriers such as the USS Ranger CV-4 loaded with as many as 72 P-40 fighter aircraft for the African/European Theater and its accompanying fleet of cruisers and destroyers came and went without incidents. Large movements of naval combat and support vessels for convoys and/or European deployment plus daily training exercises outside the harbor were all safely conducted. PT Boats from Melville or new PT boats on sea trials from the Herreshoff boat yard in Bristol frequently raced in and out of Narragansett Bay often laying practice smoke screens. During the entire war period, Newport, Goat Island, Melville, Quonset, Davisville, the large Walsh-Kaiser shipyard in Providence and other military facilities in Rhode Island survived the war years un-molested by the enemy.

A major happening did take place in April 1942 when the USS Capella an AK type transport ship was accidentally torpedoed by a PT Boat inside Narrgansett Bay. The HECP, aware only of the explosion and not immediately knowing the cause or location set an attack condition throughout the defended Seacoast area until the Navy determined its origin and notified the HECP. The ship in a sinking condition with cargo on deck including aircraft was towed into Potters Cove, Jamestown where she grounded and heeled over on the beach. The Capella was repaired and returned to service.

In one other incident, the Navy underwater loop system in the East Passage detected an unknown underwater object entering the harbor. The HECP and the harbor defenses placed everyone on full alert. Passes were cancelled, mines activated, and guns manned. The use of depth charges was forbidden to prevent damage to the nets and minefield. Nothing happened and the next day the same system detected an object leaving the area. Sub chasers and PBY aircraft from Quonset "pummeled" the bottom ,but the only result was to agitate an old City of Newport dumping ground and release odorous brown gases that reached the shore.

It is not known to what extent knowledge of Ft. Burnside's HECP and its associated coastal defense weapon systems deterred German military strategists. Clearly, however, the thousands of military personnel who spent endless hours of boring vigils in the

unglamorous task of surveillance, provided security to Narragansett Bay. The US Navy has proclaimed that no Axis vessel was detected closer than 3000 ft from any harbor entrance during World War II. The American coastal defense system, in general terms, was widely known, even before the war. Although information on exact deployments and new developments was carefully kept secret during the war, the fact that American harbors were ready and able to defend themselves was common knowledge to enemy forces

Post World War II

The war with Germany was over on May 6 1945. There was no threat from Japan on the East Coast and the surrender to Allied Forces followed in August of the same year. On 27 June 1945 at 23:59 hours the Harbor Entrance Command Post at Beavertail ceased official operations. One minute later on 28 June 1945 it commenced operation under US Navy control as the "Beavertail Signal Station."

In January of 1946 much of the World War surveillance equipment was declared obsolete and authorized to be disposed including the SCR 296 and the SCR 582 radars.

There were plans in 1950 to upgrade both the HECP and the former Spraycliff research station into a Combat Operations Training Center (COC) for aircraft carrier and destroyer CIC crews. The Navy claimed the upgrading would provide advanced ship and aircraft intercept integrated training. The 110 ft tower on the east side of the building supports an old SG-2S Raytheon Company manufactured Harbor Control Radar antenna which was installed about 1951. The SG-2S was a land version of the famous SG surface search series that were on most US Navy combat ships. A third low power surface search radar was also installed on the west corner of the HEPC.

On 18 January 1957 what was known as Fort Burnside was transferred to the US Navy and renamed the "Naval Communications Station". The HECP was re-designated by the US Navy as the "Transmitter Building". On or near the location of the dismantled Spraycliff site, a number of other radio antenna towers and HF transmitters were installed in addition to 14 small supporting structures that were built on leased land.

Subsequent to this period a number of antenna mast/poles and a 50-ft tower was erected. In 1963 an AN/ SPN-6 S-Band radar antenna was installed on the tower adjacent to the HECP on the west side. A massive high power radio Variometer tuning coil was installed in a nearby Quonset Hut to match a special Very Low Frequency powerful long range (VLF) transmitter operating at 156 kc with a power of 200 kW. A 658-ft high top loaded vertical tower served as the antenna. Transmissions were directed to select Navy sites world wide and to submarines. The receiver site was located on the Sakonnet Point shore. The facility now took on the looks of an electronic listening post with towers and wires and lost its farmhouse serenity look. Although much documentation is missing, 1960 era photographs support extensive Navy hyrophone experimentation being conducted from the HECP. Heavily armored underwater cables protected against chafe were strung from the basement location in the HECP across the rocks and into the sea.

The wire antenna mast/poles were used for long range HF radio communication and consisted of a number of dipole and end fed antennas. For a period of time, up until 1977 both the U.S. Navy Reserve and the Marine Corps used the facility for weekend drills and maneuvers. An adaptation to the building was made during that period by adding kitchen space, more toilet facilities and day sleeping quarters.

Ultimately, the site was abandoned. There was some consideration by the local Jamestown American Legion organization to use it as a Post but after evaluation the idea was discarded. In the late 1970's it was substantially vandalized and much of the radar/communications equipment was smashed and stolen. All that remains inside the building are the remnants of the SPN-6 Raytheon radar system which was normally used by the U.S. Navy on board aircraft carriers to guide returning aircraft onto carrier landing decks. This system was most likely used for crew training. In the basement there still remain the telephone line terminus, some distribution line transformers, pieces of underwater cable and some storage racks.

In July of 1973, 20 acres by deed was conveyed to the Town of Jamestown for use as a public park and recreation purpose. In 1975 the US Navy reported to the Government Services Administration, 185 additional acres were surplus. Bits and pieces were carved out for road access, electrical power rights of way and service to the "Raydist Site". Strong opposition against any type of commercial development was raised by Jamestown residents and environmentalists. With the direct involvement by the late Senator John Chaffee environmentalists succeeded in persuading the US Government to deed the property to the state. On 16 April 1980 158.18 acres was deeded to the State of Rhode Island with the US Government perpetually holding all oil, gas and mineral rights to the property. The 20 acres deeded to Jamestown were leased back to the State of Rhode Island in July of 1980 for 40 years with renewable 40-year options. The entire Fort Burnside site is now known as Beavertail State Park.

Present Day

The structure as it exists today was saved from further vandalism and demolition in 1980 by the present caretaker who "fell in love' with the place and convinced Jamestown Town Officials to allow him to live rent free in the abandoned building in exchange for providing limited caretaker services of the building and grounds. The caretaker relocated a kitchen inside the rear of the building, improved some spaces to make them livable while retaining the entire original floor layout. He has installed considerable amateur radio equipment and a few wire antennas onto the existing poles. A very small portion of the caretakers extensive personal collection of military communications equipment can be mistaken for equipment similar to what was at the site. Only remnants of the radar equipment as mentioned earlier remain. Most of the basement rooms are empty except for deteriorated metal furniture left by the last military users.

While the caretakers action saved the building and some maintenance with improvements has been performed; the structure and the towers are in need of substantial repair. The site is presently under the jurisdiction of the Department of Environmental Management, Rhode Island Parks and Recreation Department and is considered private property because it is a caretaker's residence. Under a 1989 5 year renewable lease agreement with the state, the caretaker pays the state a nominal rental fee, cost of utilities and a liability insurance policy in return for providing a level of security and caretaker services that encompass 10,000 sq. feet of property. At the present time (*April 2000*) the RIDEM lease has expired and a month to month agreement is in effect with the expectation that the full lease will be renewed.

The HECP comes back to life, somewhat, emitting radio signals from its antenna towers and surrounding grounds each 4th full weekend in June. The Providence Amateur Radio Association (PRA) arrives each year with radio transmitters, receivers, antenna wire and portable generators and sets up emergency simulated radio communications with other "Hams" throughout the world. This 24-hour test called "Field Day" sponsored by The American Radio Relay League (ARRL) results in thousands of radio contacts and demonstrates the ability of Ham Radio operators to communicate in a field environment. The towers at HECP provide exceptional heights to string temporary radio antennas and the grounds are spacious enough to set up a variety of HF, VHF and UHF operating stations in portable trailers and tents. PRA is the oldest Radio Club in the nation and has promoted the Beavertail site to the world.

While ARRL Field day draws a substantial number of radio operators if only for 24 hours each year, there was another radio system antenna mounted on the east tower of the HECP that was part of the New England Relay Radio Network. It provided continuous year round UHF repeater service on the 220 MHz amateur radio band. The normal line of sight signals from distant transmitters were replicated and retransmitted using the extra height and additional power from the co-located repeater, thereby extending the communication range.

In April of 2000 Omnipoint, a commercial cellular telephone company approached the Town of Jamestown proposing a plan to install three antenna arrays on the 110-ft tower adjacent to the HECP and a communications relay unit at the base to extend telephone coverage. Approvals from the Town of Jamestown, DEM, RI Coastal Resources Management Council and the US Department of Interior would be required.

Epilogue

By the end of World War II, new tactics, new weapons, and technological advances in ships, long-range aircraft, and surveillance eliminated the need for HECPs and fortified gun batteries. Coastal and harbor defense was history and most facilities were dismantled, abandoned, or destroyed. The US Navy consolidated its communications facilities and relocated resources under new command structures. Conanicut Island was left with only the crumbling remnants of a rich history of military preparedness and activity.

The HECP remains as a unique reminder of Beavertail's contribution to the defense of Narragansett Bay and to the war effort. The building qualifies for the National Registry of Historic Places as recognized in the deed transferring the property to the state: the state is specifically required to maintain it so as to preserve those building qualities and to submit plans for its maintenance. As of this date RIDEM has no plans to apply for national registry, due to very limited staff, although they would probably be agreeable to such a designation. Nor does it appear they would pursue this in the near future due to very limited staff availability.

Without question, the HECP is a structural artifact needing to be preserved. No other structure of World War II vintage on Conanicut Island other than the Recreation Center at East Ferry and perhaps the Mine (torpedo) Storage Facility at Fort Wetherill used by the Jamestown Public Works Department remains in as good condition. Fortunately the concrete structural walls and floors can survive time, winds and storms. The towers will not survive nor will the exterior shell of the structure unless a dedicated maintenance program is initiated and associated funding be found for its preservation. It is possible that the state is in default of the deed agreement with the US Government as it relates to maintaining the building qualities as they were at the time of transfer.

