South Shore Coastal Infrastructure Inventory and Assessment Demonstration Project

Coastal Hazards Commission

Town of Hull

Prepared for:
Office of Coastal Zone Management
Boston, MA

February 28, 2007

Presented by:

Bourne Consulting Engineering
Franklin, Massachusetts

In Association With:

Applied Coastal Research & Engineering, Inc.
Alpha Land Surveying & Engineering Associates

BCE **Bourne Consulting Engineering**
Waterfront Engineers

TABLE OF CONTENTS

TABLE OF CONTENTS

Section I

Town of Hull

Coastal Hazards Infrastructure and Assessment Program

BCE

South Shore Coastal Infrastructure
Inventory and Assessment Demonstration Project
Coastal Hazards Commission

Section I – Coastal Hazards Infrastructure and Assessment Program

INTRODUCTION

The Project and Client

The Commonwealth of Massachusetts has initiated a Coastal Hazards Commission (CHC) to identify the vulnerability of the state to coastal hazards. As one of five working groups working under the CHC, the 20-Yr Infrastructure Plan was to establish a prioritization for the repair of coastal structures. The focus areas of the Working Group include:

- Publicly owned infrastructure
- Infrastructure for which State is responsible
- Inventory of public hazards infrastructure
- Evaluation on conditions
- Development for a prioritization of work
- Estimation of capital and maintenance costs

The 20-Yr Infrastructure Working Group is led by Representative Frank Hynes with CZM as the lead State Agency overseeing the management of the project. The region included in the demonstration project was identified as the South Shore and included the eight communities of Hingham, Hull, Cohasset, Scituate, Marshfield, Duxbury, Kingston and Plymouth.

Consultant Team

The consultant team that performed the demonstration project was led by Bourne Consulting Engineering (***BCE***) of Franklin, MA who was responsible for overall project management, research and field assessments. Assisting ***BCE*** was Applied Coastal Research and Engineering, Inc. of Mashpee, MA who was responsible for field assessments and GIS data conversion. Alpha Land Surveying and Engineering of Middleboro, MA also supported the Team with field GPS survey.

PURPOSE

Study Purpose

CZM seeks to identify the capacity of Massachusetts coastal structures to resist major coastal storms and prevent storm damage. In working toward this goal, CZM has initiated a program to perform an assessment of Commonwealth owned and/or maintained coastal structures. The first phase of this program is the performance of a demonstration project for coastal structures located on the South Shore. The demonstration project will identify existing structures, their general conditions, ability to provide coastal protection and the probable cost for repairs. The information collected and developed will be incorporated into the MassGIS system to allow use for developing a 20 Year Coastal Infrastructure Plan.

As this is a demonstration project, it will serve as the basis for development of a statewide inventory and assessment of all Commonwealth coastal structures and the needs for their maintenance and/or repair. Incorporated into this project will be the identification of issues and limitations of the investigation and

assessment to achieve the overall goals and what should be included in future investigations/assessments of coastal structures for the other regions.

Goals of Study

The goals of the South Shore Coastal Infrastructure Inventory and Assessment Project include:

- To be used as the model to go forward for assessment of coastal structures for the remainder of the coastal regions
- To identify areas of research and/or assessment that need to be modified for future phases that were not included within the demonstration project
- Complete the study with the final report by November 15, 2006 for submission to the Coastal Hazards Commission
- To identify all the coastal structures the state either owns or has responsibility to maintain for the eight communities included within the study
- Of the structures identified, determine the structure location and characteristics, the structure condition relative to providing coastal protection and the structure importance in relation to what it is protecting.
- To the degree possible, identify the structure elevation and the FIRM mapping flood elevation and category.
- To the degree possible, identify structure owner and available documents from local, state and federal agencies.
- To establish an estimated cost to rehabilitate the coastal structures to provide the level of project established in the structure's original design.
- Provide the information in a format compatible for incorporation into the MassGIS system

Limit of Study

Due to the time constraints and the amount of effort necessary to collect, process and compile the information, the following are identified as limitations of the information presented:

- All property ownership was taken as presumed. No legal investigation of ownership was performed during the project. Property ownership is based on town assessor maps. Where structures were located outshore of assessor map defined property lines, it was assumed to be Town land unless other information indicated otherwise. Where structures were located outshore of Mean Low Water, property is assumed to be State owned.

- The structure ownership was based on assessor maps and research at the local, state and federal levels. Where there was indication of public work on a structure on Town land or on private property, the structure was presumed to be Town owned. Where the structure was on state property, the structure was presumed to be state owned. Where ownership of the structure was not clear but was located on private property, the structure ownership was defined as unknown.

- The study included town and state owned structures as it was assumed that most town owned structures received state funding at some level for construction and/or maintenance.
    - Federal structures were identified but no assessment of conditions or priority was performed.
    - Structures that were determined to be private were not included.
    - Undocumented structures considered to be on private land, but having the potential to have been publicly built and/or maintained, were identified as having an "unknown ownership".

- The prioritizing of structures was based primarily on risk to general infrastructure and density of housing. Infrastructure included was buildings. The study did not consider all infrastructure issues including:
  - No consideration on utility impacts – water, electrical, sewer, gas
  - No consideration of roadway and bridge protection
  - Evacuation routes were not considered within the investigation
  - Location of Emergency Shelters were not included in priority assessments
- Research was performed at the local, state and federal levels. The local research was limited to location and documenting available coastal structure contract drawings. Research at DCR was restricted to available historic construction plans for coastal structures at the MA-DCR Waterways office in Hingham, MA. No investigation of state archives was performed. Research at MA DEP Chp 91 and USACE was limited to recorded permits and licenses found in their files. No investigation was performed at the Registry of Deeds.

DEVELOPMENT OF MassGIS DATABASE ATTRIBUTES

The specific attributes that would be incorporated into the MassGIS system were developed based on the scope of work and the goals to be achieved. The following was established to standardize the data collection and presentation and to allow total flexibility for sorting by attributes in the final GIS database. The attributes identified below were input into a MS Access database which was used to manage the data from all eight communities within a single file.

Database Attributes

- Attribute Descriptions/Definitions

Structure Number: A unique structure number was given to each coastal structure. The number was based on existing numbering systems that include the State Department of Environmental Protection community number followed by the local community assessor's parcel numbering system. The last three digits of the number represent the structure within the parcel. Where structures extend over several parcels, the structure is referenced to a parcel that is approximately in the center of the structure. Where Town assessor's references include letters, those are also included within the structure number. Some communities have block numbering within their numbering system and these are included. Communities without block numbering still have the block numbering included but these are illustrated as all zeros for that specific segment.

Structures that are on Town property, which would otherwise not have a parcel number, are referenced to a parcel that is in the immediate vicinity of the coastal structure.

On this basis, the following is the general numbering convention:

CCC-MMM-PPP-BBB-SSS

Where:	CCC	DEP Community Number
	MMM	Community Map Number
	BBB	Block Number (000 if no block numbering system)
	PPP	Community Parcel Number
	SSS	Structure Number

Property Ownership: All property ownership was on a "presumed" basis as no legal verification of ownership was performed. The ownership of the property was classified under four basic areas which were private ownership (Private), Town ownership (Local), Commonwealth of Massachusetts ownership (State), federal government ownership (Federal) or unknown. Property ownership was based on Town assessor's maps. Where the location was located above Mean Low Water, and not within a defined parcel, the property ownership was presumed to be the Town unless documentation was found to indicate otherwise. Where a structure was located offshore of Mean Low Water, the property ownership was presumed to be the state.

Structure Ownership: The ownership of all structures is presumed as no verification of ownership was performed. Ownership of the structure was determined by research into historic state and federal permits and the entity indicated on the permits as the applicant. Where no other information was found, the following was utilized:

- Structures located on private land but appearing to be significant structures were identified as owned by the Town or as "Unknown". Unknown was used were there was a question of local or private ownership.
- Structures on Town property were assumed to be owned by the Town
- Structures that were located off-shore were presumed to be federally owned
- Structures that were identified as being privately owned were eliminated from the database

Basis of Ownership: The basis of structure ownership was provided to give rationale to the structure ownership and identified the research resource that identified the ownership or the methodology otherwise used. The responses utilized were limited to the following:

- DPW – DPW Employee Interview
- DCR - Contract Drawings
- DEP – Ch 91 License
- USACE – Permits
- Property Ownership
- Offshore Structure

Structure Owner's Name: Ownerships names reflect the presumed owner of publicly owned structures. As this was for public structures only, the ownership was restricted to the community name, the state agency or the federal agency.

Earliest Structure Record: The year of the oldest document located for the structure. The information is determined from the document research performed on the structure from local, state and federal agencies. If no documents could be found than this entry is denoted as 'Unknown". Where documentation of the structure could be found, the date from the oldest document was utilized.

Primary Structure / Secondary Structure: Many of the coastal structures consisted of combined structures which were rated separately. It was typically found that one structure was significantly more predominant (Ex. Bulkhead/Seawall) and was therefore identified as the Primary Structure while a smaller structure might exist in front (ex. Revetment) of it. The type, height and material of each structure are identified separately. The condition of each structure was based on the Primary Structure. Where there was no secondary structure, the fields were left blank.

Structure Type: The structure type was categorized into five basic coastal structure categories which were Bulkhead/Seawall, Revetment, Coastal Beach, Coastal Dune, and Jetty/Groin.

Structure Material: The identification of the coastal structure's material of construction was performed and represents the primary material. Stone structures consisted of both mortared and non-mortared conditions.

Structure Height: Each type of structure was categorized by its visible height in feet which was broken into four specific ranges which are:

< 5 feet 5 to 10 feet 10 to 15 feet >15 feet

Structure Condition: A preliminary assessment of the condition for each structure was performed by the field teams. This was by visual observation only and no detailed investigation was performed. The condition assessments were based on a predefined five level rating system that ranged from Rating A for Excellent Condition to Rating F for Critical Condition. A detailed listing of the conditions and their definitions can be seen in Exhibit A.

Priority Rating: In order to account for the need for protection at any one site, a five level priority rating system was established. This allowed for consideration of public infrastructure protection, density of residential housing for development of structure overall importance for coastal protection. The ratings range from Level 1 for no infrastructure or residence protection to Level 5 for critical inshore infrastructure protection and/or high density residential. The detailed listing and definitions for the priority categories can be seen in Exhibit B.

Structure Repair / Reconstruction Cost: A preliminary estimation of construction costs to maintain or repair structures was made based on the preliminary field assessment of the structures. A Repair Cost Matrix was developed based on structure type, condition, height and material and can be seen in Exhibit C. Once each structure's type, height, and material classifications were determined, the cost per foot for the structure was determine from the Repair Cost Matrix and multiplied by the length of the structure to obtain the estimated repair/restoration cost. The cost matrix repair costs include a 20 percent construction cost contingency as well as 10 percent costs for engineering and permitting.

Structure Length: The length of each structure is provided and utilized in the development of the repair/reconstruction costs. The lengths are given to the nearest foot and taken as the linear distance along the structure, as determined by the GPS location, which takes into account structure angles and curvature.

Structure Elevation: The elevation of structures was determined in feet from existing information where available. The datum used is NAVD 88 and elevations are to the nearest foot. From a previous study much of the south shore coastal structures had elevations defined based on LIDAR mapping data. Where available structure documentation with elevations was found, in areas with no LIDAR data, the information was included within the structure information. Where there was no LIDAR information or existing documentation, the item has been left blank.

> LIDAR (Light Detection and Ranging) is technology that is currently being used for high-resolution topographic mapping by mounting a LIDAR sensor, integrated with Global Positioning System (GPS) and inertial measurement unit (IMU) technology, to the bottom of aircraft and measuring the pulse return rate to determine surface elevations.

FEMA Zone and Elevation: For each structure the FEMA Flood Insurance Rate Maps (FIRM) were researched for their Flood Zone designation and their Base Flood Elevation from the most recent FIRM maps for the specific Town. The elevations are provided in feet on the same datum as the FIRM maps (NGVD) with no adjustments or conversions.

Structure Comments: The engineering team provided a brief description and comment on the structure at the time of the field assessments which is provided in support of the condition rating that was given for the structure.

Pictures: At the time of the field assessments, digital photographs were taken to provide a general overview of the structure. The number of pictures were limited to a maximum of six. The first photograph for each structure is shown on the Structure Assessment Form. The list of all photographs is provided on the form.

Town Documents: Town documents represent the structure information that could be found in the Town's DPW/Engineering Department records. Where particular records could be found, a table of document information was developed and included within the database with limited descriptions.

MA - DCR Documents: MA-DCR documents represent the structure information that could be found within DCR – Waterways office in Hingham Where particular records could be found, a table of document information was developed and included within the database with limited descriptions.

MA - DEP Chp. 91 Licenses: MA-DEP Chapter 91 license documents represent the structure information that could be found within MA-DEP Chp 91 records in Boston. Where particular records could be found, they were scanned as pdf files and attached to the structure through the GIS database information. In addition, a table of license document information was developed and included within the database with limited descriptions

USACE Permits: USACE Permits represent the structure information that could be found within the Army Corp of Engineers regulatory office in Concord, MA. Where particular records could be found, they were scanned as pdf files and attached to the structure through the GIS database information. In addition, a table of license document information was developed and included within the database with limited descriptions.

DEVELOPMENT OF REPAIR / RECONSTRUCTION COSTS

A matrix to be used within the database has been developed to assess likely rehabilitation/repair costs to restore the coastal structures to their original design condition. No attempt was made to assess the level of exposure and associated level of protection that might be required to meet current design standards for these structures. These costs are only an estimation to bring these structures back to their original design intent based on 2006 construction costs.

The development of the cost matrix is based on the following:

Structure Condition Ratings – The condition of the coastal structures was determined in the field by the survey crew which was led by an engineer with waterfront structure assessment and design experience. The definitions of the rating criteria utilized for the assessments is presented elsewhere.

The cost implications for each rating condition are as follows:

- A Rating Structures not requiring any maintenance, repair or rehabilitation cost and would not be expected to experience damage if subject to a major coastal storm event
- B Rating Structures requiring limited or no repair and would be expected to experience only minor damage if subject to a major coastal storm event. The

value of these maintenance costs is assumed to be 10 percent of the construction cost.

- C Rating — Structures requiring moderate to significant level of repair or reconstruction and would be expected to experience significant damage if subject to a major coastal storm event. The structure is presumed to be effective under a major storm event. The value of the repair costs is assumed to be 50 percent of the construction cost.
- D Rating — Structures requiring significant level of rehabilitation or total reconstruction and would be expected to experience significant damage or possibly fail if subject to a major coastal storm event. The value of the repair costs is assumed to be 100 percent of the construction cost.
- F Rating — Structures requiring complete reconstruction and would expect to provide little or no protection from a major coastal storm event. The value of the repair costs is assumed to be 100 percent of the construction cost plus a cost for removal/disposal of the original structure.

Height of Structure – Height of a structure is a major factor in the structure cost and therefore was identified as a significant factor is assessing rehabilitation/repair construction costs. The structures were broken down into four major categories which were:

< 5'	Structures that were less than five feet in height
5'-10'	Structures five to 10 feet in height
10'-15'	Structures over 10 feet to 15 feet in height
> 15'	Structures greater than 15 feet in height – assumed 20 feet typical

Length of Structure – Length is based on field GPS location with measurements rounded to the nearest foot.

Bulkhead / Seawall Structures – These structures are assumed to be constructed out of concrete, steel, stone or wood with each having its own criteria for establishing costs. For each structure type the following was assumed:

- Concrete Seawalls – These walls were assumed to be gravity structures with the volume of concrete used based on the bottom width being one-half of the structure height. Costs of construction were based on a per cubic yard estimate that varied from $350 to $630 per cubic yard depending on the structure height. Values for excavation and demolition of existing structure were also included.
- Stone Seawalls - These walls were treated the same as concrete seawalls and assumed to be gravity structures with the volume of the structure based on the bottom width being one-half of the structure height. Costs of construction were based on a per cubic yard estimate that varied from $350 to $630 per cubic yard depending on the structure height. Values for excavation and demolition of existing structure were also included.
- Steel Bulkheads – Steel bulkheads were presumed to be constructed with steel sheet piling. Tie back systems were presumed for structures 10 feet or greater in height. Shorter walls were assumed to have a cantilever design. The total depth of sheeting was presumed to be two times the exposed height. The cost for construction varied from $40 per square foot to $60 per square foot plus the cost of excavation and demolition.

- Timber Bulkheads – Timber bulkheads were presumed to be constructed with timber piles at eight foot on center, horizontal wales and vertical four inch sheathing. The unit costs for installed materials used were $1,500 per pile and $7.50 per bfm.

Revetment Structures – Revetment structures were presumed to be constructed of dry placed (no concrete) stone with a two on one slope and a horizontal toe and crown equal to the thickness layer established for each height condition. The total thickness of the revetment layers varied from six to ten feet with the cost of armor and under-layer stone assumed to be $50 per ton and the crushed stone base to be $15 per ton.

Groins and Jetties – Groins and jetties were assumed to be the same materials and construction as the revetment structures but would have two sides and therefore double the quantities.

Coastal Beaches – Costs for restoration of Coastal beaches presumed the placement of beach renourishment sands at a 1-on-20 slope over the existing beach conditions. The cost for deposition of sand assumed relatively close source of material and utilized $20 per cubic yard for the material installed.

Coastal Dunes – Restoration of coastal dunes assumed a cross section of renourished sand with a one-on-four slope on one side of a 25 foot width at the defined dune height. The cost for deposition of sand assumed relatively close source of material and utilized $20 per cubic yard for the material installed.

Contingency – A contingency of 20 percent was added to all costs to reflect the unknowns associated with this level of rehabilitation/repair estimating.

Engineering and Regulatory Approvals – A ten percent increase to the cost matrix prices was assessed to represent the engineering design and regulatory approval requirements for the restoration of these structures.

EXHIBIT A

Structure Condition Table – 5 Level Rating System

Preliminary Condition Assessment		Definition Based Upon Perceived Immediacy of Action and Potential to Cause Damage if Not Corrected	Level of Action Required
A	Excellent	'Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm	None
B	Good	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure	Minor
C	Fair	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide additional material for full protection and extended life	Moderate
D	Poor	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.	Major
F	Critical	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.	Immediate

EXHIBIT B

Priority Rating System - 5 Level Rating System

Preliminary Priority Level Assessment		Level Based Upon Perceived Immediacy of Action and Presence of Potential Risk to Inshore Structures if Not Corrected	Level of Action Required
I	None	No Inshore Structures or Residential Dwelling Units Present	Long Term Planning Considerations
II	Low Priority	Inshore Structures Present with Limited potential for Significant Infrastructure Damage	Future Project Consideration
III	Moderate Priority	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)	Consider for Active Project Improvement Listing
IV	High Priority	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)	Consider for Next Project Construction Listing
V	Immediate / Highest Priority	Critical Inshore Structures Present with Potential for Infrastructure Damage and/or High Density Residential Dwellings Conditions of structure may warrant emergency stabilization as failure may result in potential loss of property and/or life. (>10 dwellings impacted / 100 feet of shoreline)	Consider For Immediate Action Due to Public Safety and Welfare Issues

CZM SOUTH SHORE COASTAL INFRASTRUCTURE INVENTORY AND ASSESMENT PROJECT

EXHIBIT C

September 14, 2006

REPAIR / REHABILITATION COSTING DATA

Cost per linear foot of structure

STRUCTURE TYPE	STRUCTURE MATERIALS	STRUCTURE HEIGHT	STRUCTURE CONDITION RATING A	B	C	D	E
BULKHEAD/ SEAWALL	CONCRETE	Under 5 Feet	$0	$84	$425	$850	$983
		5 To 10 Feet	$0	$152	$759	$1,518	$1,782
		10 To 15 Feet	$0	$251	$1,254	$2,508	$2,970
		Over 15 Feet	$0	$396	$1,980	$3,960	$4,752
	STEEL	Under 5 Feet	$0	$54	$273	$546	$680
		5 To 10 Feet	$0	$165	$825	$1,650	$1,848
		10 To 15 Feet	$0	$251	$1,254	$2,508	$2,772
		Over 15 Feet	$0	$343	$1,716	$3,432	$3,795
	STONE	Under 5 Feet	$0	$84	$425	$850	$983
		5 To 10 Feet	$0	$152	$759	$1,518	$1,782
		10 To 15 Feet	$0	$251	$1,254	$2,508	$2,970
		Over 15 Feet	$0	$396	$1,980	$3,960	$4,752
	WOOD	Under 5 Feet	$0	$86	$431	$862	$994
		5 To 10 Feet	$0	$127	$632	$1,265	$1,463
		10 To 15 Feet	$0	$161	$804	$1,608	$1,872
		Over 15 Feet	$0	$202	$1,008	$2,017	$2,380
COASTAL BEACH	SAND	Under 5 Feet	$0	$26	$132	$264	$264
		5 To 10 Feet	$0	$127	$634	$1,267	$1,267
		10 To 15 Feet	$0	$224	$1,122	$2,244	$2,244
		Over 15 Feet	$0	$396	$1,980	$3,960	$3,960
COASTAL DUNE	SAND	Under 5 Feet	$0	$18	$93	$186	$186
		5 To 10 Feet	$0	$48	$238	$476	$476
		10 To 15 Feet	$0	$79	$395	$790	$790
		Over 15 Feet	$0	$132	$660	$1,320	$1,320
REVETMENT	STONE	Under 5 Feet	$0	$66	$333	$664	$730
		5 To 10 Feet	$0	$120	$601	$1,201	$1,300
		10 To 15 Feet	$0	$157	$781	$1,564	$1,696
		Over 15 Feet	$0	$247	$1,234	$2,468	$2,666
GROIN	STONE	Under 5 Feet	$0	$157	$664	$1,328	$1,460
		5 To 10 Feet	$0	$157	$1,201	$2,402	$2,600
		10 To 15 Feet	$0	$157	$1,564	$3,128	$3,392
		Over 15 Feet	$0	$157	$2,468	$4,937	$5,333

NOTE: Repair / Rehabilitation Costs include 10% for engineering and regulatory approvals and 20 % construction contingency.

Section II

Town of Hull

Community Findings

Section II – Community Findings – Town of Hull

COMMUNITY DESCRIPTION

The Town of Hull consists of a land area of only 2.97 square miles out of a total area of 28.2 square miles and had a population of 11,500 in the 2000 census. The Town is located on the South Shore of Massachusetts and its location can be seen on this report's cover. The estimated length of shoreline that is directly exposed to open ocean waves is 9.5 miles with the remaining shoreline semi-protected by offshore structures or landforms. The Town is protected from major coastal storms by both natural and man-made shoreline structures that require maintenance to insure the long term protection of its coastline. The man-made and publicly owned structures that protect the Town were investigated for their ability to provide adequate protection from major coastal storms. Structures have been identified as publicly owned, including coastal dunes and beaches, based on evidence of investment of public funds made to create/enhance/maintain these structures. The assessment did not include floating or pile supported structures as they are assumed not to provide any significant coastal protection from major storm events.

STRUCTURE INVENTORY

Within the Town of Hull, there were 93 publicly owned structures identified which provide significant coastal protection. The location of the structures can be seen in Sheets 1 through Sheet 7 in Section III of this report. The structures were categorized by their type and by their structural condition based on a preliminary field assessment. The distribution of structures by type and condition can be seen in the following table:

STRUCTURE TYPE AND QUANTITY - Town of Hull

Primary Structure (1)	Total Structures	Structure Condition Rating A	B	C	D	F	Total Length
Bulkhead / Seawall	58	4	36	12	5	1	26210
Revetment	27	6	11	7	3		116
Breakwater	2			1			
Groin / Jetty	2			1	1		1783
Coastal Dune							
Coastal Beach							1912
	89	10	47	21	9	1	30021

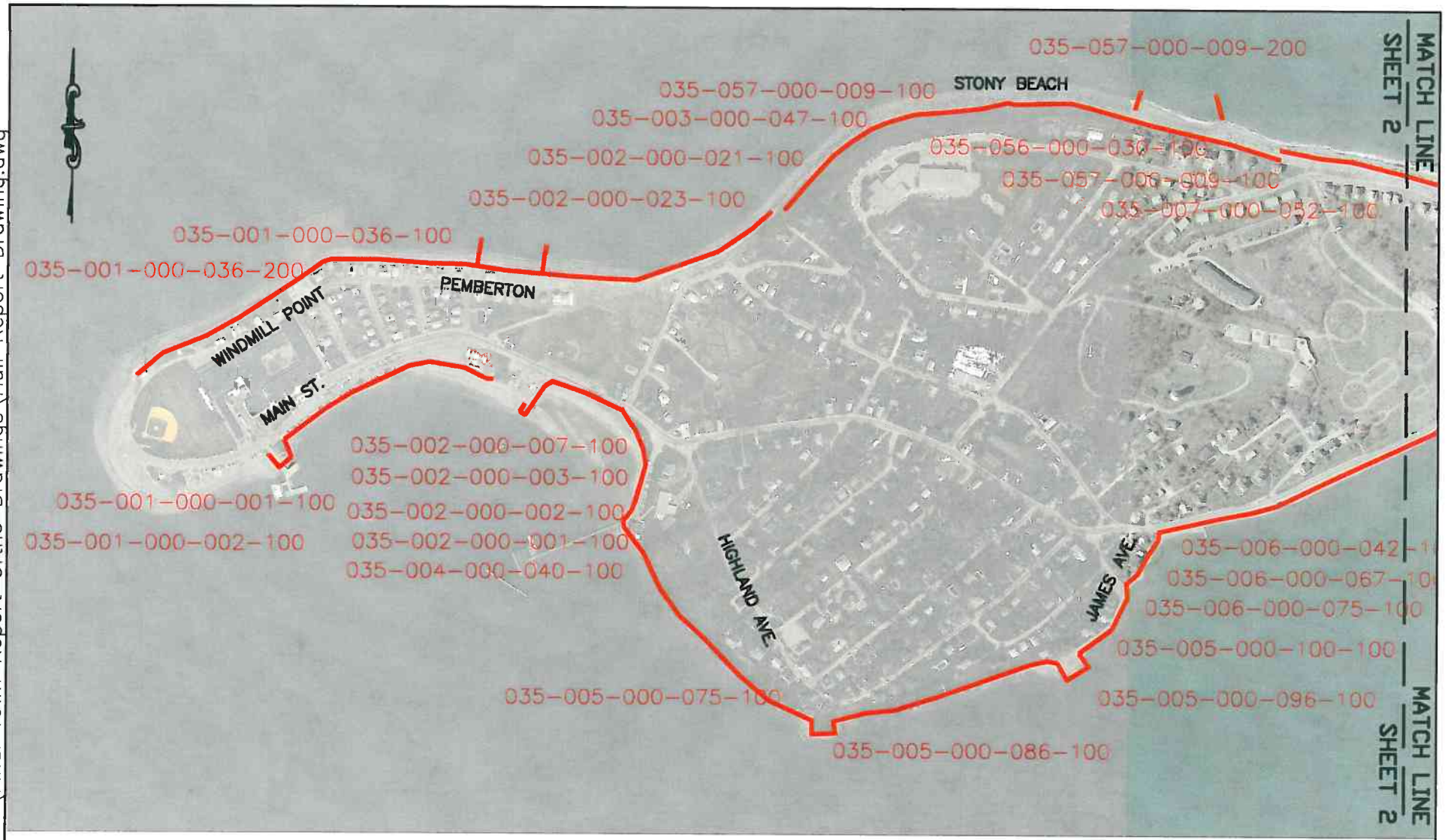
Within the above table, the total length of each type of structure is also provided. The structures are listed by the type which is providing the primary coastal protection. Many sites have multiple structure types at the same location (i.e. revetment in front of seawall). These secondary structures, although not identified within these tables, are included in the development of repair/rehabilitation costs.