As a note: *Substantial preservation and restoration of other HECPs are being conducted by various private, public, state and federal agencies throughout the United States and Alaska. The HECP at Beavertail is unique because of the design concept to conceal its identity to enemy intelligence and its present physical condition. During the research for this article a number of Coastal Defense preservationists from other locations were contacted for information who in turn asked for further information on the Beavertail site to include with their archives.*

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The Defenses of Narragansett Bay…. *Walter K. Schroder*

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SCR 281, 536, 543 radio specifications……Greg Greenwood

Photo and Sketch Index

Anti Motor-Torpedo Boat Gun Battery Coverage Sketch 1945

Beavertail Aerial View 1944

Ft. Burnside Air View 1944

Ft. Burnside Inspection Sketch 1976

HECP Structure Floor Plan 1944

HECP (Naval Communications Station) 1974

HECP (Naval Communications Station) 1970

HECP view 2000

HECP Basement Rooms 2000

HECP Operations Center Grid Map

HECP Structure Profile Plan 1944

Hull Cove Cable Hut Casemate 2000

Hull Cove Mine Control Casemate Floor Plan 1942

Mine Control Test and Firing Control Panels

Narragansett Bay Underwater Defenses Sketch 1943 (Revised 2000)

Naval Communications Station Land Area Map 1961

Naval Communications Transmitters 1974

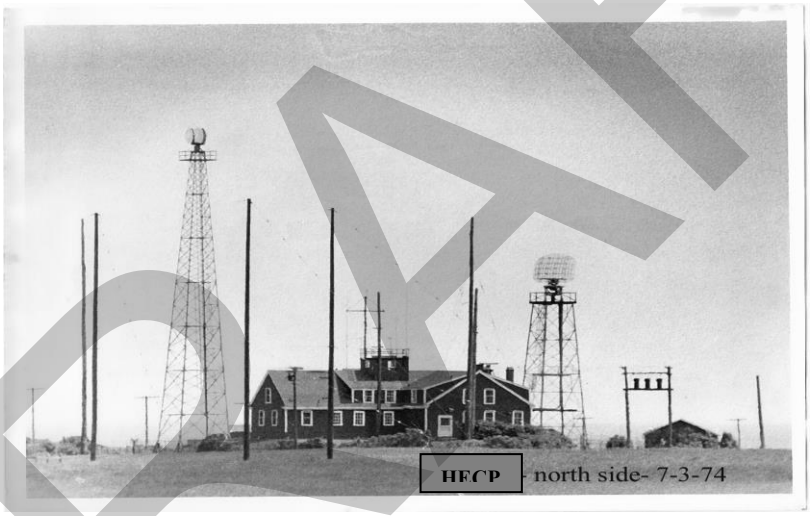
SCR 582 Sketch ……..

SCR 281, 536, 543 radios ……Greg Greenwood

Harbor Entrance Command Post

The HECP at Fort Burnside

Beavertail Point
Conanicut Island
Jamestown, RI



Jamestown Historical Society
Varoujan Karentz
April 2000

The HECP as it appeared in a 1980 photo.

Built during World War II it was in operation from 1943 to 1945. An SCR-582 radar was originally installed on the upper deck.

The tower with an AN/SPN-6 radar, the signal mast and the HF antenna poles as shown in the photo were installed when the facility was in use as an USN Signal and training Station after July of 1945.

Building Configuration and Operation

The two story 24-room HECP building was constructed of reinforced concrete, in some sections as much as 3 ft thick. Its footprint measures 69 ft across the base by 53 ft 6 inches. "Cottage C1" was actually a bomb-proof bunker. The concept was to have the HECP look like a farmhouse, complete at one time with grazing livestock. It was described in engineering drawings as "non conspicuous." The exterior was decorated with stucco, wood trim, false porches with wood railings, and cedar shingles. On the north side three false windows with wood trim are painted on the concrete wall of the radio room. A series of rectangular viewing ports with protective shutters lined both the first and second floors.

Special vents and steel blast doors were also installed, including a concrete escape hatch from the basement. An air filtration system protected the occupants from gas attacks. Valves vented poison gas while clean air was sucked in and filtered. Plumbing, electrical, communications, and dehumidification systems were installed to serve the staff and equipment. In addition to equipment rooms, the building contained enlisted and officers' latrines both on the ground floor and in the basement. The original design had a boiler room with a coal bin and chute on the west side, but that was never installed. Instead, an inefficient liquid-to-air heat exchanger was installed that pumped hot water to a large radiator with a fan to blow the hot air through the building. As in all HECPs, dehumidifiers and air conditioning were installed in the basement. The floors were covered with linoleum tiles and the ceilings were covered with acoustical tile. The operating crew was billeted at Ft. Getty.

There were no tactical facilities in the wooden portions of the structure, which were for camouflage only. The upstairs 2nd-level rooms did include four visual sighting stations manned by observers with optical azimuth and range finding instruments for the 6-inch

guns of nearby Battery 213 and other batteries and commands. Thick concrete walls separate the rooms. Telescopes and binoculars were standard equipment used for surveillance and to read signals from shipping. The SCR 582 radar room and spare parts storage were also located on the second floor.

In the basement of the building were the target plotting room and the operations center where the Seaward Defense Commander and his staff were located. A large, colored wall map of the defended area was painted on a sheet of steel, showing the coastline from Montauk, NY, to Cuttyhunk in the Elizabeth Islands of Buzzards Bay seaward, to include Block Island and beyond. It was marked with a grid that also showed the range arcs of the coastal gun batteries. All targets reported by observers or radar were positioned on the map with magnets and manually moved with the vessel's track. The Harbor Defenses of New Bedford provided information on all ships headed southwest from the Cape Cod Canal and eastbound traffic was reported from the Harbor Defenses of Long Island Sound.

In the event of action the 243rd Coast Artillery Regimental Commander, Intelligence Officer, and Operations Duty Officer were located at desks with telephones in front of the plotting board. A Naval officer reported underwater intelligence information from the basement cable room and represented NOB (Naval Operating Base) Newport. The underwater cable surveillance room was off limits to Army personnel. Indeed, access was never granted to any area within the HECP to anyone who did not work there. Non-essential talking to other area personnel, including Army to Navy, was also discouraged.

A deckhouse on top of the second floor housed a signal station and behind it the SCR-582 radar antenna dome. Colored signal lights were used to communicate with naval and merchant shipping.

About 200 yards to the north of the structure a 100-ft tower was constructed for an SCR-296A radar. The radar tower according to US Army site drawings was shrouded with a conical top and painted to appear as a watertower from distant viewing angles. Radar area coverage charts were prepared for the defended area to show overlap of other radars located at Block Island, Long Island Sound and along Buzzards Bay. Masking of radar coverage because of land mass obstructions were outlined and posted in the operation/ plotting rooms for all radars located in the defended area.

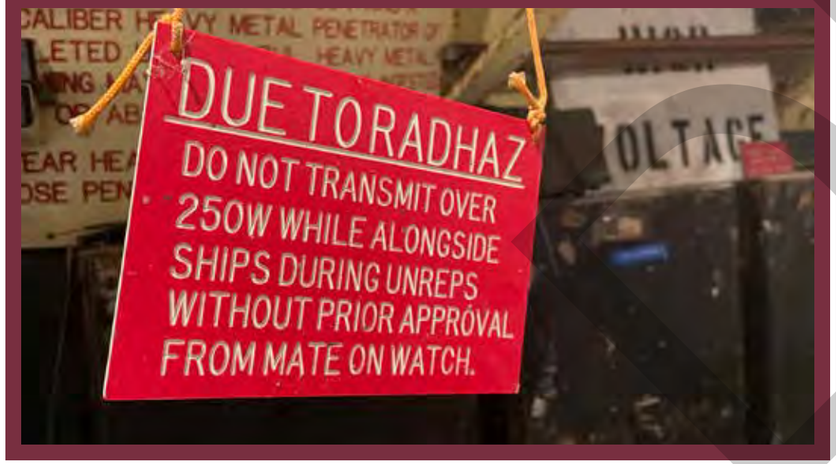
Staffing

While Fort Burnside was an Army installation under the command of an Army officer, the HECP was a joint Army –Navy operation with the Navy technically in command. The HECP officer in charge was always a Navy Lieutenant Commander.

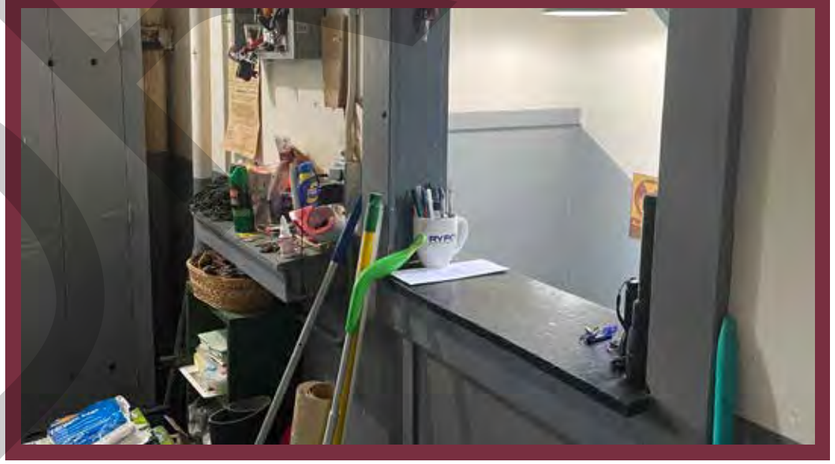
The Army officers and men assigned to the HECP were a combination of Rhode Island National Guard, Army draftees, and Regular Army. Each gun battery provided one man as an observer for each shift plus one supervisor from Battalion Headquarters. This enabled each observer to communicate with his own unit. The senior NCO of the