The development of repair costs has been included by structure type and by condition. In the Town of Hull's case there are a total of 93 structures which would require approximately $25.3 million to bring all the coastal structures to "A" Rating. Most critical will be the structures in the "D" and "F" classifications as those are assumed to undergo some level of damage or failure during the next major coastal storm event. To reconstruct these structures, identified in the preliminary survey as being in poor condition, an estimated $11.4 million would be required to upgrade the Town's coastal protection.

Section III

Town of Hull

Structure Assessment Reports



COASTAL STRUCTURE LOCATION PLAN

TOWN OF HULL

SOUTH SHORE COASTAL INFRASTRUCTURE INVENTORY AND ASSESSMENT DEMONSTRATION PROJECT

AUGUST 2006

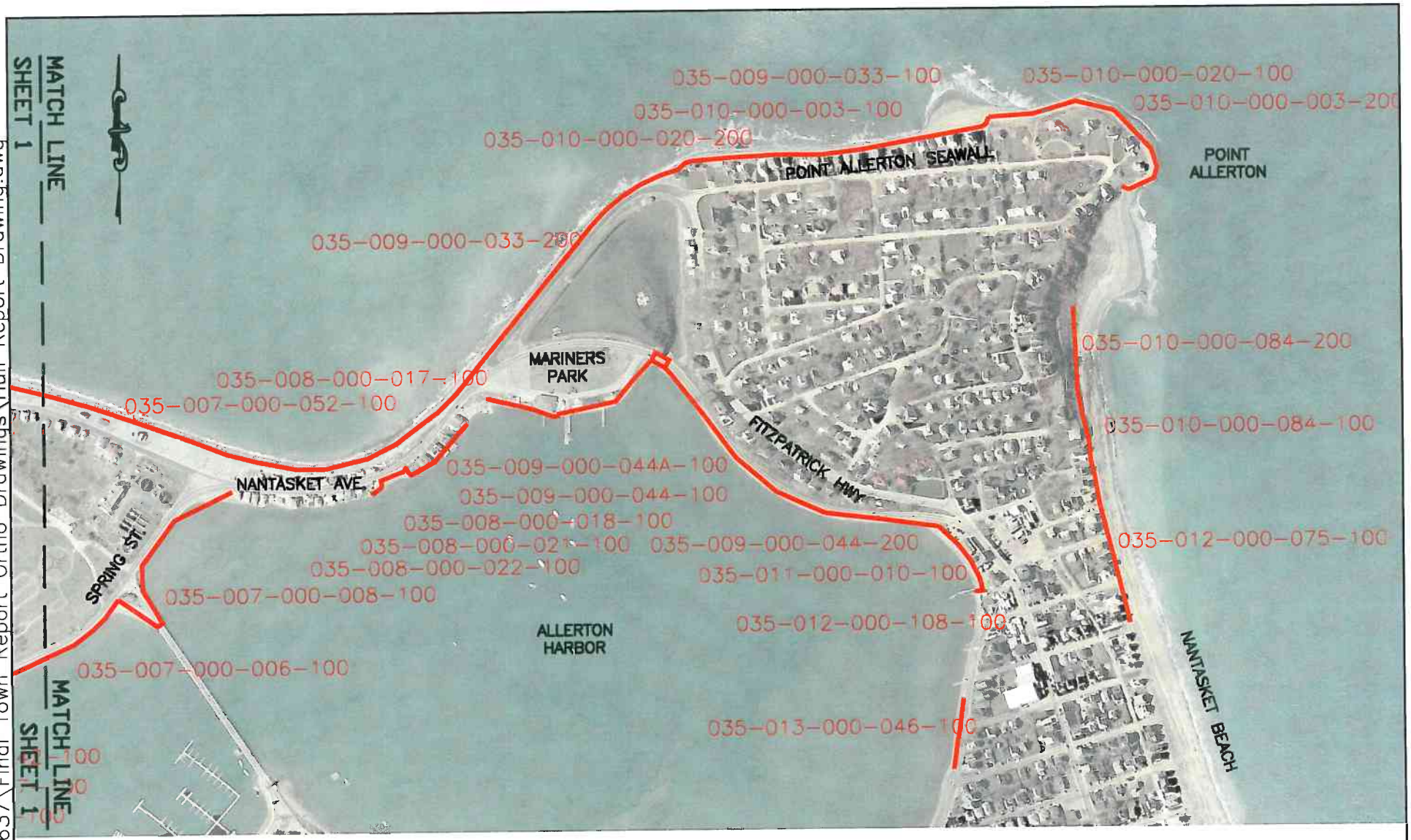
0 200

SCALE: 1" = 200'

BCE Bourne Consulting Engineering

SHEET 1 OF 7

File: X:\26600-\26637\Final Town Report Ortho Drawings\Hull Report Drawing.dwg



File: X:\26600-\26637\Final Town Report Ortho Drawings\Hull Report Drawing.dwg

COASTAL STRUCTURE LOCATION PLAN

TOWN OF HULL

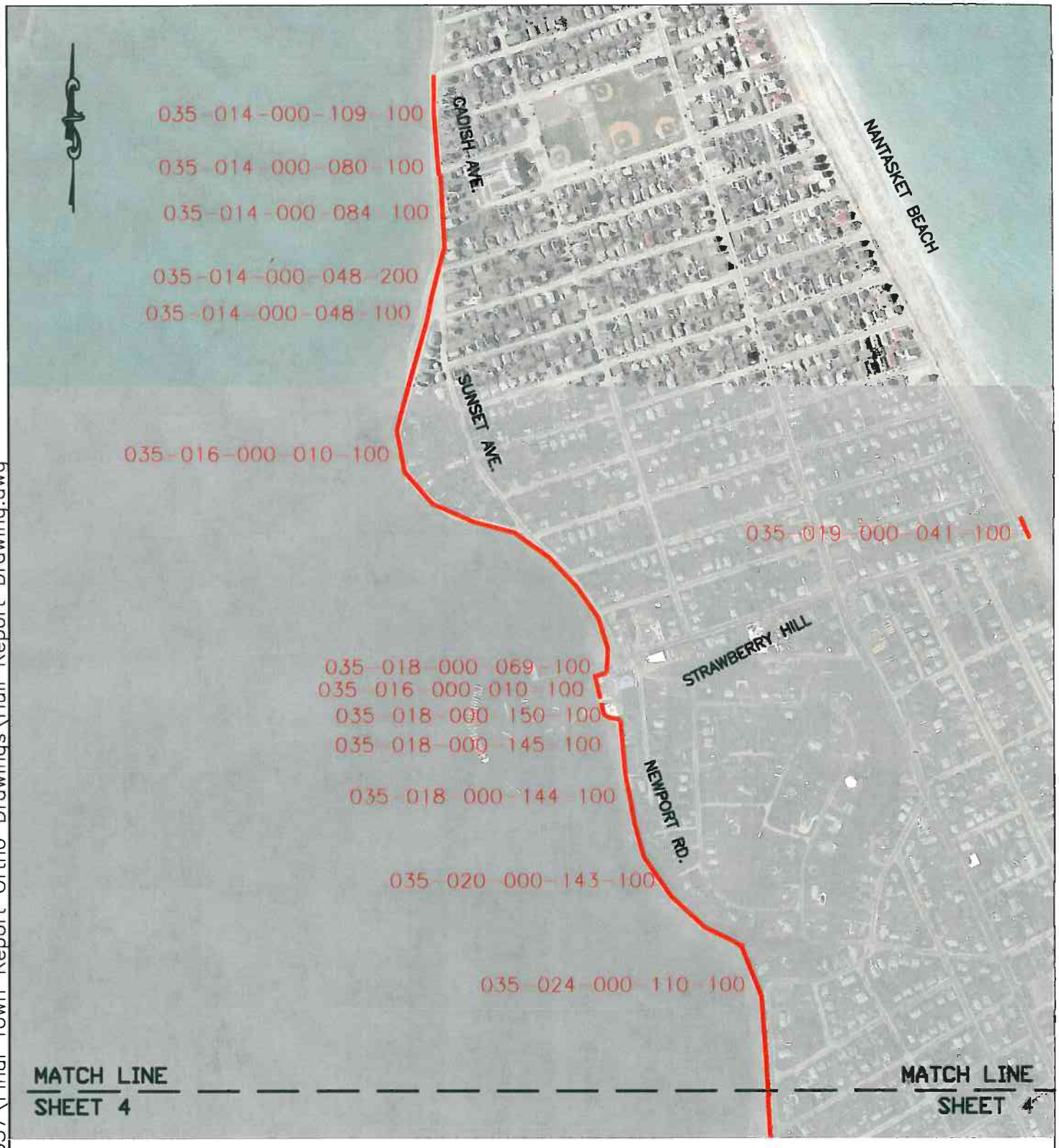
SOUTH SHORE COASTAL INFRASTRUCTURE INVENTORY AND ASSESSMENT DEMONSTRATION PROJECT

AUGUST 2006

0 200

SCALE: 1" = 200'

BCE Bourne Consulting Engineering
366 West Central Street
Franklin, MA 02038
TEL. (508) 528-6135 FAX (508) 528-6171



COASTAL STRUCTURE LOCATION PLAN

TOWN OF HULL

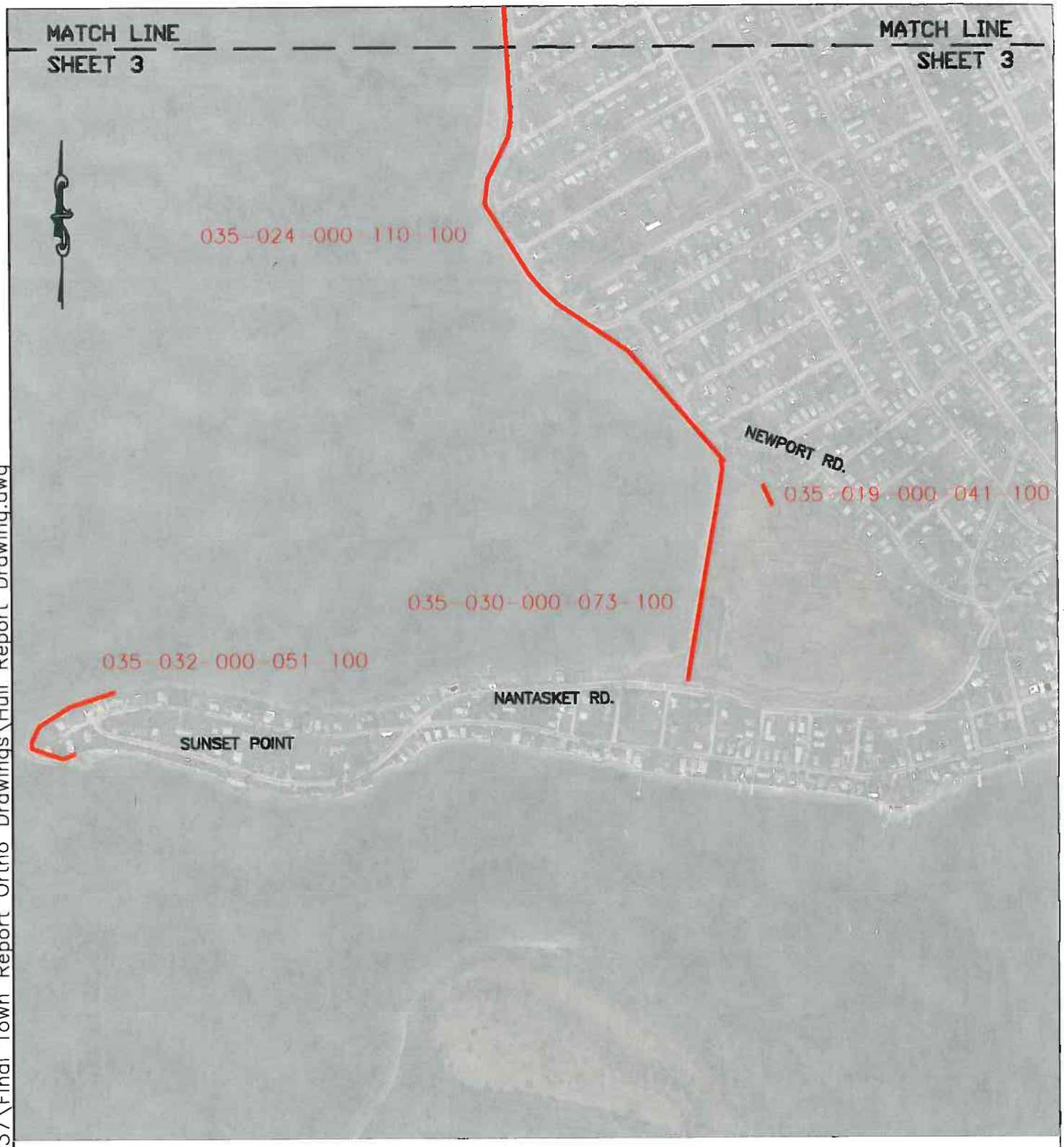
SOUTH SHORE COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT DEMONSTRATION PROJECT
AUGUST 2006

0 200
SCALE: 1" = 200'

BCE Bourne Consulting Engineering

SHEET 3 OF 7

File: X:\26600-\26637\Final Town Report Ortho Drawings\Hull Report Drawing.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF HULL