10 BETA Harbor Entrance Command Post Interior Photos

BASEMENT



FIRST FLOOR



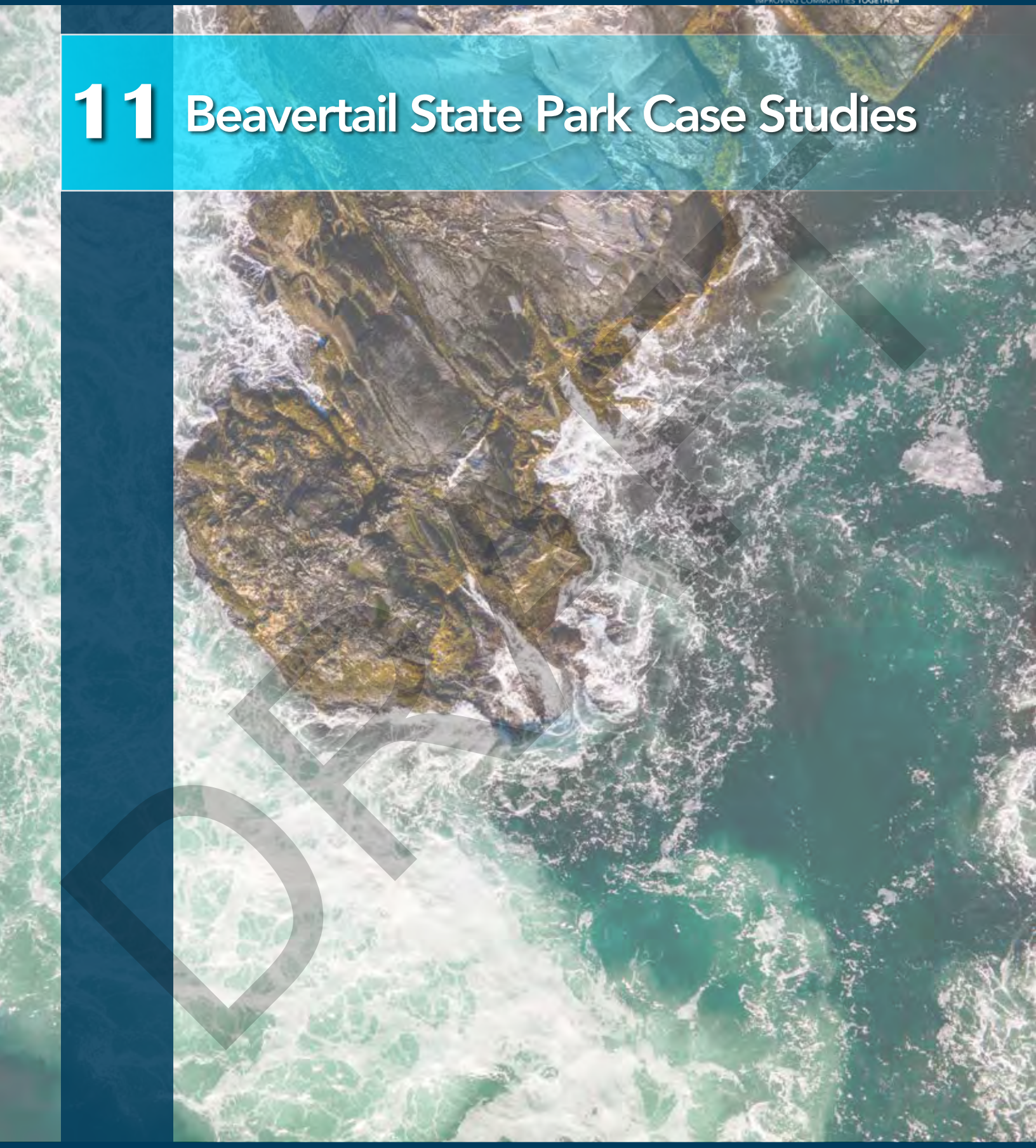
SECOND AND THIRD FLOOR

BETA - HARBOR ENTRANCE COMMAND POST PHOTOS

BETA - HARBOR ENTRANCE COMMAND POST PHOTOS

BETA
IMPROVING COMMUNITIES TOGETHER

11 Beavertail State Park Case Studies



Beavertail State Park

Case Studies Presentation

40 Years BETA

IMPROVING COMMUNITIES TOGETHER

Wayfinding	Energy efficiency
User Fees	Pedestrian circulation
Trails	Vehicle circulation
Shoreline access	Stormwater management
Preservation and recognition of cultural / historic	Access to natural and manmade facilities
Other possible uses? Programs	Comfort facilities
Seating / Passive Recreational Options	Protection of sensitive areas
Erosion Control	Connections to other recreational facilities
Parking Fees	Bicycle mobility
Parking Type	Language access
Accessible infrastructure	Digital access
Biking/Walking/Transit Access	Environmental Education
Safety Measures	Bike circulation
Hunting	Responsible behavior signage
Maintenance Minimization	Paths that avoid naturally sensitive areas
Relationship with private vendors and private events	

Beavertail assets and strengths

Assets and strengths

- Beautiful water views
- Natural resources
- Existing Trails
- Historic sites (lighthouse, bunkers)
- Existing composting toilets

Weaknesses and threats

- Car-dependent access
- Coastal erosion and sensitive natural resources
- Shared ownership/management
- Lack of formalized trail network
- Impervious surface and stormwater management
- Lack of seating / benches

Fort Foster Park

Kittery, ME

General

Fort Foster Park - Kittery, ME.

- No trash facilities
- Closes at 8pm or dusk, whichever one is first.
- Dogs must be leashes but are permitted year round
- No Life guards

*fort_foster_fee_schedule_march_2022.pdf (kitteryme.gov)

**Fort Foster Park | Kittery ME

Pedestrian, Bike and Vehicle Circulation

Fort Foster Park - Kittery, ME.

- Speed limit on all park roads is 5mph
- Parking fee*: Vehicle day use = $20.00; Season pass = $20 for resident & $75 for non-resident
- Season pass holders get up to five pass cards which allows for entry on foot or bike for a pass holder. Walk-ins have to pay $20 each?
- Trails for walking

Historic Ruins

Fort Foster Park - Kittery, ME.

[Park Images Slideshow | Kittery ME]

Pavilion Rentals

Fort Foster Park - Kittery, ME.

- Carryin carry out trash.
- No power available
- Alcohol prohibited
- Between 10AM and 7PM
- Fee for weddings mostly
- 100 people max

- Pavilion Rentals | Kittery ME

  Park Images Slideshow | Kittery ME

Program of Uses

Fort Foster Park - Kittery, ME.

- Fishing - need to register with state
- Charcoal grills and tables
- Two beaches with swimming permitted
- Non motorized watercraft only can be launched from one section
- No removal of any flora or fauna
- Hunting is prohibited
- Scuba diving permitted at scuba beach
- No commercial activities permitted
- Trails
- Lighthouse views
- Military fort ruins
- Playground

Park Images Slideshow | Kittery ME

Fishing & Harvesting Regulations | Kittery ME

Microsoft Word - Fort Foster Rules NEW (kitteryme.gov)

Fort Foster Park - Kittery, ME.

[Park Images Slideshow | Kittery ME]

Environmental Education

- “The Town developed the Invasive Species Management Plan in 2020 and has hired a state licensed consultant to complete year one of the plan. The recommendations within this plan focus on controlling existing invasive infestations and eradicating new ones, with the goal of restoring the dominance of native plant communities throughout the park. The plan also aims to incorporate community education and engagement while fostering public acceptance and volunteer effort. ”

Wayfinding

Fort Foster Sign

[Park Images Slideshow | Kittery ME]

Access

"Gatehouse: (207) 439-2182 **(unmanned in off-season)"**

"The Fort Foster Park gate is closed to vehicular traffic in the off season and will reopen in Spring 2022."

[Fort Foster Park | Kittery ME]

Stage Fort Park

Gloucester,MA

Stage Fort Park - Gloucester, MA

Pedestrian, Bike and Vehicle Circulation

Stage Fort Park - Gloucester, MA

[Parks and Recreational Facilities | Gloucester, MA - Official Website (gloucester-ma.gov)]

- Parking is $15 per vehicle on weekdays and $20 on weekends and holidays
- Walking trails

Program of Uses

Stage Fort Park - Gloucester, MA

- Benches
- Beaches
- New playground
- Volleyball court
- Baseball Field
- Basketball Court
- Tennis Courts
- Outdoor concerts
- Visitor and Welcoming Center
- Picnic tables and grills
- Restrooms
- Farmers Markets
- Dog park
- Dogs allowed in park but not on the beaches

[Parks and Recreational Facilities | Gloucester, MA - Official Website (gloucester-ma.gov)]

[Stage Fort Park - Gloucester Visitor Cent
Heritage Area (essexheritage.org)]

Stage Fort Park - Gloucester, MA

- Also from Google People. I’m not sure how to cite them?


Stage Fort Park - Gloucester, MA
GLOUCESTER
Google

Weddings and large group outings

Stage Fort Park - Gloucester, MA

- Weddings are $250 per permit
- Group outings are $75 per permit
- Corporate outings are $250 per permit

[Parks and Recreational Facilities | Gloucester, MA - Official Website (gloucester-ma.gov)]

Walden Pond, Concord MA

General

Walden Pond - Concord, MA.

- Sunday - Saturday:
  5:00 am-7:30 pm but vary seasonally
- No dogs or pets
- No fires or grilling
- No camping
- No alcoholic beverages
- No hunting
- No blow-up water toys
- No parking on the streets
- No hammocks
- No Lifeguards

Beginning July 9, 2021, DCR will again allow open water swimming with updated rules and guidelines that include designated hours for open water swimming, designated points of entry into the pond for open water swimming, and a requirement for open water swimmers to utilize a safety apparatus while swimming.

Walden Pond State Reservation | Mass.gov

Pedestrian, Bike and Vehicle Circulation

Walden Pond - Concord, MA.

- Parking is located in the large lot off Route 126
- MA Resident: $8
- Non-MA Resident: $30
- You can get a senior pass or parking pass for Massachusetts state parks. The annual parking pass is $60 for MA residents and seniors can buy a lifetime pass for $10.
- They have 4 vehicle charging stations
- They have beach wheelchairs
- The Thoreau House Site Trail is universally designed
- No parking on the streets
- No bikes on trails
- No gasoline engines
- Solar panels above parking

Historic Sites

Walden Pond - Concord, MA.

Thoreau’s cabin site

[Walden Pond and Thoreau Cabin | Poets & Writers (pw.org)]

[Thoreau’s Cabin Site | The Walden Woods Project]

“Also be sure to visit the replica of Thoreau's single-room cabin.

Organized groups must call in advance to make a reservation. Park hours vary seasonally.”

Program of Uses

Walden Pond - Concord, MA.

- Swimming
- Boating – they have a boat ramp
- Trails
- Visitor Center with Free WiFi

Access

Walden Pond - Concord, MA.

- They have a main gate that opens and closes
- They lock up the boat ramp when it is closed
- Bathrooms lock when it’s closed
- They have machines for parking fees or you can pay online

Google

Forts

Fort Pulaski

General

Fort Pulaski - Savannah, GA.