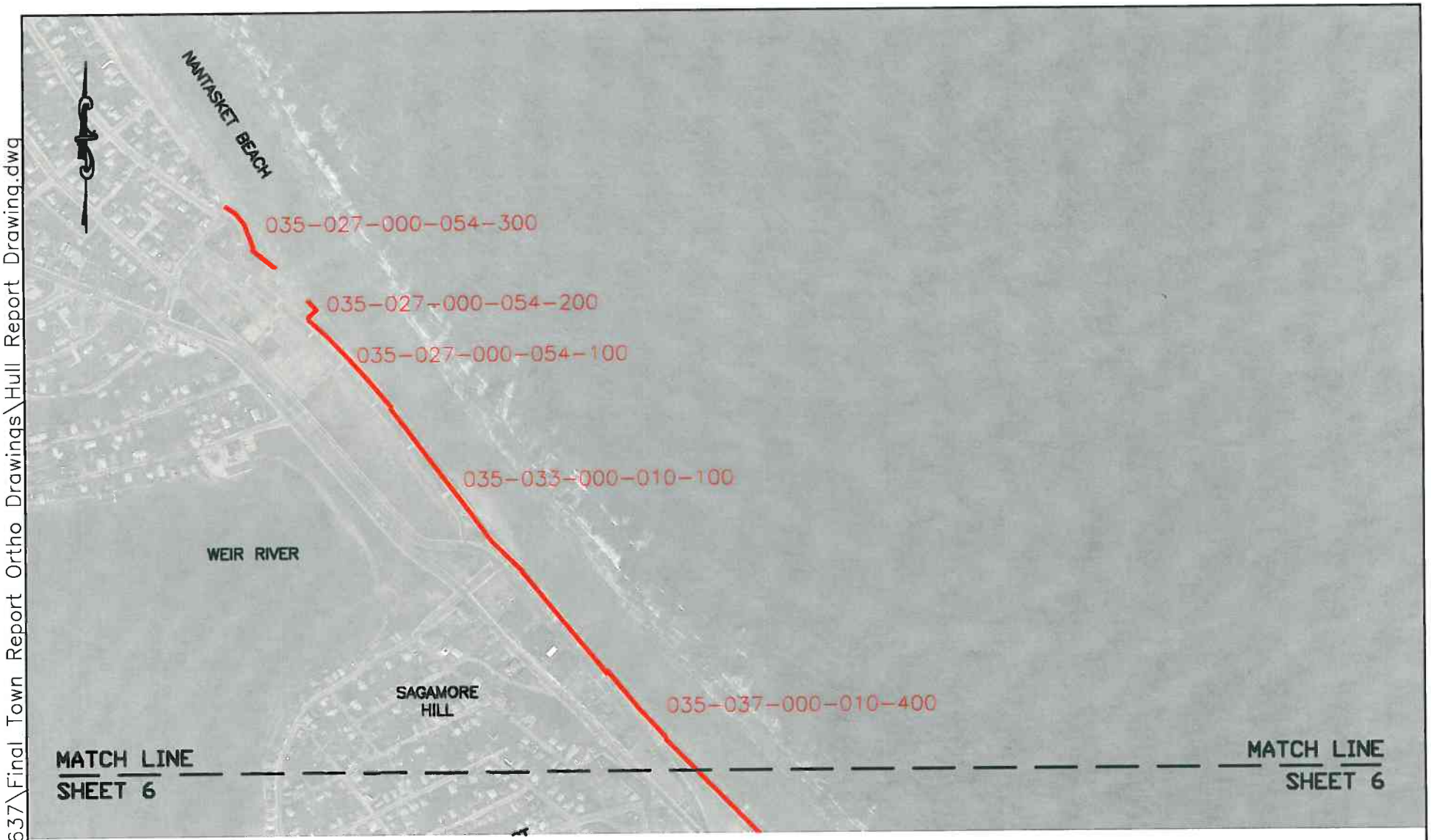
SOUTH SHORE COASTAL INFRASTRUCTURE INVENTORY
AND ASSESSMENT DEMONSTRATION PROJECT
AUGUST 2006

0 200
SCALE: 1" = 200'

BCE Bourne Consulting Engineering

SHEET 4 OF 7

File: X:\26600-\26637\Final Town Report Ortho Drawings\Hull Report Drawing.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF HULL

SOUTH SHORE COASTAL INFRASTRUCTURE INVENTORY AND ASSESSMENT DEMONSTRATION PROJECT

AUGUST 2006

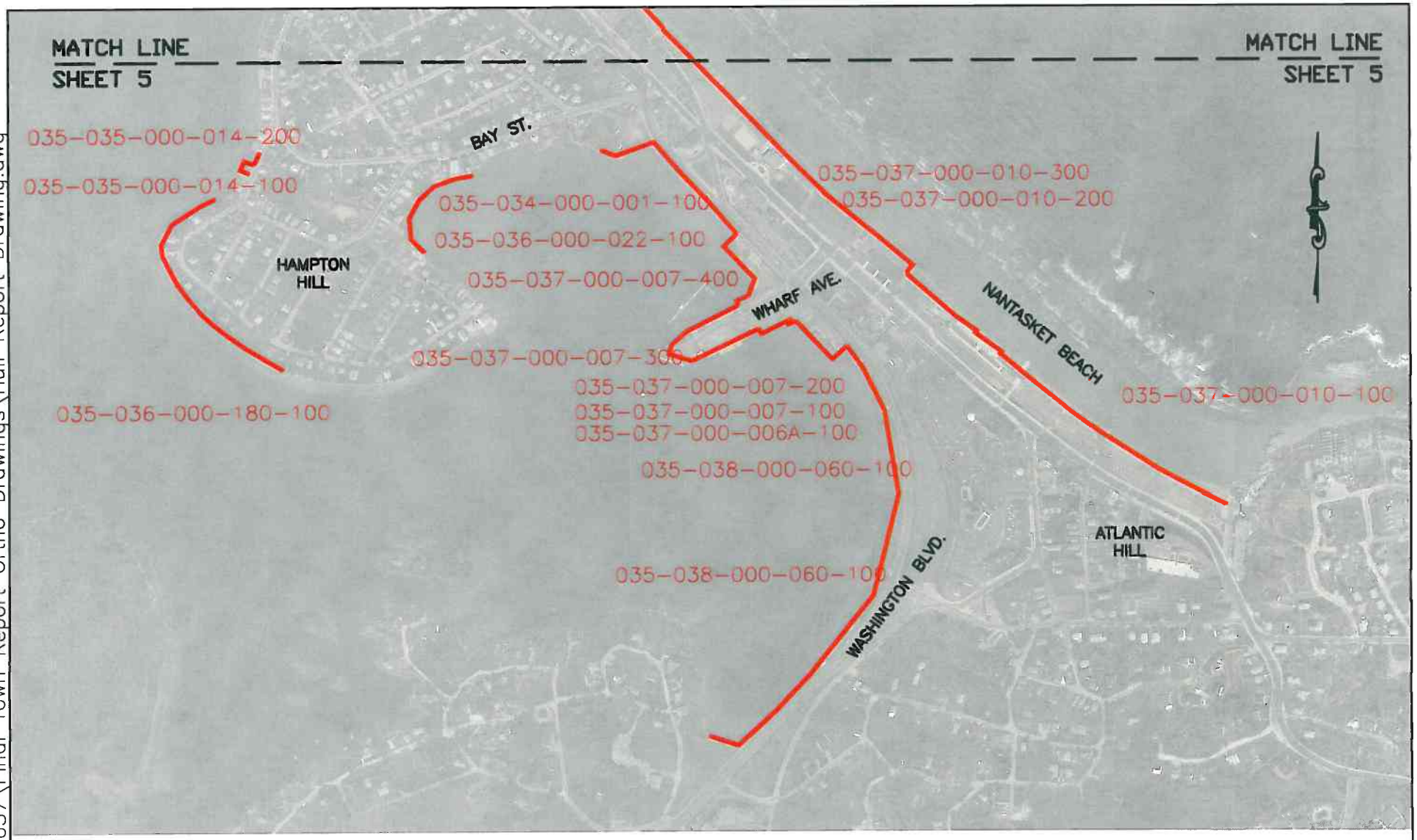
0 200

SCALE: 1" = 200'

Bourne Consulting Engineering

SHEET 5 OF 7

File: X:\26600-\26637\Final Town Report Ortho Drawings\Hull Report Drawing.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF HULL

SOUTH SHORE COASTAL INFRASTRUCTURE INVENTORY AND ASSESSMENT DEMONSTRATION PROJECT

AUGUST 2006

0 200

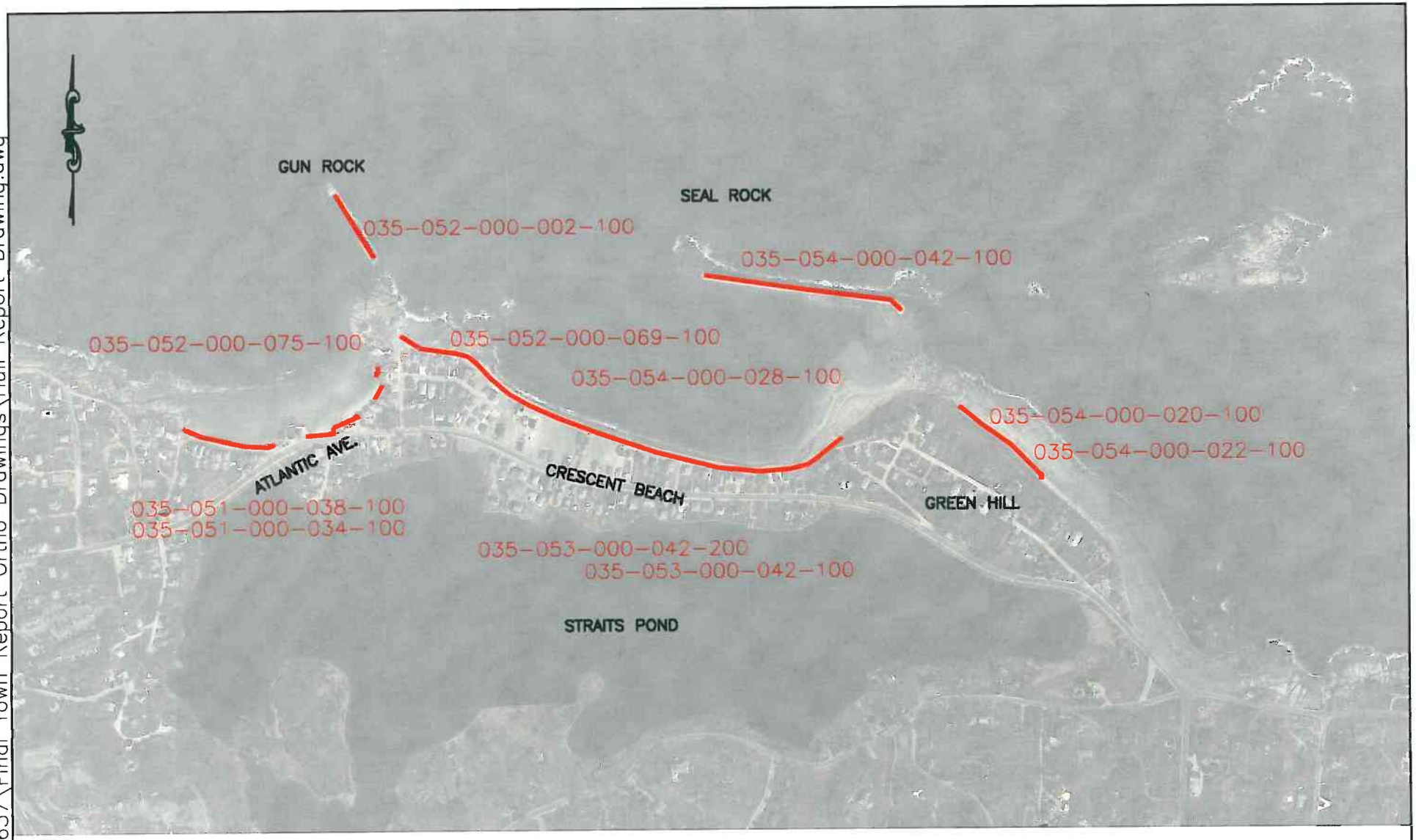
SCALE: 1" = 200'

BCE Bourne Consulting Engineering

[illegible]
[illegible]
TEL. (508) [illegible] FAX. (508) [illegible]

SHEET 6 OF 7

File: X:\26600-\26637\Final Town Report Ortho Drawings\Hull Report Drawing.dwg



COASTAL STRUCTURE LOCATION PLAN

TOWN OF HULL

SOUTH SHORE COASTAL INFRASTRUCTURE INVENTORY AND ASSESSMENT DEMONSTRATION PROJECT

AUGUST 2006

0 200

SCALE: 1" = 200'

Bourne Consulting Engineering

SHEET 7 OF 7

File: X:\26600-\26637\Final Town Report Ortho Drawings\Hull Report Drawing.dwg

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-001-000-001-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Main St.

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $139,201.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
917 Feet	15.5 Feet NAVD 88	A3	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Stone masonry seawall with coastal beach outshore. Mean high water at mid height of stone wall and mortar washed out below mean high water. 2 feet high concrete wall (12 inches wide) along top of stone wall (located 3 feet behind face). Concrete sidewalk behind concrete wall. A few minor voids at stone wall base with fill loss behind.

Condition Rating	B Good	*Priority Rating*	V Immediate / Highest Priority
Level of Action	Minor	*Action*	Consider For Immediate Action Due to Public Safety and Welfare Issues
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	Critical Inshore Structures Present with Potential for Infrastructure Damage and/or High Density Residential Dwellings Condition of structure may warrant emergency stabilization as failure may result in potential loss of property and/or life. (>10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-001-000-001-100-PHO1A.jpg

035-001-000-001-100-PHO1B.jpg

035-001-000-001-100-PHO1C.jpg

Structure Documents:

TOWN OF HULL	JUN 15 1979	MAIN STREET	035-001-000-001-100-TWN1A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-001-000-002-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Main St.

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: USACE – Permits

Owner Name: Hull

Earliest Structure Record: 1990

Estimated Reconstruction/Repair Cost: $20,106.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
238 Feet	10 Feet NAVD 88	A3	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	Under 5 Feet
Secondary Type:	**Secondary Material:**	**Secondary Height:**

Structure Summary :

Mortared stone seawall/abutment for fixed pier. Restaurant and residence on wharf.

Condition Rating	B – Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III – Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-001-000-002-100-PHO1A.jpg

035-001-000-002-100-PHO1B.jpg

Structure Documents:

DEP CH.91	OCT 14 200	PLAN	035-001-000-002-100.LIC1A.pdf
USACE	APR 12 199	PEMBERTON	035-001-000-002-100-COE1A.pdf

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-001-000-036-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Windmill Point

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: DCR - Contract Drawings

Owner Name: Hull

Earliest Structure Record: 1926

Estimated Reconstruction/Repair Cost: $198,884.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
793	13	V4	20
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	

Structure Summary :

5 foot wide concrete seawall with wave break face and placed rip rap outshore. Revetment approximately 25 feet wide by 5 feet high. Average stone size is 1000 to 2000 lbs. Concrete poured along rip rap/wall interface for some sections. Concrete footing for wall exposed about 1 foot in some areas (about 400 feet long).

Condition Rating	B
	Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV
	High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-001-000-036-100-PHO1A.jpg

035-001-000-036-100-PHO1B.jpg

Structure Documents:

Commission on	AUGUST 19	PEMBERTON POINT	035-001-000-036-100-DCR1A
MA DPW	MARCH 193	PROPOSED	035-001-000-036-100-DCR1B
MA DPW	NOV 1938	RIP RAP	035-001-000-036-100-DCR1C
MA DPW	MARCH 195	PROPOSED SHORE	035-001-000-036-100-DCR1D
MA DPW	NOVEMBER	PROPOSED SHORE	035-001-000-036-100-DCR1E
MA DPW	U/R	CONCRETE	035-001-000-036-100-DCR1F
MA DPW	AUG 1926	PEMBERTON POINT	035-001-000-036-100-TWN1A
MA DPW	MAR 1937	PEMBERTON POINT	035-001-000-036-100-TWN1B
MA DPW	NOV 1938	RIP RAP	035-001-000-036-100-TWN1C
MA DPW	MAR 1956	PROPOSED SHORE	035-001-000-036-100-TWN1D
MA DPW	NOV 1958	PROPOSED SHORE	035-001-000-036-100-TWN1E

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-001-000-036-100

Key: community-map-block-parcel-structure

MA DPW		CONCRETE	035-001-000-036-100-TWN1F
TOWN OF HULL	JUN 15 1979	CHANNEL STREET	035-001-000-036-100-TWN1G

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-001-000-036-200

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Windmill Point

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: DCR - Contract Drawings

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $258,073.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
1029 Feet	13 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	

Structure Summary :

4 foot wide concrete seawall with dumped rip rap outshore. Rip rap extended out 15 feet and was 5 feet high. First 200 feet rip rap was poor condition. Average stone size is 1000 lb. stones. Minor cracking (trans.) and surface deterioration of wall. School located behind.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	V Immediate / Highest Priority
Action	Consider For Immediate Action Due to Public Safety and Welfare Issues
Description	Critical Inshore Structures Present with Potential for Infrastructure Damage and/or High Density Residential Dwellings Condition of structure may warrant emergency stabilization as failure may result in potential loss of property and/or life. (>10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-001-000-036-200-PHO2A.jpg

035-001-000-036-200-PHO2B.jpg

Structure Documents:

MA DPW	AUG 1926	PEMBERTON POINT	035-001-000-036-200-TWN2A
MA DPW	MAR 1937	PEMBERTON POINT	035-001-000-036-200-TWN2B
MA DPW	NOV 1938	RIP RAP	035-001-000-036-200-TWN2C
MA DPW	MAR 1956	PROPOSED SHORE	035-001-000-036-200-TWN2D
MA DPW	NOV 1958	PROPOSED SHORE	035-001-000-036-200-TWN2E
MA DPW		CONCRETE	035-001-000-036-200-TWN2F
TOWN OF HULL	JUN 15 1979	CHANNEL STREET	035-001-000-036-200-TWN2G

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-002-000-001-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Highland Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$38,607.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
457		A3	11
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

18 inch wide X 12 inch high stone masonry wall. Coastal beach up to top of wall. Concrete sidewalk and road behind.

Condition Rating	B Good	*Priority Rating*	IV High Priority
Level of Action	Minor	*Action*	Consider for Next Project Construction Listing
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-002-000-001-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-002-000-002-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Highland Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	DCR - Contract Drawings

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1956	$32,271.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
382 Feet	10.5 Feet NAVD 88	A3	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Precast concrete wall along road. Coastal beach / dune outshore with sand up to top of wall in places. Top of 18 inch wide with tapered back to 30 inch wide.

Condition Rating	B Good	*Priority Rating*	II Low Priority
Level of Action	Minor	*Action*	Future Project Consideration
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

035-002-000-002-100-PHO1A.jpg

035-002-000-002-100-PHO1B.jpg

Structure Documents:

MA DPW	DECEMBER	PROPOSED SHORE	035-002-000-002-100-DCR1A
MA DPW	DEC 1956	PROPOSED SHORE	035-002-000-002-100-TWN1A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-002-000-003-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Highland Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$32,637.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
43		A3	11
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Stone seawall (dry set) / wharf. Remnants of timber fixed pier offshore. Outshore end in fair condition with several repairs previously performed.

Condition Rating	C Fair	*Priority Rating*	II Low Priority
Level of Action	Moderate	*Action*	Future Project Consideration
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.	*Description*	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

035-002-000-003-100-PHO1A.jpg

035-002-000-003-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-002-000-007-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Highland Ave.

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: DCR - Contract Drawings

Owner Name: Hull

Earliest Structure Record: 1956

Estimated Reconstruction/Repair Cost: $9,240.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
140	10.5	A3	11
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet
Secondary Type:	**Secondary Material:**	**Secondary Height:**

Structure Summary :

Revetment buried under sand. Few stones visible (1000 lbs.)

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-002-000-007-100-PHO1A.jpg

Structure Documents:

MA DPW	DECEMBER	PROPOSED SHORE	035-002-000-007-100-DCR1A
MA DPW	DEC 1956	PROPOSED SHORE	035-002-000-007-100-TWN1A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-002-000-021-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Pemberton

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $302,702.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
126		V4	20
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Groin/ Jetty	Stone	5 to 10 Feet
Secondary Type:	**Secondary Material:**	**Secondary Height:**

Structure Summary :

Stones tumbled with gaps in groin. Average stone size is 500 to 1000 lbs.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	I None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

035-002-000-021-100-PHO1A.jpg

035-002-000-021-100-PHO1B.jpg

Structure Documents:

MA DPW	MARCH 193	PROPOSED	035-002-000-021-100-DCR1A
MA DPW	NOV 1938	RIP RAP	035-002-000-021-100-DCR1B
MA DPW	MAR 1937	PEMBERTON POINT	035-002-000-021-100-TWN1A
MA DPW	NOV 1938	RIP RAP	035-002-000-021-100-TWN1B

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-002-000-023-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Pemberton	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	DCR - Contract Drawings

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1956	$189,664.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
465 Feet	14 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	10 to 15 Feet

Structure Summary :

30 foot wide concrete seawall with revetment protecting toe. Average stone size is 1000 lbs. Revetment is satisfactory condition for protecting toe of wall. Wall has minor transverse cracking and broken piece (4 foot long X 3 feet high X 2 inches thick) on inshore face.

Condition Rating	B Good	*Priority Rating*	IV High Priority
Level of Action	Minor	*Action*	Consider for Next Project Construction Listing
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-002-000-023-100-PHO1A.jpg

035-002-000-023-100-PHO1B.jpg

Structure Documents:

MA DPW	MARCH 195	PROPOSED SHORE	035-002-000-023-100-DCR1A
TOWN OF HULL	AUG 31 197	CHANNEL STREET	035-002-000-023-100-TWN1A
MA DPW	MAR 1956	PROPOSED SHORE	035-002-000-023-100-TWN1B

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-003-000-047-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Stony Beach

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $131,005.00

Length: 834 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: V4

FIRM Map Elevation: 20 Feet NGVD

Primary Type: Revetment

Primary Material: Stone

Primary Height: 10 to 15 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Stone revetment wall with 10 foot wide flat top. Mean high water about mid height of wall. Toed into beach. Inshore grade about 4 feet below top of slope. A few loose/dislodged stones. Outshore face at 2 vertical or 3 vertical to 1 horizontal slope.

Condition Rating	B
Level of Action	Good
Description	Minor
	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV
Action	High Priority
Description	Consider for Next Project Construction Listing
	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-003-000-047-100-PHO1A.jpg

035-003-000-047-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-004-000-040-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Highland Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$0.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
270		A3	11
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Average stone 1 to 2 ton. Slope 45 degree toed into beach. 4 foot wide flat toe.

Condition Rating	A Excellent	*Priority Rating*	IV High Priority
Level of Action	None	*Action*	Consider for Next Project Construction Listing
Description	Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-004-000-040-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-005-000-075-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Highland Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$5,698,176.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
2272 Feet	Feet NAVD 88	A3	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment		10 to 15 Feet

Structure Summary :

Stone seawall (dryset) with steep earth slope behind (over 50 feet high) revetment dumped along toe of wall. Western 200 feet toppled and appears more like revetment than wall. Most of wall stones are loose or dislodged. Little to no structure at Vautrinot Ave.

Condition Rating	D
	Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III
	Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-005-000-075-100-PHO1A.jpg

035-005-000-075-100-PHO1B.jpg

035-005-000-075-100-PHO1C.jpg

035-005-000-075-100-PHO1D.jpg

Structure Documents:

DEP CH.91	DEC 10 193	PLAN	035-005-000-075-100.LIC1A.pdf

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-005-000-086-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Highland Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$53,130.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
125	10.5	A3	10
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

24 inch wide concrete seawall with coastal beach outshore and earth slope behind (approximately 20 feet rise at 1 vertical to 2 or 3 horizontal slope). Large horizontal cracks and spalling.

Condition Rating	C	*Priority Rating*	IV
	Fair		High Priority
Level of Action	Moderate	*Action*	Consider for Next Project Construction Listing
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-005-000-086-100-PHO1A.jpg

Structure Documents:

TOWN OF HULL | NOV 30 197 | HIGHLAND AVE. | 035-005-000-086-100-TWN1A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-005-000-096-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: James Ave.

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: DCR - Contract Drawings

Owner Name: Hull

Earliest Structure Record: 1955

Estimated Reconstruction/Repair Cost: $70,475.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
281 Feet	10 Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment		10 to 15 Feet

Structure Summary :

Stone block wharf (mortar at top) with 2 foot high concrete cap wall around top perimeter. Revetment (200 to 1000 lbs. stone) at 45 degree slope around structure. Dumped rip rap in fair condition.

Condition Rating	B
	Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV
	High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-005-000-096-100-PHO1A.jpg

035-005-000-096-100-PHO1B.jpg

Structure Documents:

MA DPW	JUNE 1955	PROPOSED	035-005-000-096-100-DCR1A
MA DPW	JUNE 1955	PROPOSED	035-005-000-096-100-TWN1A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-005-000-100-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	James Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	DCR - Contract Drawings

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1955	$52,371.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
345	10	A3	10
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

3 foot wide stone block seawall with mortared base buried under sand road directly behind. Timber railing on wall (insufficient for pedestrians or vehicles loading). Inshore face of wall is concrete curb for road.

Condition Rating	B Good	*Priority Rating*	IV High Priority
Level of Action	Minor	*Action*	Consider for Next Project Construction Listing
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-005-000-100-100-PHO1A.jpg

Structure Documents:

MA DPW	JUNE 1955	PROPOSED	035-005-000-100-100-DCR1A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-006-000-042-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	James Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	DCR - Contract Drawings

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1955	$0.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
1234 Feet	10 Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	Over 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	Over 15 Feet

Structure Summary :

Placed stone revetment forms base of structure. 1 to 1 slope. 1 ton to 2 ton stones. 5 foot long precast concrete sections on 6 inch concrete slab form top of structure. Paved slope behind concrete at 1 to 1 slope to road edge.

Condition Rating	A Excellent	*Priority Rating*	IV High Priority
Level of Action	None	*Action*	Consider for Next Project Construction Listing
Description	Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-006-000-042-100-PHO1A.jpg

035-006-000-042-100-PHO1B.jpg

Structure Documents:

MA DPW	JUNE 1955	PROPOSED	035-006-000-042-100-DCR1A
MA DPW	OCT 1956	PROP SHORE	035-006-000-042-100-DCR1B
MA DPW	OCT 1957	PROPOSED SEA	035-006-000-042-100-DCR1C
DEP CH.91	OCT 10 198	PLAN	035-006-000-042-100.LIC1A.pdf
MA DPW	JUNE 1955	PROPOSED	035-006-000-042-100-TWN1A
MA DPW	OCT 1957	PROPOSED SEA	035-006-000-042-100-TWN1B

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-006-000-067-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	James Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$34,853.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
82 Feet	Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

18 inch wide stone masonry wall (mortared). Concrete repairs made to structure. Grout washing out.

Condition Rating	C
Level of Action	Fair
Description	Moderate
	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV
	High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-006-000-067-100-PHO1A.jpg

035-006-000-067-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-006-000-075-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	James Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$350,658.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
231 Feet	Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Concrete seawall in fair condition. Width changes at center from 2 feet to 1 foot. Concrete poured along outshore toe where wall looks to have failed previously.

Condition Rating	D
	Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	IV
	High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-006-000-075-100-PHO1A.jpg

035-006-000-075-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-007-000-006-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Spring St.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$65,122.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
429 Feet	9 Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

30 foot wide stone masonry block seawall with sidewalk and road behind. Cemetary also. Mortar washed out below mean high water (about mid height of wall).

Condition Rating	B Good	*Priority Rating*	II Low Priority
Level of Action	Minor	*Action*	Future Project Consideration
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

035-007-000-006-100-PHO1A.jpg

035-007-000-006-100-PHO1B.jpg

Structure Documents:

DEP CH.91	OCT 10 198	PLAN	035-007-000-006-100-LIC1A.pdf
TOWN OF HULL	OCT 3 1989	SPRING STREET	035-007-000-006-100-TWN1A
TOWN OF HULL	OCT 3 1989	SPRING STREET	035-007-000-006-100-TWN1B

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-007-000-008-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Spring St.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	DEP – Ch 91 License

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1934	$0.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
1105 Feet	11 Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Treatment facility inshore. Average stone 1 ton. Placed at 1 to 1 slope. Road directly inshore. Top is flat (3 foot wide)

Condition Rating	A Excellent
Level of Action	None
Description	Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm.