- National Park, not state but interesting
- 97% original
- “Fort Pulaski National Monument is open year round from 9:00 a.m. to 5:00 pm, except for New Years, Thanksgiving, and Christmas Days. Last entry into the park is at 4:30 pm. Historic Fort Pulaski is open 9:00 a.m. to 4:30 pm and the Visitor Center is open from 9:00 am to 5:00 pm.”

[Virtual Tour Stop - Visitor Center and Demilune - Fort Pulaski National Monument (U.S. National Park Service) (nps.gov)]

Access

Fort Pulaski - Savannah, GA.

- Access to the site is just by driving. On an island.
- Fee for entering.
  - Not specifically for parking.
  - $10 for 7 consecutive days.
  - Youth 15 or under are fee
  - $35 for an annual pass valid for a year from the month of purchase
  - They have fee free days on MLK day, Presidents Day, Firs Day of National Park Week (April 16th), Great American Outdoors Act Day (August 4, 2022), National Public Lands Day (September 24) and Veterans Day
  - You can only pay credit or debit.
  - "Funds generated by the fees are used to accomplish projects the parks have been unable to fund through annual Congressional allocations."
- Some locked doors within but people can generally wander around
- If you have a national park pass, you can get in, I believe, free.

Basic Information - Fort Pulaski National Monument (U.S. National Park Service) (nps.gov)

Gallery Item Display (nps.gov)

Programming & Interaction

Fort Pulaski - Savannah, GA.

- They have signage and plaques within the fort people can look at. They have story board with history and original pictures.
- Self-guided tours. You can get a pamphlet and use it to guide you around.
- They have a person who focuses on programming. They are training someone for this role now.
- They have reenactment programming.
- They also have scenic trails with historic markers around the island and wayfinding signage telling people where to walk.
- Virtual Tour - Fort Pulaski National Monument (U.S. National Park Service) (nps.gov) – They have a virtual tour online

Fort Pulaski - Savannah, GA.

Take a virtual tour of the outside of Fort Pulaski by clicking on the map above or the links for the tour stops below.

Virtual Tour Stop - Cemetery

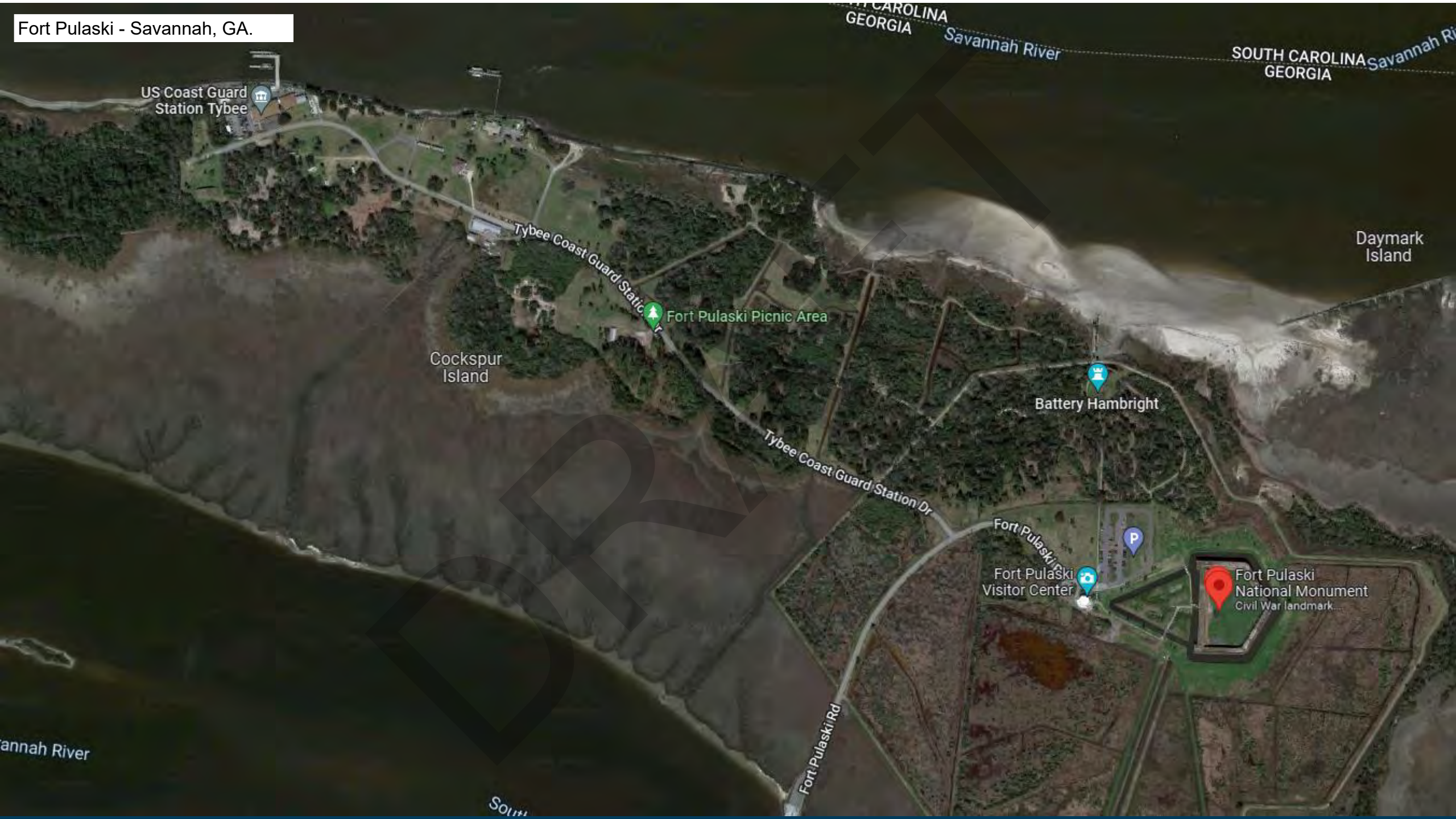
Cemetery Ranger Talk

0:00 / 3:39

Listen to a park ranger talk about this tour stop.

CREDIT / AUTHOR: NPS/E. Smith

DATE CREATED: 2020-10-14 00:00:00.0


Fort Pulaski - Savannah, GA.
GEORGIA
Savannah River
SOUTH CAROLINA
GEORGIA
US Coast Guard Station Tybee
Tybee Coast Guard Station Dr
Fort Pulaski Picnic Area
Daymark Island
Cockspur Island
Battery Hambright
Tybee Coast Guard Station Dr
Fort Pulaski Rd
Fort Pulaski Visitor Center
Fort Pulaski National Monument
Civil War landmark
Fort Pulaski Rd
annah River

Fort Adams

Interpretation: Guided Tours

Fort Adams - Newport, RI.

- 75-minute guided tours of the history, design, and restoration of fort Adams.
- Volunteers and staff lead guided tours
- Private and group tours
- They also have a “Tunnel Rat” tour which includes a Q&A booklet, Fort Adams Pencil, and Tunnel Rat Patch
- The tour is $15 for adults and $8 for youth.
- There are both restored and unrestored areas. You get to see the tunnels.
- They also have a self guided tour app that allows you to walk around the outdoor facilities (the 6.5 acre parade field , restored north overlook with views from the top of the Fort walls. The self guided tour doesn’t grant access to the underground tunnels.

Access

Fort Adams - Newport, RI.

- Have electric charging station
- A Fort Adams Bay Walk

Fort Adams - Newport, RI.

[Visit Fort Adams - Fort Adams and The Fort Adams Trust (moonbirdstudiosdev.com)]

Community Service at the Fort

Fort Adams - Newport, RI.

- Youth Overnight Rental - Fort Adams and The Fort Adams Trust (moonbirdstudiosdev.com)
- It looks like they partner with local youth groups like community service and scouts to do brush clearning, painting, trash removal, and small construction projects

Fort Adams Overnights

Fort Adams - Newport, RI.

- You can sleep overnight in barracks at Fort Adams
- Youth Overnight Rental - Fort Adams and The Fort Adams Trust (moonbirdstudiosdev.com)
- $30 per person per night including a guided tour with a minimum of 10 people

- Newport Folk Festival
- Newport Jazz Festival

WWII Fortifications

Cape Henlopen State Park

Cape Henlopen State Park - Lewes, DE.

- Was home to Fort Miles during WWII including iconic fire control towers along the Atlantic coast.
- They have a tour of the fort miles historic area with a tour of Battery 519 and a climb to the top of the observation tower.
- Battery 519. Takes around an hour. Go through process. Who was there, why were they there, background of history, day in the life. Recreated room so you can see what it would like. Have a simulated sound. Battery 519 Indoor Tour – Fort Miles Historical (fortmilesha.org) 20 person limit per tour.
- Cost? There is a fee. $5 tours.
- Do they have any signage? Lots of signage that help to show what is happening. Give a different opportunity for visual learners.
- Restoration efforts? Years in the making to have this. Taken a lot of effort to. Gun park outside too. Some artefacts. Information and plaques. Have a volunteer group that is very interested in preserving. Get it started. History buffs.
- Fort Miles Association is a volunteer group that helps with preservation efforts.
- Do they have full time people offering tours? A full-time staff and several casual season people and interns.
- Borrow a bike program? Also a volunteer program. Independent of the nature center. All staffed by park. Bikes probably donated. Bike Barn. Information they need to sign. Leave personal information and give their license. Always a staff person. Gift shop, bike barn, worked out well.
- You have to have a pass on your car to enter. Or you pay at a booth during the season. Parking lots at various locations. Sometimes have too many.

Chatanooga Preserve

Chattanooga Preserve - Chattanooga, TN.

- “Over time, the bunkers have become integrated into the landscape, complete with trees growing on top. Three bunkers are open to the public. With a single entrance, these structures feel like human-made caves with a distinctly parabolic dish quality. Go inside and whisper, sing or even tap dance to hear what it’s like to actually stand on the inside of an echo!”

[WWII Storage Bunkers at Enterprise South Nature Park in Chattanooga - Blue Ridge Country]

Programming ideas

- Sleep overnight option
- Parking management. Keep people from parking on the grass
- Grilling or no grilling
- Tours, Bird tours, programming person?
- Digital experiences. Guided tour.