Priority Rating	V Immediate / Highest Priority
Action	Consider For Immediate Action Due to Public Safety and Welfare Issues
Description	Critical Inshore Structures Present with Potential for Infrastructure Damage and/or High Density Residential Dwellings Condition of structure may warrant emergency stabilization as failure may result in potential loss of property and/or life. (>10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-007-000-008-100-PHO1A.jpg

Structure Documents:

DEP CH.91	DEC 10 193	PLAN TO	035-007-000-008-100-LIC1A.pdf
DEP CH.91	OCT 10 198	PLAN	035-007-000-008-100-LIC1B.pdf
TOWN OF HULL	OCT 3 1989	SPRING STREET	035-007-000-008-100-TWN1A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-007-000-052-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Stony Beach	8/2/2006

Presumed Structure Owner:	Based On Comment:
Local	DCR - Contract Drawings

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1931	$1,974,699.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
2527 Feet	17 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Revetment seawall with 6 foot flat top and 45 degree front face. Placed stone toed into beach. Road behind approximately 5 feet below top of wall. Western third of structure has moved stones and voids. Eastern 2/3 of structure is statisfactory.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-007-000-052-100-PHO1A.jpg

035-007-000-052-100-PHO1B.jpg

Structure Documents:

MA DPW	OCT 1931	PROPOSED	035-007-000-052-100-DCR1A
MA DPW	JAN 34	PROPOSED SHORE	035-007-000-052-100-DCR1B
MA DPW	OCT 1931	PROPOSED	035-007-000-052-100-TWN1A
MA DPW	JAN 1934	PROPOSED SHORE	035-007-000-052-100-TWN1B
UNKNOWN		CROSS SECTION	035-007-000-052-100-TWN1C
TOWN OF HULL	AUG 31 197	NANTASKET AVE	035-007-000-052-100-TWN1D
TOWN OF HULL	OCT 4 1989	SITE PLAN &	035-007-000-052-100-TWN1E
TOWN OF HULL		SITE PLAN AND	035-007-000-052-100-TWN1F

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-008-000-017-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Nantasket Ave.

Date: 8/2/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $45,236.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
298 Feet	14 Feet NAVD 88	V4	20 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Concrete

Primary Height: 5 to 10 Feet

Secondary Type: Revetment

Secondary Material:

Secondary Height: 5 to 10 Feet

Structure Summary :

24 inch wide concrete seawall with revetment up to top of seawall. Wall is approximatelly 2 feet shorter than 035-009-000-033-200. Average stone size is 1000 to 2000 lbs. 45 degree slope.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-008-000-017-100-PHO1A.jpg

Structure Documents:

TOWN OF HULL	AUG 31 197	NANTASKET AVE	035-008-000-017-100-TWN1A
UNKNOWN	APR 12 199	EXISTING	035-008-000-017-100-TWN1B
UNKNOWN	APR 12 199	SECTION A-A	035-008-000-017-100-TWN1C

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-008-000-018-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Private	Nantasket Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Unknown	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
	0	$100,320.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
400 Feet	Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	

Structure Summary :

6 feet 6 inches high stone masonry wall. Revetment is buried and/or missing for 1st half of structure (few portions of rock visible). 1000 lb. Average stone at 45 degree slope for eastern half.

Condition Rating	B Good	*Priority Rating*	IV High Priority
Level of Action	Minor	*Action*	Consider for Next Project Construction Listing
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-008-000-018-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-008-000-021-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Nantasket Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	DCR - Contract Drawings

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1955	$56,530.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
133		A3	10
Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Road inshore. Stone masonry seawall. Voids along wall base (about 2 feet wide and 20 feet high inshore of mean high water). Fill loss inshore of wall.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-008-000-021-100-PHO1A.jpg

035-008-000-021-100-PHO1B.jpg

Structure Documents:

MA DPW	JUNE 1955	PROPOSED	035-008-000-021-100-DCR1A
MA DPW	JUN 1955	PROPOSED	035-008-000-021-100-TWN1A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-008-000-022-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Nantasket Ave.	8/3/2006

Presumed Structure Owner:	Based On Comment:
Local	DCR - Contract Drawings

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1955	$69,828.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
92 Feet	Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Bulkhead/ Seawall	Concrete	

Structure Summary :

House and road directly behind stone masonry wall. House also has mass concrete foundation extending out from stone wall.

Condition Rating	C
Level of Action	Fair
Description	Moderate
	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV
Action	High Priority
Description	Consider for Next Project Construction Listing
	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-008-000-022-100-PHO1A.jpg

035-008-000-022-100-PHO1B.jpg

035-008-000-022-100-PHO1C.jpg

Structure Documents:

MA DPW	JUNE 1955	PROPOSED	035-008-000-022-100-DCR1A
MA DPW	JUN 1955	PROPOSED	035-008-000-022-100-TWN1B

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-009-000-033-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Private	Point Allerton Seawall	8/2/2006

Presumed Structure Owner:	Based On Comment:
Local	DCR - Contract Drawings

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1931	$293,126.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
1931 Feet	16.5 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment		5 to 10 Feet

Structure Summary :

3 feet 6 inch wide concrete seawall in satisfactory condition. 10 inch wide concrete repair on inshore face. Revetment slope has 5 foot wide flat top and 1 to 1 slope (5 feet high). Average stone size is 2 ton (placed rip rap). Cap appears to be new construction on old base.

Condition Rating	B Good	*Priority Rating*	IV High Priority
Level of Action	Minor	*Action*	Consider for Next Project Construction Listing
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-009-000-033-100-PHO1A.jpg

035-009-000-033-200-PHO2A.jpg

Structure Documents:

MA DPW	OCT 1931	PROPOSED	035-009-000-033-100-DCR1A
MA DPW	MARCH 196	PROPOSED SHORE	035-009-000-033-100DCR1B
MA DPW	APRIL 1957	PROPOSED SHORE	035-009-000-033-100-DCR1C
MA DPW	OCT 1931	PROPOSED	035-009-000-033-100-TWN1A
UNKNOWN	APR 12 199	SECTION A-A	035-009-000-033-100-TWN1B
USACE	APR 12 199	NANTASKET	035-009-000-033-100-COE1A.pdf

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-009-000-033-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Point Allerton Seawall	8/2/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$1,045,902.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
1378 Feet	16 Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

30 inch wide concrete seawall with slightly sloped outshore face. No revetment. Coastal rocky beach outshore. Some vertical and transverse cracks through entire structure width. Ffooting top is exposed and has some deterioration at joints

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

Structure Documents:

MA DPW	OCT 1931	PROPOSED	035-009-000-033-200-TWN2A
MA DPW	APR 1957	PROPOSED SHORE	035-009-000-033-200-TWN2B
MA DPW	MAR 1960	PROPOSED SHORE	035-009-000-033-200-TWN2C
TOWN OF HULL	AUG 31 197	NANTASKET AVE	035-009-000-033-200-TWN2D
UNKNOWN	APR 12 199	SECTION A-A	035-009-000-033-200-TWN2E
TOWN OF HULL		SITE PLAN AND	035-009-000-033-200-TWN2F

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-009-000-044-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Mariners Park

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $547,008.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
700 Feet	10 Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Dumped rip rap slope (1 to 2) in fair condition. Toe and top not defined well. Stone size is 100 to 2000 lbs. Many stones are loose or dislodged.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images: 035-009-000-044-100-PHO1A.jpg

Structure Documents: DEP CH.91 | OCT 28 196 | PLAN TO | 035-009-000-044-100-LIC1A.pdf

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-009-000-044-200

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Fitzpatrick Hwy

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: DEP – Ch 91 License

Owner Name: Hull

Earliest Structure Record: 1964

Estimated Reconstruction/Repair Cost: $56,280.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
228 Feet	9.7 Feet NAVD 88	A3	10 Feet NGVD

Primary Type: Revetment

Primary Material: Stone

Primary Height: Over 15 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Stone block seawall outshore of concrete abutments for road bridge over channel from salt water pond to harbor. Bridge spans approximately 20 feet and built in 2003. Loss of fill material at wall ends near pond because no return on wall.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-009-000-044-100-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-009-000-044A-100

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Mariners Park

Date: 8/3/2006

Presumed Structure Owner: Unknown

Based On Comment: Property Ownership

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $179,731.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
230 Feet	9.7 Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Yacht club and road behind revetement. Dumped rip rap slope (1 to 2) in fair conditions. Toe and top not defined well. Stone size is 100 to 2000 lbs. stone. Many stones loose or dislodged.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-009-000-044A-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-010-000-003-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
State	Point Allerton Seawall	8/2/2006

Presumed Structure Owner:	Based On Comment:
State	DCR - Contract Drawings

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
MA-DCR	1926	$3,837,755.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
597 Feet	25 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	Over 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	Over 15 Feet

Structure Summary :

Approximately 30 foot high revetment slope with 10 foot flat top. Stones on top are mortared. Slope varies from 45 degree and steeper. Stone size is 1 to 3 ton. First 100 feet (plus or minus) is stone seawall (vertical) with revetment (10 feet wide) in front. Large voids and arching of stones existed.

Condition	D
Rating	Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority	IV
Rating	High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-010-000-003-100-PHO1A.jpg

035-010-000-003-100-PHO1B.jpg

035-010-000-003-100-PHO1C.jpg

Structure Documents:

MA DPW	DECEMBER	PROPOSED SHORE	035-010-000-003-100-DCR1A
Commission on	SEPT 7, 192	POINT ALLERTON	035-010-000-003-100-DCR1B
MA DEM	FEB 1995	SEAWALL	035-010-000-003-100-DCR1C
MA DEM	AUGUST 19	REVETMENT	035-010-000-003-100-DCR1D
MA DEM	SEPT 1999	SITE	035-010-000-003-100-DCR1E
MA DEM	MARCH 200	REVETMENT	035-010-000-003-100-DCR1F
DEP CH 91	NOV 06 199	PLAN	035-010-000-003-100-LIC1A.pdf
MA DPW	SEP 7 1926	POINT ALLERTON	035-010-000-003-100-TWN1A
A.C.O.E.	JUN 30 1875	BOSTON HARBOR,	035-010-000-003-100-TWN1B
USACE	JUN 1998	EXISTING	035-010-000-003-100-COE1A.pdf

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-010-000-003-200

Key: community-map-block-parcel-structure

Property Owner: State

Location: Point Allerton

Date: 8/2/2006

Presumed Structure Owner: State

Based On Comment: DCR - Contract Drawings

Owner Name: MA-DCR

Earliest Structure Record: 1926

Estimated Reconstruction/Repair Cost: $228,413.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
560 Feet	20 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	10 to 15 Feet

Structure Summary :

4 foot wide stone block seawall with placed rip rap at toe. Revetment has approximately 4 foot wide flat top and 1 to 1 slope. Stones comprising slope showed some movement (minor). Average stone size 1 to 2 ton. Flat slope behind wall had placed stones (1 to 2 ton) to prevent erosion.

Condition	B
Rating	Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority	III
Rating	Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-010-000-003-200-PHO2A.jpg

035-010-000-003-200-PHO2B.jpg

Structure Documents:

MA DPW	SEP 7 1926	POINT ALLERTON	035-010-000-003-200-TWN2A
A.C.O.E.	JUN 30 1875	BOSTON HARBOR,	035-010-000-003-200-TWN2B

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-010-000-020-100

Key: community-map-block-parcel-structure

Property Owner: State

Location: Point Allerton

Date: 8/2/2006

Presumed Structure Owner: State

Based On Comment: DCR - Contract Drawings

Owner Name: MA-DCR

Earliest Structure Record: 1999

Estimated Reconstruction/Repair Cost: $0.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
53 Feet	17.8 Feet NAVD 88	V4	20 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Concrete

Primary Height: Under 5 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

3 feet to 9 feet wide concrete seawall in excellent condition. Coastal (rocky) beach outshore.

Condition Rating	A Excellent
Level of Action	None
Description	Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-010-000-020-100-PHO1A.jpg

Structure Documents:

MA DPW	OCT 1968	PROPOSED SHORE	035-010-000-020-100-DCR1A
MA DEM	JAN. 1999	PROPOSED	035-010-000-020-100-DCR1B
MA DPW	OCT 1968	PROPOSED SHORE	035-010-000-020-100-TWN1A
MA DPW	SEP 7 1926	POINT ALLERTON	035-010-000-020-100-TWN1B

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-010-000-020-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Point Allerton Seawall	8/2/2006

Presumed Structure Owner:	Based On Comment:
Local	DCR - Contract Drawings

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1999	$0.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
1209 Feet	Feet NAVD 88		Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	10 to 15 Feet

Structure Summary :

4 foot wide concrete seawall with placed rip rap at toe. Revetment has 5 foot wide flat top with 1 to 1 slope (5 feet high). Coastal rocky beach outshore. There is minor movement of the toe stones.

Condition Rating	A Excellent
Level of Action	None
Description	Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-010-000-020-200-PHO2A.jpg

035-010-000-020-200-PHO2B.jpg

Structure Documents:

MA DPW	OCT 1968	PROPOSED SHORE	035-010-000-020-200-TWN2A
MA DPW	SEP 7 1926	POINT ALLERTON	035-010-000-020-200-TWN2B

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-010-000-084-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Nantasket Beach

Date: 8/2/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $51,836.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
330 Feet	20 Feet NAVD 88	V4	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Revetment slope (steeper than 1 to 1 about 3/4 to 1) with 1 to 2 ton stones concreted together.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-010-000-084-100-PHO1A.jpg

035-010-000-084-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-010-000-084-200

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Nantasket Beach

Date: 8/2/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $96,268.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
390 Feet	Feet NAVD 88	V4	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Over 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Revetment slope for entire height of cliff (75 +/- feet) at slope about 1 to 1. Average stone size is 2 ton. Lower portion of revetment is continuation of adjacent structure.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-010-000-084-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-011-000-010-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Fitzpatrick Hwy

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

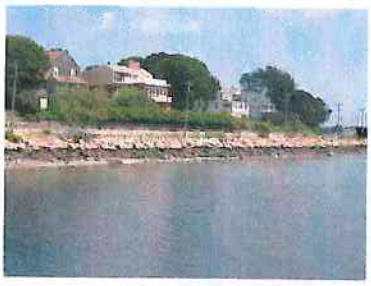
Estimated Reconstruction/Repair Cost: $1,189,352.00

Length: 1522 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone:

FIRM Map Elevation: Feet NGVD



Primary Type: Revetment

Primary Material: Stone

Primary Height: 10 to 15 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Dumped rip rap slope (1 to 2) with road directly inshore. 200 to 1000 lbs stone. Slope has loose and dislodged stones and is not toed into beach. Some fill loss at top of revetment.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV
	High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-011-000-010-100-PHO1A.jpg

035-011-000-010-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-012-000-075-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Nantasket Beach

Date: 8/2/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $332,381.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
782 Feet	Feet NAVD 88	V4	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	Under 5 Feet
Secondary Type:	**Secondary Material:**	**Secondary Height:**

Structure Summary :

Concrete seawall (12 feet wide) with coastal beach up to 1 foot below top of wall. Top broken in isloated locations. Cracking of top.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-012-000-075-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-012-000-108-100

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Fitzpatrick Hwy

Date: 8/18/2006

Presumed Structure Owner: Unknown

Based On Comment:

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $8,448.00

Length: 100 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: A3

FIRM Map Elevation: 10 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Concrete

Primary Height: Under 5 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

30 inch wide precast concrete blocks stacked as seawall. No signs of movement. Some fill loss inshore.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-012-000-108-100-PHO1A.jpg

035-012-000-108-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-013-000-046-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Fitzpatrick Hwy

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $28,723.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
340 Feet	Feet NAVD 88	V4	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	Under 5 Feet
Secondary Type:	**Secondary Material:**	**Secondary Height:**

Structure Summary :

12 inch wide concrete seawall with gravel parking and road directly inshore. Dense houseing across road from seawall some deterioration of top and outshore face. Minor cracking due to corrosion of hardware drilled into wall.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-013-000-046-100-PHO1A.jpg

035-013-000-046-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-014-000-048-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Cadish Ave.

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $73,036.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
110 Feet	Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Dumped rip rap covered with asphalt covering. Eroding slope with road directly behind it.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-014-000-048-100-PHO1A.jpg

Structure Documents:

USACE	DEC 2001	CADISH AVENUE	035-014-000-048-100-COE1A.pdf

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-014-000-048-200

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Cadish Ave.

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $0.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
225 Feet	Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet
Secondary Type:	**Secondary Material:**	**Secondary Height:**

Structure Summary :

Placed rip rap slope (at 45 degrees) with road directly inshore. Toed into beach.

Condition	A
Rating	Excellent
Level of Action	None
Description	Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm.

Priority	III
Rating	Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images: 035-014-000-048-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-014-000-080-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Cadish Ave.

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $72,105.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
95 Feet	Feet NAVD 88	A3	10 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Concrete

Primary Height: 5 to 10 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Concrete seawall cast-in-place on top of cast-in-place slab. Large vertical and horizontal cracks.

Condition Rating	C Fair
Level of Action Description	Moderate Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV High Priority
Action Description	Consider for Next Project Construction Listing High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-014-000-080-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-014-000-084-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Cadish Ave.

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: USACE – Permits

Owner Name: Hull

Earliest Structure Record: 1966

Estimated Reconstruction/Repair Cost: $0.00

Length: 363 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: A3

FIRM Map Elevation: 10 Feet NGVD

Primary Type: Revetment

Primary Material: Stone

Primary Height: 5 to 10 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

New construction. 1 to 2 ton stone on placed rip rap slope at 2 to 1. Granite curb concreted at top of wall.

Condition Rating	A Excellent
Level of Action	None
Description	Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

Structure Documents:

Bourne Consulltin	August 2006	DIGITAL IMAGE	035-014-000-084-100-PHO1A.jpb

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-014-000-109-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Cadish Ave.

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $25,212.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
382 Feet	Feet NAVD 88	A3	10 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Placed rip rap 1 to 2 ton stone 45 degree slope concreted in place. Void at start of structure. Toed into slope of beach.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-014-000-109-100-PHO1A.jpg

035-014-000-109-100-PHO1B.jpg

035-014-000-109-100-PHO1C.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-016-000-010-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Sunset Ave.

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $315,137.00

Length: 2076 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone:

FIRM Map Elevation: Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Stone

Primary Height: 5 to 10 Feet

Secondary Type: Revetment

Secondary Material: Stone

Secondary Height:

Structure Summary :

Stone block seawall (mortared) with dumped rip rap outshore (1 to 3) mound. 1000 to 2000 lb. stones. Loss of mortar for wall height. Revetment toed in well. Road directly inshore of wall.

Condition Rating	B
Level of Action	Good
Description	Minor
	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV
Action	High Priority
Description	Consider for Next Project Construction Listing
	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-016-000-010-100-PHO1A.jpg

035-016-000-010-100-PHO1B.jpg

035-016-000-010-100-PHO1C.jpg

035-016-000-010-100-PHO1D.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-018-000-069-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Newport Rd.

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $37,588.00

Length: 113 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: A3

FIRM Map Elevation: 11 Feet NGVD

Primary Type: Revetment

Primary Material: Concrete

Primary Height: Under 5 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Concrete boat ramp in fair condition. Partially buried by sand/pebbles.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	I
	None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

035-018-000-069-100-PHO1A.jpg

035-018-000-069-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-018-000-144-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Private	Newport Rd.	8/18/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$55,539.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
225 Feet	Feet NAVD 88	A3	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	Over 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Placed rip rap slope (45 degree) up earth bank (over 40 feet high). 1000 to 3000 lb. stone with some vegetation growing in slope. Toed into beach.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-018-000-144-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-018-000-145-100

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Newport Rd.

Date: 8/18/2006

Presumed Structure Owner: Unknown

Based On Comment:

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $59,459.00

Length: 495 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: A3

FIRM Map Elevation: 11 Feet NGVD

Primary Type: Revetment

Primary Material: Stone

Primary Height: 5 to 10 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Placed rip rap slope (45 degree) with 1 to 2 ton stones. Toed into beach wall.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images: 035-018-000-145-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-018-000-150-100

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Newport Rd.

Date: 8/18/2006

Presumed Structure Owner: Unknown

Based On Comment:

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $37,237.00

Length: 310 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: A3

FIRM Map Elevation: 11 Feet NGVD

Primary Type: Revetment

Primary Material: Stone

Primary Height: 5 to 10 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Dumped rip rap (1 ton size) and concrete slabs. Between revetment is a private travel lift made of concrete walls. Approximately 45 degree revetment slope.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-018-000-150-100-PHO1A.jpg

035-018-000-150-100-PHO1B.jpg

035-018-000-150-100-PHO1C.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-019-000-041-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Nantasket Beach

Date: 8/2/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $9,462.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
112 Feet	Feet NAVD 88	V4	17 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

2 foot high by 2 feet 6 inch wide stone masonry wall at edge of road/access way to beach. Concrete cap (2 feet thick) broken on edges. 2 timber CCA piles at face to mark access ramp.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-019-000-041-100-PHO1A.jpg

035-019-000-041-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-020-000-143-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Newport Rd.

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $1,263,712.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
808 Feet	Feet NAVD 88	A3	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Placed revetment slope (45 degree) along steep earth bank. Slope is not toed into beach. 1 to 2 ton stones. Slope located in front of concrete foundation for multi-unit residential building. The stairs and slope at the Strawberry Hill area have failed.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-020-000-143-100-PHO1A.jpg

035-020-000-143-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-024-000-110-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Newport Rd.

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: DCR - Contract Drawings

Owner Name: Hull

Earliest Structure Record: 1961

Estimated Reconstruction/Repair Cost: $792,528.00

Length: 3160 Feet

Top Elevation: 15 Feet NAVD 88

FIRM Map Zone: A3

FIRM Map Elevation: 11 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Concrete

Primary Height: 10 to 15 Feet

Secondary Type: Revetment

Secondary Material: Stone

Secondary Height:

Structure Summary :

Concrete seawall (approximately 2 feet thick) with 4 foot wide cap and wave break face. 16 inch by 16 inch concrete buttress inshore at 10 feet on center and angled at 45 degree. Placed rip rap at base which is buried for majority of length. Deterioation at joints at wall base. Exposed reinforcing and spalling in places at toe.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	V Immediate / Highest Priority
Action	Consider For Immediate Action Due to Public Safety and Welfare Issues
Description	Critical Inshore Structures Present with Potential for Infrastructure Damage and/or High Density Residential Dwellings Condition of structure may warrant emergency stabilization as failure may result in potential loss of property and/or life. (>10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-024-000-110-100-PHO1A.jpg
035-024-000-110-100-PHO1B.jpg
035-024-000-110-100-PHO1C.jpg
035-024-000-110-100-PHO1D.jpg
035-024-000-110-100-PHO1E.jpg
035-024-000-110-100-PHO1F.jpg

Structure Documents:

MA DPW	MARCH 196	PROPOSED SEA	035-024-000-110-100-DCR1A
MA DPW	MAR 1961	PROPOSED SEA	035-024-000-110-100-TWN1A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-027-000-054-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Nantasket Beach

Date: 8/2/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $0.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
564 Feet	11 Feet NAVD 88	V4	22 Feet NGVD

Primary Type: Revetment

Primary Material: Stone

Primary Height: 5 to 10 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Revetment slope at 1 to 1 with 5 feet wide flat top. Paved sidewalk behind and then street. Revetment willnot prevent washing out of small/fine material.

Condition Rating	A Excellent
Level of Action Description	None Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm.

Priority Rating	II Low Priority
Action Description	Future Project Consideration Inshore Structures Present with Limited potential for Significant Infrastructure Damage

Structure Images:

035-027-000-054-100-PHO1A.jpg

035-027-000-054-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-027-000-054-200

Key: community-map-block-parcel-structure

Property Owner: State

Location: Nantasket Beach

Date: 8/2/2006

Presumed Structure Owner: State

Based On Comment: Property Ownership

Owner Name: MA-DCR

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $119,975.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
122 Feet	11 Feet NAVD 88	V4	22 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	Under 5 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Concrete seawall (possibly building foundation) in poor condition and heavily deteriorated.

Condition Rating	F Critical
Level of Action	Immediate
Description	Conditions of structure/landform may warrant emergency stabilization as failure may result in potential loss of property and/or life. Landform eroded, loss of integrity. Structure exhibits critical levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure provides little or no protection from a major coastal storm. Actions taken to totally reconstruct structure to regain full capacity. Landform stability is severely compromised, rate of erosion/material loss may be increasing, and landform does not provide adequate protection from a major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-027-000-054-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-027-000-054-300

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
State	Nantasket Beach	8/2/2006

Presumed Structure Owner:	Based On Comment:
State	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
MA-DCR	0	$595,056.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
392 Feet	11 Feet NAVD 88	V4	22 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment		5 to 10 Feet

Structure Summary :

First 100 feet is bathouse on 18 inches to 24 inches concrete slab foundation. Remainder is 2 feet revetment (500 to 1000 lbs.) with jersey barrier on top.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-027-000-054-300-PHO3A.jpg

035-027-000-054-300-PHO3B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-030-000-073-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Private	Nantasket Rd.	8/18/2006

Presumed Structure Owner:	Based On Comment:
Unknown	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
	0	$268,356.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
1070 Feet	15 Feet NAVD 88	A3	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	

Structure Summary :

12 inch wide concrete seawall with placed rip rap slope (1 to 3) outshoue. Asphalt sidewalk inshore. Minor deterioration and cracking of concrete. 1000 to 4000 lb. stones. Slope toed into beach. Tide gate does not function.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	I None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

035-030-000-073-100-PHO1A.jpg

035-030-000-073-100-PHO1B.jpg

035-030-000-073-100-PHO1C.jpg

Structure Documents:

MA DPW	MARCH 196	PROPOSED SEA	035-030-000-073-100-DCR1A
MA DPW	MAR 1961	PROPOSED SEA	035-030-000-073-100-TWN1A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-032-000-051-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Private	Sunset Point	8/18/2006

Presumed Structure Owner:	Based On Comment:
Unknown	

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
	1960	$115,454.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
735 Feet	11 Feet NAVD 88	A3	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Placed stone revetment with 1 to 2 slope. Rip rap is 1 to 2 ton stone. Toe scoured out at some locations.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-032-000-051-100-PHO1A.jpg

035-032-000-051-100-PHO1B.jpg

035-032-000-051-100-PHO1C.jpg

Structure Documents:

MA DPW	AUGUST 19	PROPOSED SHORE	035-032-000-051-100-DCR1A
MA DPW	AUG 1958	PROPOSED SHORE	035-032-000-051-100-TWN1A
MA DPW	AUG 1958	PROPOSED SHORE	035-032-000-051-200-TWN1B

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-033-000-010-100

Key: community-map-block-parcel-structure

Property Owner: State

Location: Nantasket Beach

Date: 8/2/2006

Presumed Structure Owner: State

Based On Comment: Property Ownership

Owner Name: MA-DCR

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $0.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
976 Feet	12 Feet NAVD 88	V4	22 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	5 to 10 Feet

Structure Summary :

New construction. 30 feet wide concrete seawall with railing (stainless steel). Placed rip rap outshore of wall for approximately 25 feet and up to 2 feet below top of wall. Average stone size 2 ton. Top of wall has cracking at joints and damage along top edge from stone placement.

Condition	A
Rating	Excellent
Level of Action	None
Description	Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm.

Priority	III
Rating	Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images: 035-033-000-010-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-034-000-001-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Bay St.	8/18/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$658,754.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
843 Feet	Feet NAVD 88	A3	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Dumped rip rap slope at 45 degree with road directly inshore. Not toed in at base. 100 to 200 lb. stone loosely placed with evidence of movement.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-034-000-001-100-PHO1A.jpg

035-034-000-001-100-PHO1B.jpg

035-034-000-001-100-PHO1C.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-035-000-014-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Hampton Hill

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $0.00

Length: 141 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: A3

FIRM Map Elevation: 11 Feet NGVD

Primary Type: Revetment

Primary Material: Stone

Primary Height: 10 to 15 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Placed revetment with 1/2 to 1 ton stone concrete mortared. Toed well into back no scour. Pump house located on structure.