- How long are people staying? People don’t stay that long.
- Parking fees differ by whether in-state or not
- Pay for parking attendant to keep from parking on grass.
- Add hunting. Make sure segregated away. What to do about that use?
- Parking ideas.
- Advantages and disadvantages of the different programming options.

- How do case studies get involved?
- Should we have a separate page on parking and circulation?
- Add your ideas to Alyssa’s booklet

BETA
IMPROVING COMMUNITIES TOGETHER

12 Beavertail State Park Wildlife Inventory - 2021

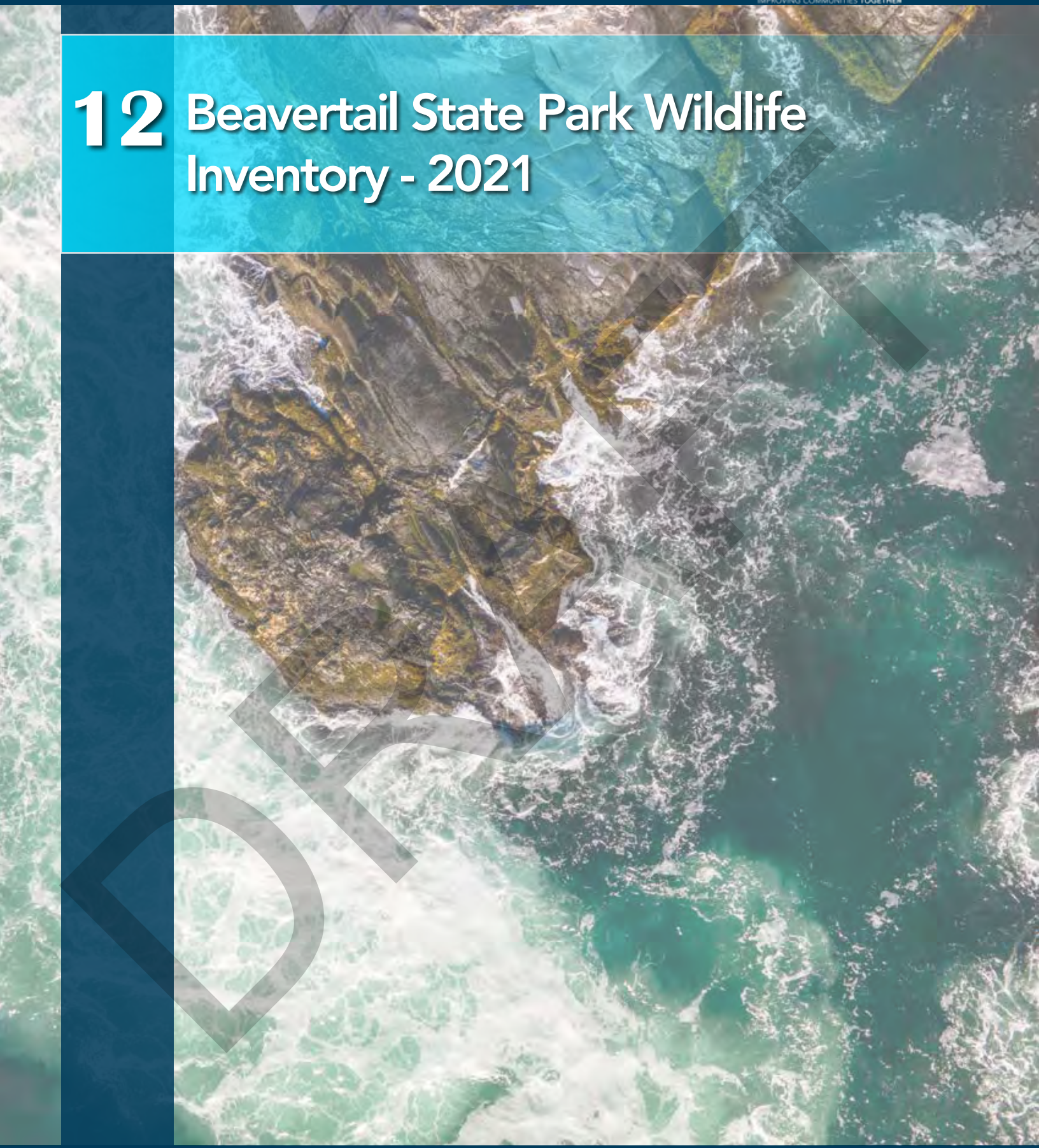


Table 1: Observed Wilflife Summary Table at Beavertail State Park, Jamestown, RI

These tables were produced by biologists from Applied Bio-Systems. Over the course of several visits from 2021-2022, Applied Bio-Systems documented bird, mammal, and fish species that were seen throughout the park.

Birds	
common name	**scientific name**
American crow	*Corvus brachyrhynchos*
American goldfinch	*Spinus tristis*
American redstart	*Setophaga ruticilla*
American robin	*Turdus migratorius*
barn swallow	*Hirundo rustica*
black-capped chickadee	*Poecile atricapillus*
blue jay	*Cyanocitta cristata*
brown-headed cowbird	*Molothrus ater*
bufflehead	*Bucephala albeola*
Carolina wren	*Thryothorus ludovicianus*
cedar waxwing	*Bombycilla cedrorum*
chimney swift	*Chaetura pelagica*
chipping sparrow	*Spizella passerina*
common eider	*Somateria mollissima*
common loon	*Gavia immer*

common name	**scientific name**
common yellowthroat	*Geothlypis trichas*
cooper's hawk	*Accipiter cooperii*
dark-eyed junco	*Junco hyemalis*
double-crested cormorant	*Phalacrocorax auritus*
eastern towhee	*Pipilo erythrophthalmus*
European starling	*Sturnus vulgaris*
gray catbird	*Dumetella carolinensis*
great black-backed gull	*Larus marinus*
harlequin duck	*Histrionicus histrionicus*
herring gull	*Larus argentatus*
house finch	*Haemorhous mexicanus*
house wren	*Troglodytes aedon*
least flycatcher	*Empidonax minimus*
least tern	*Sternula antillarum*
mourning dove	*Zenaida macroura*

common name	**scientific name**
northern cardinal	*Cardinalis cardinalis*
northern rough-winged swallow	*Stelgidopteryx serripennis*
osprey	*Pandion haliaetus*
pine warbler	*Setophaga pinus*
prairie warbler	*Setophaga discolor*
purple sandpiper	*Calidris maritima*
red-throated loon	*Gavia stellata*
red-winged blackbird	*Agelaius phoeniceus*
snowy owl	*Bubo scandiacus*
song sparrow	*Melospiza melodia*
surf scoter	*Melanitta perspicillata*
tree swallow	*Tachycineta bicolor*
white-eyed vireo	*Vireo griseus*
yellow warbler	*Setophaga petechia*

Mammals	
common name	**scientific name**
American woodchuck	*Marmota monax*
Eastern cottontail	*Sylvilagus floridanus*
grey seal	*Halichoerus grypus*
white-tailed deer	*Odocoileus virginianus*

Fish	
common name	**scientific name**
striped bass	*Morone saxatilis*

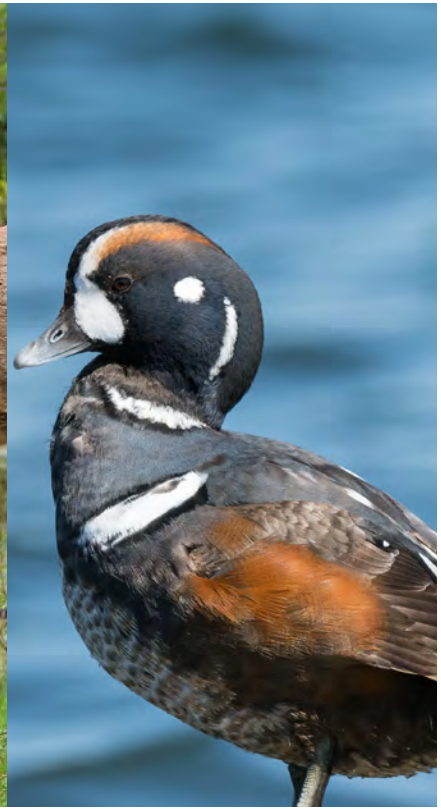


Table 2: Observed Wilflife on December 15,2021 at Beavertail State Park, Jamestown, RI

December 15, 2021-- Field Inspection			
Weather: 37 degrees F, sunny, SW 5 MPH			
Time: 9:15AM-11:30AM			
Birds			
common name	**scientific name**	**# of individuals**	**location/activity/notes**
herring gull	*Larus argentatus*	20	flying
double-crested cormorant	*Phalacrocorax auritus*	6	fly over water
song sparrow	*Melospiza melodia*	10	heard call, flying
tree swallow	*Tachycineta bicolor*	8	fly overhead
dark-eyed junco	*Junco hyemalis*	1	on ground
common loon	*Gavia immer*	5	rest in water, diving
common eider	*Somateria mollissima*	70	in water, rest
harlequin duck	*Histrionicus histrionicus*	10	locomotion, rest on rock
bufflehead	*Bucephala albeola*	7	fly over water
great black-backed gull	*Larus marinus*	5	rest
surf scoter	*Melanitta perspicillata*	3	rest, preening
gray catbird	*Dumetella carolinensis*	2	heard call
American robin	*Turdus migratorius*	1	heard call
American crow	*Corvus brachyrhynchos*	1	rest on branch
Carolina wren	*Thryothorus ludovicianus*	1	heard call
Mammals			
common name	**scientific name**	**# of individuals**	**location/activity/notes**
grey seal	*Halichoerus grypus*	1	poked head out of water

Table 3: Observed Wilflife on April 26, 2022 at Beavertail State Park, Jamestown, RI

April 26, 2022-- Field Inspection			
Weather: 50 degrees F, cloudy, NW 10 MPH			
Time: 10:45AM-12:45PM			
Birds			
common name	**scientific name**	**# of individuals**	**location/activity/notes**
American robin	*Turdus migratorius*	10	in field, in trees
herring gull	*Larus argentatus*	5	fly over, on rock in water
northern cardinal	*Cardinalis cardinalis*	2	in tree
eastern towhee	*Pipilo erythrophthalmus*	6	heard call
song sparrow	*Melospiza melodia*	3	heard call, in shrubs
American goldfinch	*Spinus tristis*	3	heard call
blue jay	*Cyanocitta cristata*	2	fly over
American crow	*Corvus brachyrhynchos*	2	heard call
osprey	*Pandion haliaetus*	2	fly over, nest on top of cell tower
mourning dove	*Zenaida macroura*	2	fly over
pine warbler	*Setophaga pinus*	1	heard call
chipping sparrow	*Spizella passerina*	2	in field
brown-headed cowbird	*Molothrus ater*	6	in field
red-winged blackbird	*Agelaius phoeniceus*	2	on shrub
Mammals			
common name	**scientific name**	**# of individuals**	**location/activity/notes**
white-tailed deer	*Odocoileus virginianus*	n/a	tracks spotted on ground
American woodchuck	*Marmota monax*	n/a	evidence of holes in ground

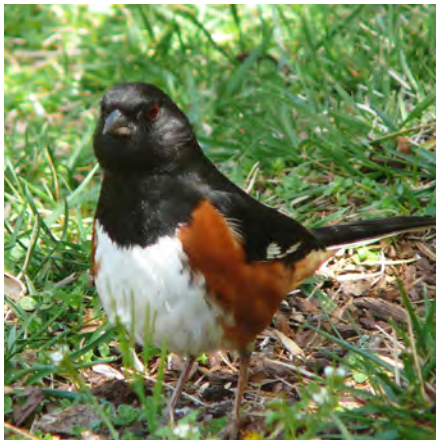


Table 4: Observed Wilflife on May 6, 2022 at Beavertail State Park, Jamestown, RI

May 6, 2022			
Weather:			
Time:			
Birds			
common name	**scientific name**	**# of individuals**	**location/activity/notes**
snowy owl	*Bubo scandiacus*	1	on rocks by coast
great black-backed gull	*Larus marinus*		
red-winged blackbird	*Agelaius phoeniceus*		
song sparrow	*Melospiza melodia*		
osprey	*Pandion haliaetus*		
American robin	*Turdus migratorius*		
double-crested cormorant	*Phalacrocorax auritus*		
Fish			
common name	**scientific name**	**# of individuals**	**location/activity/notes**
striped bass	*Morone saxatilis*		

Table 5: Observed Wilflife on May 18, 2022 at Beavertail State Park, Jamestown, RI

May 18, 2022-- Field Inspection			
Weather: 65 degrees F, sunny, SE 10 MPH			
Time: 11:45AM-3:30PM			
Birds			
common name	**scientific name**	**# of individuals**	**location/activity/notes**
herring gull	*Larus argentatus*	12	fly over, on rocks
song sparrow	*Melospiza melodia*	9	heard call, in shrubs
yellow warbler	*Setophaga petechia*	7	heard call, in shrubs
osprey	*Pandion haliaetus*	3	fly over water, in nest
American robin	*Turdus migratorius*	12	heard call, in field, on path
brown-headed cowbird	*Molothrus ater*	3	fly over field
gray catbird	*Dumetella carolinensis*	15	heard call, in shrubs
white-eyed vireo	*Vireo griseus*	2	in shrubs, heard call
house finch	*Haemorhous mexicanus*	1	in tree
cooper's hawk	*Accipiter cooperii*	1	flying above shrubs
American redstart	*Setophaga ruticilla*	2	in conifer tree
prairie warbler	*Setophaga discolor*	3	heard call, in tree
double-crested cormorant	*Phalacrocorax auritus*	8	fly over water, rest, feeding
American goldfinch	*Spinus tristis*	3	fly over, in shrubs
common loon	*Gavia immer*	1	preening, diving in water
great black-backed gull	*Larus marinus*	7	fly over, rest in water, on rocks
eastern towhee	*Pipilo erythrophthalmus*	5	heard call, on ground
house wren	*Troglodytes aedon*	1	heard call
common yellowthroat	*Geothlypis trichas*	1	heard call
black-capped chickadee	*Poecile atricapillus*	4	heard call
northern rough-winged swallow	*Stelgidopteryx serripennis*	5	flying above, on tree branch
least tern	*Sternula antillarum*	3	diving in water, fly over water
red-throated loon	*Gavia stellata*	4	locomotion in water
blue jay	*Cyanocitta cristata*	1	fly over
red-winged blackbird	*Agelaius phoeniceus*	5	on shrubs by water
northern cardinal	*Cardinalis cardinalis*	1	heard call
barn swallow	*Hirundo rustica*	2	on shrub by water
purple sandpiper	*Calidris maritima*	4	on rocks by lighthouse
Mammals			
common name	**scientific name**	**# of individuals**	**location/activity/notes**
Eastern cottontail	*Sylvilagus floridanus*	3	on path of power easement

Table 6: Observed Wilflife on June 21, 2022 at Beavertail State Park, Jamestown, RI

June 21, 2022-- Field Inspection			
Weather: 65 degrees F, fair, NW 13 MPH			
Time: 2:00PM-3:30PM			
Birds			
common name	**scientific name**	**# of individuals**	**location/activity/notes**
gray catbird	*Dumetella carolinensis*	7	heard call, in shrubs
American robin	*Turdus migratorius*	13	heard call, in field, on path
yellow warbler	*Setophaga petechia*	7	heard call, in shrubs
brown-headed cowbird	*Molothrus ater*	4	in field by parking lot
barn swallow	*Hirundo rustica*	5	flying over field
pine warbler	*Setophaga pinus*	1	heard call
eastern towhee	*Pipilo erythrophthalmus*	6	heard call, on ground
herring gull	*Larus argentatus*	5	fly over
northern cardinal	*Cardinalis cardinalis*	3	heard call, in tree
song sparrow	*Melospiza melodia*	5	heard call, in tree
American goldfinch	*Spinus tristis*	5	heard call, in tree
blue jay	*Cyanocitta cristata*	4	heard call
black-capped chickadee	*Poecile atricapillus*	3	heard call, in trees
prairie warbler	*Setophaga discolor*	2	heard call
American crow	*Corvus brachyrhynchos*	3	heard call
double-crested cormorant	*Phalacrocorax auritus*	2	feeding in water
cedar waxwing	*Bombycilla cedrorum*	5	heard call, fly over, in tree
common yellowthroat	*Geothlypis trichas*	2	heard call
great black-backed gull	*Larus marinus*	1	fly over
osprey	*Pandion haliaetus*	2	in nest
chimney swift	*Chaetura pelagica*	3	flying above near power easement
red-winged blackbird	*Agelaius phoeniceus*	1	on tree near power easement
least flycatcher	*Empidonax minimus*	1	on bush
mourning dove	*Zenaida macroura*	2	on ground
American redstart	*Setophaga ruticilla*	2	heard call
chipping sparrow	*Spizella passerina*	1	in tree
European starling	*Sturnus vulgaris*	1	on ground
Mammals			
common name	**scientific name**	**# of individuals**	**location/activity/notes**
Eastern cottontail	*Sylvilagus floridanus*	1	on path of power easement

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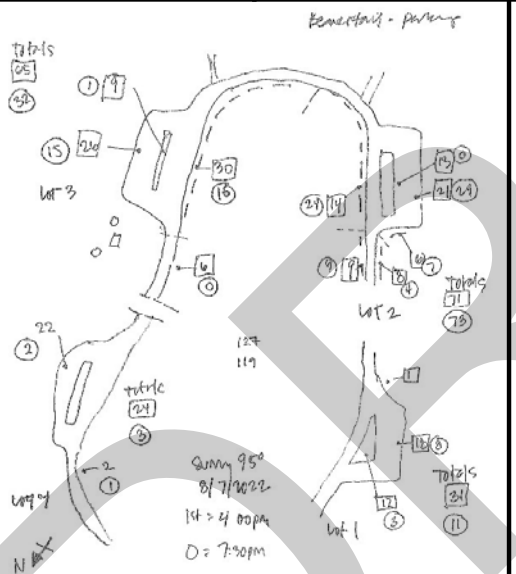
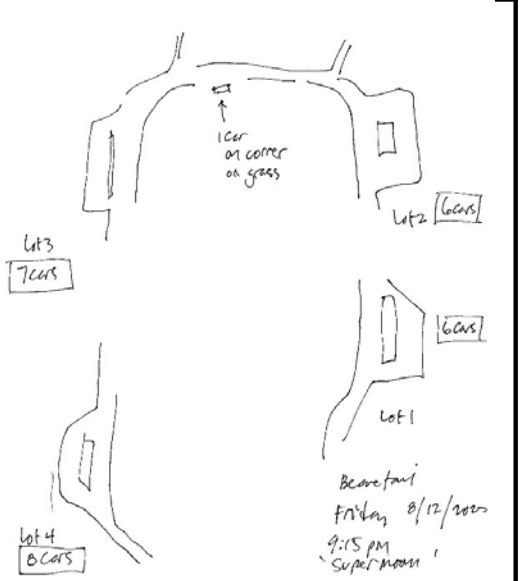
13 Beavertail State Park Parking Inventory

BETA Park Attendance Counts

Cells highlighted in orange represent the lot with the highest amount of vehicles parked in un-designated lawn areas on that particular day.

Day	Friday July 8 4:30	Friday July 15 12:30	Tuesday 19-Jul 12:30	Friday 22-Jul 2:00 PM	Tuesday 2-Aug 12:30 PM	Friday 5-Aug 1:00 PM
Lot 1	12	14	16	18	13	10
Lot 1 grass	-	-	-	1	3	-
Lot 2	20	23	18	26	23	22
Lot 2 grass	-	3	1	5	4	2
Lot 3	12	18	14	11	16	19
Lot 3 grass	9	16	7	12	8	9
Lot 4	10	7	7	8	16	8
Lot 4 grass	-	-	-	-	-	-
Additional Notes	Aquarium staff acknowledged accessibility issues when entering the facility. 100-150 visitors a day in the aquarium.	Observed 2 individuals slip and fall on rocks - Life rings would be a good idea to incorporate on site for situations like this. Overheard a party say 'where are we' - confused with what part of the park they were at. Observed people have trouble making it down to the water. Most individuals sitting on the lawn areas brought umbrellas/ shade tents. Site lacks shade along water.	People traveling in the wrong direction on the driveway when exiting lot 2 (no 'one way' sign when exiting lot). More presence of individuals bringing umbrellas/ tents for shade. Bikes on beavertail raod	Camper parked in lot 3. More umbrellas/ tents/ shade. Bikes on beavertail raod	Camper parked in lot 3	People in parking lot were wearing bathing suits - possibly trying to access the small beach areas on west side. Bikes on beavertail raod

Day	Sunday 7-Aug 4:00 PM	Sunday 7-Aug 7:30 PM	Tuesday 9-Aug 12:30 PM	Friday 12-Aug 4:30 PM	Friday 12-Aug 9:15 pm (supermoon)
Lot 1	18	8	24	23	6
Lot 1 grass	13	4	1	2	-
Lot 2	21	29	23	27	6
Lot 2 grass	50	44	1	13	-
Lot 3	26	15	18	15	7
Lot 3 grass	45	17	6	14	1
Lot 4	22	2	9	8	8
Lot 4 grass	2	1	-	-	-
Additional Notes			campers in lot 3 on grass		

Day	Saturday 13-Aug 10:30 AM	Tuesday 16-Aug 4:30 PM	Friday 26-Aug 4:30pm	Thursday 1-Sep 8pm	Monday Sept 5 - labor day 6pm
Lot 1	8	9	7	3	1
Lot 1 grass	-	-	1	-	-
Lot 2	23	12	19	8	5
Lot 2 grass	1	8	6	6	1
Lot 3	12	14	5	8	2
Lot 3 grass	14	4	13	1	-
Lot 4	9	5	3	2	-
Lot 4 grass	-	-	-	-	-
Additional Notes		Jogging along entrance drive loop. Bikes on beavertail road	Bicycle on entrance drive. camper at lot 1. kites near lot 3. Gathering at point with alcohol - group of maybe 20 individuals		person on bicycle

Day	Tuesday 6-Sep 6:30pm	Tuesday 18-Oct 7:15 AM	Thursday 27-Oct 2:45 PM	Friday 4-Nov 2:00 PM	Friday 13-Feb 11:30 PM
Lot 1	-	1	7	6	8
Lot 1 grass	-	-	1	-	-
Lot 2	2	-	14	18	9
Lot 2 grass	-	-	3	2	-
Lot 3	2	-	12	14	7
Lot 3 grass	1	-	2	3	-
Lot 4	2	-	8	-	2
Lot 4 grass	-	-	-	-	-
Additional Notes			Unseasonably warm	Unseasonably warm	Unseasonably warm (64 degrees)

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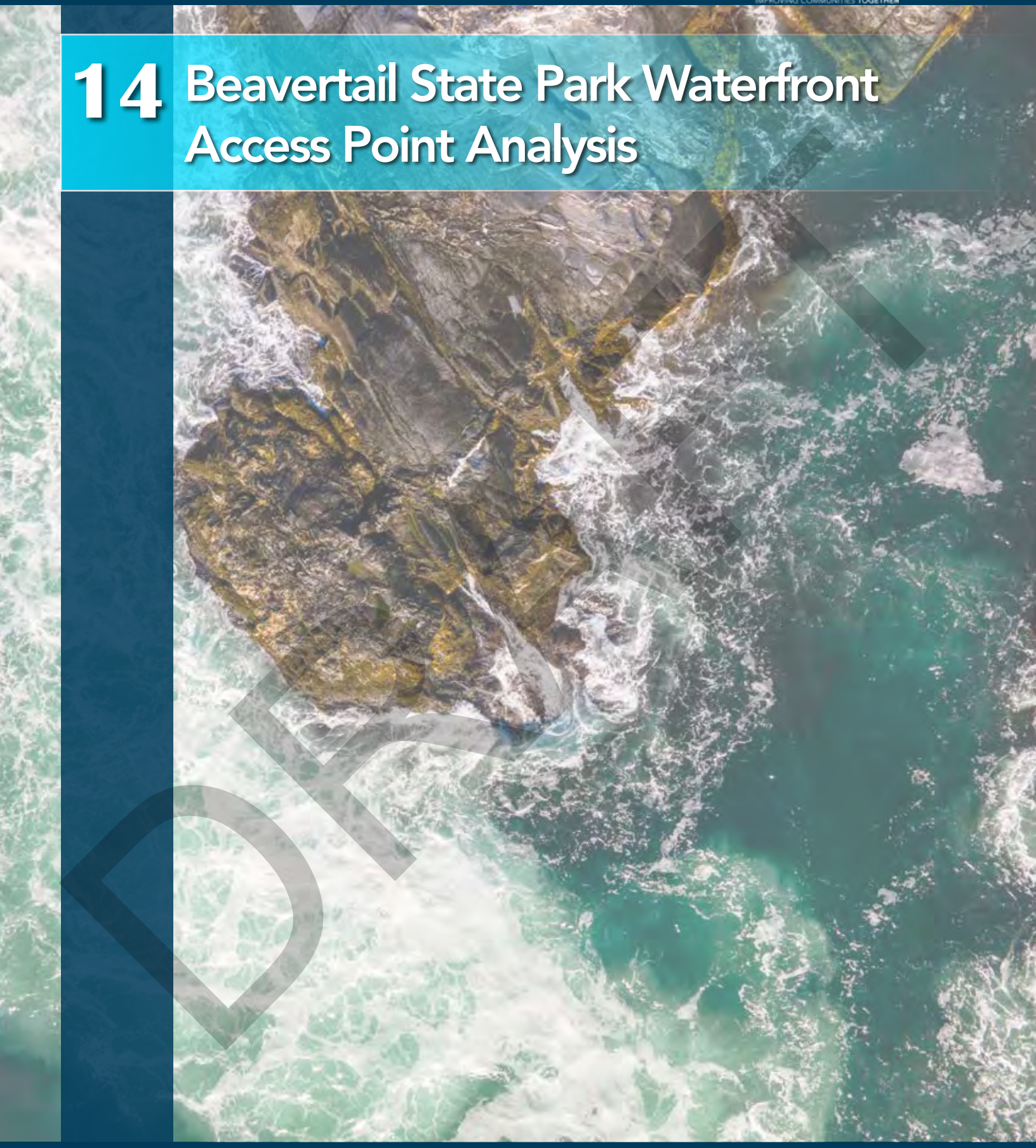
14 Beavertail State Park Waterfront Access Point Analysis



BETA Group team members identified informal waterfront access points created by foot traffic throughout the park. The park has been divided into eight distinct areas, each evaluated using key criteria that guided the team in determining the most suitable solution for each access point. Recommended solutions include the installation of pathways, overlooks, stairs, closures, or a combination of these elements.

Beavertail State Park Master Plan - Shoreline Access Points

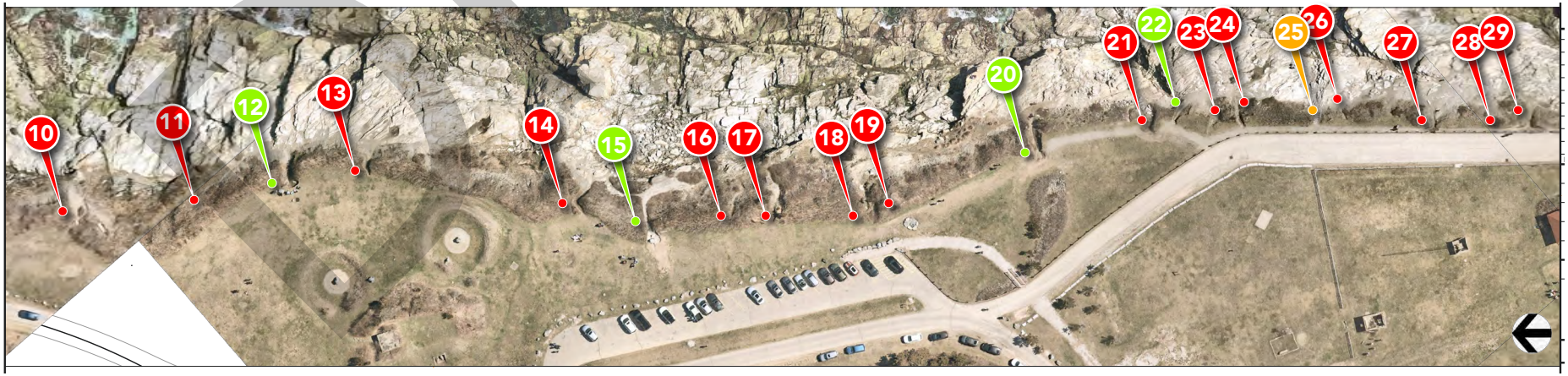
Shoreline Access Location number	Usage	Hazard	Urgency	Complexity	Importance (1-10)	Recommended Action	Grass	Mulch	Stabilized Aggregate	Platform	Stair	Plantings	Fencing	Point Data
1	5	2	3	7	Pathway			SA			PL	F	✓
2	1	1	1	2	Closure						PL	F	
3	3	2	3	5	Overlook Pathway			SA	PF		PL	F	✓
4	1	3	3	4	Pathway			SA			PL	F	
5	1	3	3	4	Closure						PL	F	
6	3	3	3	6	Closure						PL	F	✓
7	5	5	3	10	Closure						PL	F	✓
8	2	1	1	3	Pathway			SA			PL	F	
9	1	1	1	2	Closure						PL	F	

1

Beavertail State Park Master Plan - Shoreline Access Points

Shoreline Access Location number	Usage	Hazard	Urgency	Complexity	Importance (1-10)	Recommended Action	Grass	Mulch	Stabilized Aggregate	Platform	Stair	Plantings	Fencing	Point Data
10	2	4		1	6	Closure						PL	F	
11	1	1		1	2	Closure						PL	F	
12	5	5		3	10	Pathway			SA			PL	F	
13	3	5		3	8	Closure						PL	F	
14	4	4		3	8	Closure						PL	F	
15	5	5		3	10	Pathway			SA			PL	F	
16	1	1		1	2	Closure						PL	F	
17	5	5		3	10	Closure						PL	F	
18	4	2		3	6	Closure						PL	F	
19	1	1		1	2	Closure						PL	F	
20	5	5			10	Pathway			SA			PL	F	✓
21	5	5			10	Closure						PL	F	✓
22	4	5			9	Pathway			SA			PL	F	✓
23	3	3			6	Closure						PL	F	
24	5	5			10	Closure						PL	F	
25	5	5			10	Stairway					ST	PL	F	✓
26	2	4			6	Closure						PL	F	✓
27	5	5			10	Closure						PL	F	✓
28	1	3			4	Closure						PL	F	
29	5	5			10	Closure						PL	F	✓

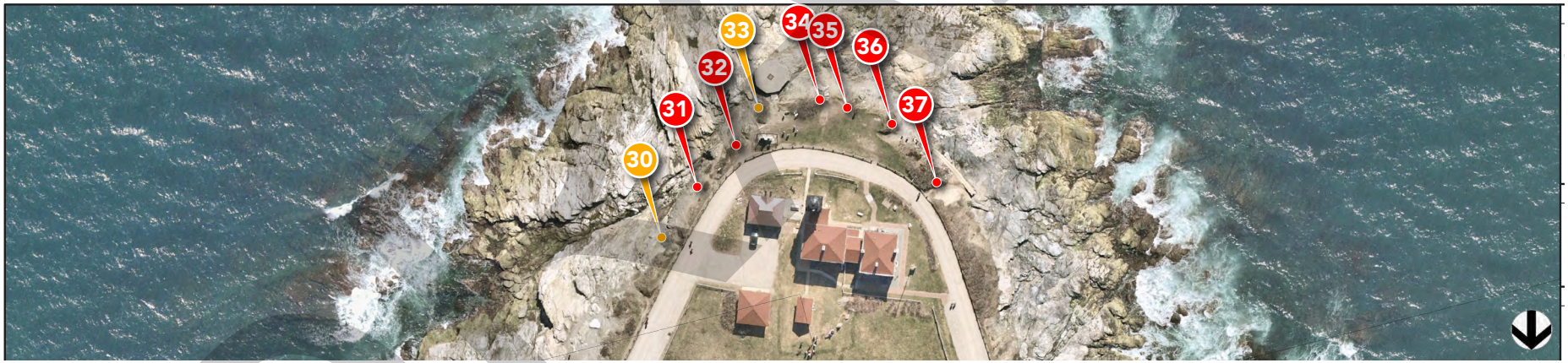
2



Beavertail State Park Master Plan - Shoreline Access Points

Shoreline Access Location number	Usage	Hazard	Urgency	Complexity	Importance (1-10)	Recommended Action	Grass	Mulch	Stabilized Aggregate	Platform	Stair	Plantings	Fencing	Point Data
30	5	5			10	Stairway					ST	PL	F	✓
31	5	5			10	Closure						PL	F	✓
32	5	5			10	Closure						PL	F	
33	5	5			10	Stairway					ST	PL	F	
34	5	5			10	Closure						PL	F	
35	5	5			10	Closure						PL	F	✓
36	5	5			10	Closure						PL	F	✓
37	5	5			10	Closure						PL	F	✓

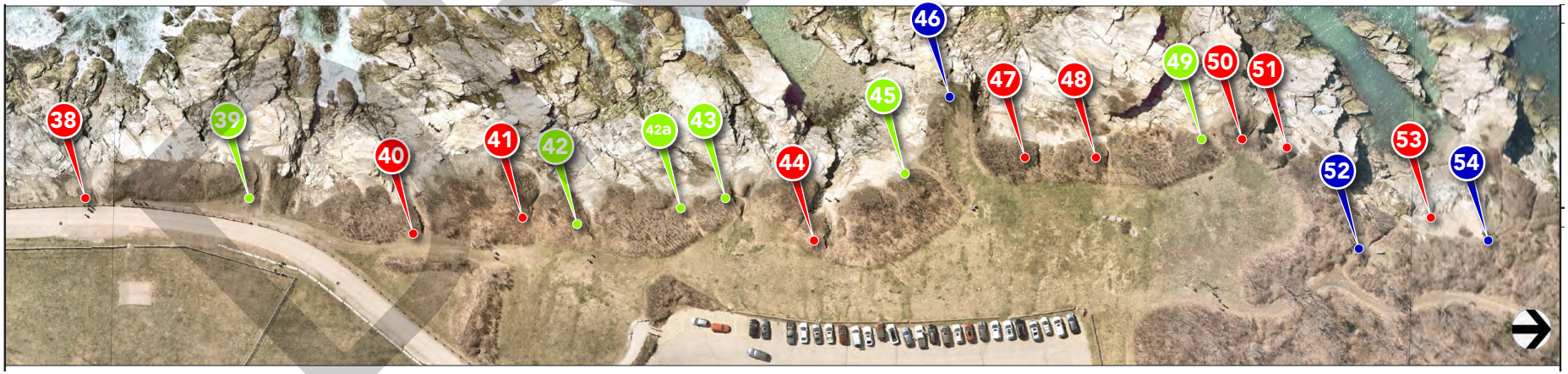
3



Beavertail State Park Master Plan - Shoreline Access Points

Shoreline Access Location number	Usage	Hazard	Urgency	Complexity	Importance (1-10)	Recommended Action	Grass	Mulch	Stabilized Aggregate	Platform	Stair	Plantings	Fencing	Point Data
38	5	3	5		8	Closure						PL	F	✓
39	5	5	3		10	Pathway			SA			PL	F	✓
40	4	5	3		9	Closure						PL	F	
41	3	3	3		6	Closure						PL	F	✓
42	5	3	3		8	Pathway			SA			PL	F	
42a	2	1	1			Closure						PL	F	
43	5	5	5		10	Pathway			SA			PL	F	
44	5	5	3		10	Closure						PL	F	
45	3	3	1		6	Pathway			SA			PL	F	
46	5	5	5		10	Overlook				PF		PL	F	✓
47	2	3	3		5	Closure						PL	F	
48	2	3	3		5	Closure						PL	F	
49	3	3	3		6	Pathway			SA			PL	F	
50	1	2	3		3	Closure						PL	F	
51	1	3	3		4	Closure						PL	F	
52	5	5	3		10	Overlook				PF		PL	F	✓
53	2	5	3		7	Closure						PL	F	
54	2	3	3		5	Overlook				PF		PL	F	

4



Beavertail State Park Master Plan - Shoreline Access Points

Shoreline Access Location number	Usage	Hazard	Urgency	Complexity	Importance (1-10)	Recommended Action	Grass	Mulch	Stabilized Aggregate	Platform	Stair	Plantings	Fencing	Point Data
55	5	5	3		10	Overlook				PF		PL	F	✓
56	1	5	3		6	Overlook		M		PF		PL	F	
57	3	2	1		5	Closure						PL	F	✓
58	3	2	1		5	Closure						PL	F	✓
59	4	2	5		6	Overlook				PF		PL	F	✓
60	3	2	3		5	Closure						PL	F	✓
61	3	2	3		5	Overlook				PF		PL	F	✓
62	3	2	1		5	Closure						PL	F	
63	4	2	3		6	Overlook				PF		PL	F	✓

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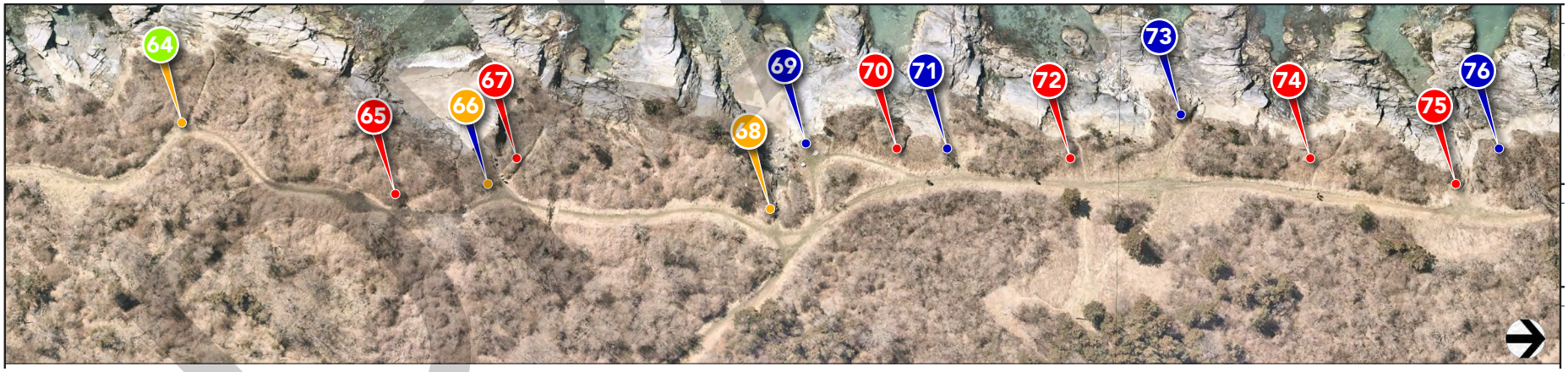
Beavertail State Park Master Plan - Shoreline Access Points

Shoreline Access Location number	Usage	Hazard	Urgency	Complexity	Importance (1-10)	Recommended Action		Grass	Mulch	Stabilized Aggregate	Platform	Stair	Plantings	Fencing	Point Data
64	3	3	3		6	Pathway	Stairway			SA			PL	F	✓
65	1	1	1		2	Closure							PL	F	
66	5	5	3		10	Overlook	Stairway				PF	ST	PL	F	
67	2	3	1		5	Closure							PL	F	
68	5	5	5		10	Stairway						ST	PL	F	
69	5	5	3		10	Overlook					PF		PL	F	✓
70	4	4	1		8	Closure							PL	F	
71	5	3	3		8	Overlook					PF		PL	F	
72	5	3	1		8	Closure							PL	F	
73	5	5	5		10	Overlook					PF		PL	F	✓
74	4	3	1		7	Closure							PL	F	
75	5	5	5		10	Closure							PL	F	
76	3	2	5		5	Overlook			M		PF		PL	F	



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Beavertail State Park Master Plan - Shoreline Access Points

Shoreline Access Location number	Usage	Hazard	Urgency	Complexity	Importance (1-10)	Recommended Action		Grass	Mulch	Stabilized Aggregate	Platform	Stair	Plantings	Fencing	Point Data
77	5	5	3		10	Overlook	Stairway				PF	ST	PL	F	
78	3	3	3		6	Overlook					PF		PL	F	
79	3	3	1		6	Closure							PL	F	
80	5	3	3		8	Overlook					PF		PL	F	
81	3	2	1		5	Closure							PL	F	
82	4	5	3		9	Overlook					PF		PL	F	

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83	4	5	1		9	Closure							PL	F	
84	3	4	1		7	Closure							PL	F	
85	4	5	3		9	Stairway						ST	PL	F	

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