Condition Rating	A Excellent
Level of Action	None
Description	Like new condition. Structure expected to withstand major coastal storm without damage. Stable landform (beach, dune or bank). Adequate system exists to provide protection from major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-035-000-014-100-PHO1A.jpg

035-035-000-014-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-035-000-014-200

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Hampton Hill

Date: 8/18/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $5,491.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
65 Feet	Feet NAVD 88	A3	11 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Concrete

Primary Height: Under 5 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

18 inch wide cast in place concrete seawall with road directly inshore. Minor cracking and slight outshore lean.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images: 035-035-000-014-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-036-000-022-100

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Bay St.

Date: 8/18/2006

Presumed Structure Owner: Unknown

Based On Comment: Property Ownership

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $123,493.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
567 Feet	Feet NAVD 88	A3	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	Under 5 Feet

Structure Summary :

Precast concrete seawall with cast in place base. Dumped rip rap at toe of wall. Stone size of 100 lb. typical. Minor cracking and spalling. The end of structure does not have precast concrete and base is failed and deteriated.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-036-000-022-100-PHO1A.jpg

035-036-000-022-100-PHO1B.jpg

035-036-000-022-100-PHO1C.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-036-000-180-100

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Hampton Hill

Date: 8/18/2006

Presumed Structure Owner: Unknown

Based On Comment:

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $178,972.00

Length: 1179 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: A3

FIRM Map Elevation: 11 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Concrete

Primary Height: 5 to 10 Feet

Secondary Type: Revetment

Secondary Material: Stone

Secondary Height:

Structure Summary :

Revetement with a precast concrete seawall. Precast is set on top of concrete slab on top of rip rap. Stone size 1/2 ton to 1 ton. Rip rap is placed. Revetment 5 feet tall 45 degree slope. Precast 5 feet tall 45 degree slope. Precast 5 foot tall.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-036-000-180-100-PHO1A.jpg

035-036-000-180-100-PHO1B.jpg

035-036-000-180-100-PHO1C.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-037-000-006A-100

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Washington Blvd.

Date: 8/18/2006

Presumed Structure Owner: Private

Based On Comment: Property Ownership

Owner Name: Susan Perry

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $51,308.00

Length: 338 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone:

FIRM Map Elevation: Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Stone

Primary Height: 5 to 10 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Stone block seawall (mortared) with building above. Loss of grout from mean high water down.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-037-000-006A-100-PHO1A.jpg

035-037-000-006A-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-037-000-007-100

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Wharf Ave.

Date: 8/18/2006

Presumed Structure Owner: Unknown

Based On Comment:

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $64,865.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
54 Feet	Feet NAVD 88	A3	11 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Concrete	5 to 10 Feet
Secondary Type:	**Secondary Material:**	**Secondary Height:**

Structure Summary :

Concrete public boat ramp in poor condition. South Face heavily eroded with material loss. Patched multiple times.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	I None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

035-037-000-007-100-PHO1A.jpg

Structure Documents:

MA DEM	APR 1985	PROPOSED	035-037-000-007-100-TWN1A
MA DEM	DEC 1 1982	PROPOSED	035-037-000-007-100-TWN1B

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-037-000-007-200

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Wharf Ave.

Date: 8/18/2006

Presumed Structure Owner: Unknown

Based On Comment:

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $28,387.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
187 Feet	90 Feet NAVD 88	A3	11 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Stone

Primary Height: 5 to 10 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Stone block seawall (mortared) around filled wharf parking lot. 20 feet section moved outward with fill loss inshore.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	I None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

035-037-000-007-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-037-000-007-300

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Wharf Ave.

Date: 8/18/2006

Presumed Structure Owner: Unknown

Based On Comment:

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $216,691.00

Length: 864 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: A3

FIRM Map Elevation: 11 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Steel

Primary Height: 10 to 15 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Steel sheet pile bulkhead with steel cap for south face and north face. Outshore (west) end has concrete cap. Some scalling at mean high water and splash zone. Timber fender piles along face. Timber pier on outshore face. Some fill loss behind wall.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	I None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

035-037-000-007-300-PHO3A.jpg

035-037-000-007-300-PHO3B.jpg

035-037-000-007-300-PHO3C.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-037-000-007-400

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Wharf Ave.

Date: 8/18/2006

Presumed Structure Owner: Unknown

Based On Comment:

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $69,676.00

Length: 459 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: A3

FIRM Map Elevation: 11 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Stone

Primary Height: 5 to 10 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Stone block seawall (mortared) with gravel parking lot inshore. Loss of mortar below mean high water. Minor fill loss inshore of wall.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	I None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images:

035-037-000-007-400-PHO4A.jpg

035-037-000-007-400-PHO4B.jpg

035-037-000-007-400-PHO4C.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-037-000-010-100

Key: community-map-block-parcel-structure

Property Owner: State

Location: Nantasket Beach

Date: 8/1/2006

Presumed Structure Owner: State

Based On Comment: DEP – Ch 91 License

Owner Name: MA-DCR

Earliest Structure Record: 2005

Estimated Reconstruction/Repair Cost: $21,252.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
140 Feet	12 Feet NAVD 88	V4	22 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Coastal Beach	Sand	

Structure Summary :

2 foot wide concrete seawall with coastal beach outshore. In satisfactory condition with steel railing on top (12 feet high). Parking lot directly behind then stops and apartment building. Weep draining at 25 feet on center at sidewalk elevation (2 feet below wall top).

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-037-000-010-100-PHO1A.jpg

035-037-000-010-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-037-000-010-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
State	Nantasket Beach	8/1/2006

Presumed Structure Owner:	Based On Comment:
State	DEP – Ch 91 License

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
MA-DCR	2005	$625,416.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
2300 Feet	12 Feet NAVD 88	V4	22 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	5 to 10 Feet

Structure Summary :

2 foot wide concrete seawall with revetment outshore (10 feet to 20 feet wide X 5 feet high). Average stone size 1 to 2 ton. Weep drains at 25 feet on center (at sidewalk height at about 2 feet below top of wall) Rip rap slope at 1 vertical to 3 or 4 horizontal.

Condition Rating	B Good	*Priority Rating*	IV High Priority
Level of Action	Minor	*Action*	Consider for Next Project Construction Listing
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.	*Description*	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-037-000-010-200-PHO2A.jpg

035-037-000-010-200-PHO2B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-037-000-010-300

Key: community-map-block-parcel-structure

Property Owner: State

Location: Nantasket Beach

Date: 8/2/2006

Presumed Structure Owner: State

Based On Comment: Property Ownership

Owner Name: MA-DCR

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $32,030.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
211 Feet	12 Feet NAVD 88	V4	22 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Concrete

Primary Height: 5 to 10 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

24 inch wide concrete seawall with slight taper in satisfactory condition. Minor deterioration of face and minor cracking.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-037-000-010-300-PHO3A.jpg

035-037-000-010-300-PHO3B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-037-000-010-400

Key: community-map-block-parcel-structure

Property Owner: State

Location: Nantasket Beach

Date: 8/2/2006

Presumed Structure Owner: State

Based On Comment: Property Ownership

Owner Name: MA-DCR

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $88,044.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
580 Feet	12 Feet NAVD 88	V4	22 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Same as -300 except width is 42 inches at top. Concrete access ramp is broken at intersetion with wall. Minor deterioration at joints. Some corrosion stains on outshore face.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-037-000-010-400-PHO4A.jpg

035-037-000-010-400-PHO4B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-038-000-060-100

Key: community-map-block-parcel-structure

Property Owner: State

Location: Washington Blvd.

Date: 8/18/2006

Presumed Structure Owner: State

Based On Comment: Property Ownership

Owner Name: MA-DCR

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $277,237.00

Length: 2308 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone:

FIRM Map Elevation: Feet NGVD

Primary Type: Revetment

Primary Material: Stone

Primary Height: 5 to 10 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Revetment slope at 45 degree with 100 to 500 lb. stone. Some loose and jumbled stone. Slope appeared to toe into soft bed.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-038-000-060-100-PHO1A.jpg

035-038-000-060-100-PHO1B.jpg

035-038-000-060-100-PHO1C.jpg

035-038-000-060-100-PHO1D.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-051-000-034-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Atlantic Ave.

Date: 8/1/2006

Presumed Structure Owner: Local

Based On Comment:

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $6,224.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
41 Feet	14 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Concrete seawall (4 foot wide cap) on concrete base (partly exposed). Front face tapered with wave return at top. Some washing out of cement 6 inches above base. Several patches about 2 foot long washing out.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-051-000-034-100-PHO1A.jpg

035-051-000-034-100-PHO1B.jpg

Structure Documents:

TOWN OF HULL	JUN 15 1979	STONY BEACH	035-051-000-034-100-TWN1A
UNKNOWN	APR 12 199	EXISTING	035-051-000-034-100-TWN1B
UNKNOWN	APR 12 199	REPAIR AREA	035-051-000-034-100-TWN1C

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-051-000-038-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Atlantic Ave.	8/1/2006

Presumed Structure Owner:	Based On Comment:
Local	USACE – Permits

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1990	$66,488.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
438 Feet	14 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Coastal Beach	Sand	

Structure Summary :

Wall base is mortared stone seawall in satisfactory condition. Height is 4 feet to 6 feet. Wall top concrete wall (4 feet high) with wave break top. Coastal beach (sand) outshore of wall. Wall top is 30 inches wide. One way road directly behind seawall. Inshore face of wall is 4 feet high above grade. Some grout loss and small voids at base.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-051-000-038-100-PHO1A.jpg

035-051-000-038-100-PHO1B.jpg

Structure Documents:

TOWN OF HULL	JUN 15 1979	STONY BEACH	035-051-000-038-100-TWN1A
UNKNOWN	APR 12 199	EXISTING	035-051-000-038-100-TWN1B
UNKNOWN	APR 12 199	REPAIR AREA	035-051-000-038-100-TWN1C
USACE	APR 12 199	STONEY BEACH	035-051-000-038-100-COE1A.pdf

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-052-000-002-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
State	Gun Rock	8/1/2006

Presumed Structure Owner:	Based On Comment:
State	DEP – Ch 91 License

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1923	$625,680.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
400 Feet	10 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Breakwater	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Breakwater (offshore). Average stone size is 1 to 3 tons. Northern half of structure toppled and lower than mean high water.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-052-000-002-100-PHO1A.jpg

Structure Documents:

MA DPW	APRIL 190	PROPOSED SHORE	035-052-000-002-100-DCR1A
MA DPW	JUNE 1940	PROPOSED	035-052-000-002-100-DCR1B
Commission on	AUG 1928	PROPOSED	035-052-000-004-100-DCR1C
Commission on	JUNE 1917	BREAKWATER	035-052-000-004-100-DCR1D
Commission on	JUNE 1923	PROPOSED	035-052-000-004-100-DCR1E
DEP CH.91	JUNE 1923	PROPOSED	035-052-000-002-100-LIC1A.pdf
MA COMMISSIO	JUN 1917	PROPOSED	035-052-000-002-100-TWN1A
MA DPW	JUN 1940	PROPOSED	035-052-000-003-100-TWN1B
TOWN OF HULL	NOV 15 197	GUN ROCK	035-052-000-004-100-TWN1C
TOWN OF HULL	OCT 4 1989	SITE PLAN &	035-052-000-002-100-TWN1D
USACE	JUN 1960	PROPOSED	035-052-000-002-100-COE1A.pdf

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-052-000-002-100

Key: community-map-block-parcel-structure

USACE	1985	GUN ROCK	035-052-000-002-100-COE1B.pdf

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-052-000-069-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Crescent Beach	8/1/2006

Presumed Structure Owner:	Based On Comment:
Local	DEP – Ch 91 License

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1962	$410,619.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
541 Feet	10 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

30 inch concrete seawall in fair condition. Ledge outshore of wall. Top of wall is cracking but no spalling or breaks. Dumped riprap (500 to 2000 lb. stones) about 20 feet long by 15 feet wide along wall base where house owner stated large hole thru wall (6 feet high by 15 feet long). Some fill loss noted inshore of wall.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

- 035-052-000-069-100-PHO1A.jpg
- 035-052-000-069-100-PHO1B.jpg
- 035-052-000-069-100-PHO1C.jpg

Structure Documents:

MA DPW	SEPT 1961	PROPOSED SHORE	035-052-000-069-100-DCR1A
MA DPW	OCT 1962	PROPOSED STONE	035-052-000-069-100-DCR1A
MA DPW	MAY 1966	PROPOSED SHORE	035-052-000-069-100-DCR1A
MA DPW	SEP 1961	PROPOSED SHORE	035-052-000-069-100-TWN1A
MA DPW	OCT 1962	PROPOSED STONE	035-052-000-069-100-TWN1B
MA DPW	MAY 1966	PROPOSED SHORE	035-052-000-069-100-TWN1C
USACE	1996	GUN ROCK	035-052-000-069-100-COE1A.pdf
USACE	MAY 1966	PROPOSED SHORE	035-052-000-069-100-COE1B.pdf

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-052-000-075-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Atlantic Ave.

Date: 8/1/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $23,833.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
157 Feet	12 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Stone masonry wall at edge of road in satisfactory condition. Railing in poor condition and not suitable for edge of road.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-052-000-075-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-053-000-042-100

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Crescent Beach	8/1/2006

Presumed Structure Owner:	Based On Comment:
Local	DEP – Ch 91 License

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	1930	$1,440,780.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
708 Feet	10 Feet NAVD 88	V4	25 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	10 to 15 Feet

Structure Summary :

3' wide concrete seawall in satisfactory condition. Placed rip rap slope @ 1 on 1 in front. Average stone size is 1-2 ton. Toe of rip rap has minor movement. Rip rap was grouted, although grout is cracking and breaking rip rap top about 3' below top of wall. The seawall has cracks in the construction joints. There is also overwash problems with landward ballast during nor-easters.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-053-000-042-100-PHO1A.jpg

Structure Documents:

MA DPW	JUNE 1939	PROPOSED	035-053-000-042-100-DCR1A
MA DPW	SEPT 1940	PROPOSED	035-053-000-042-100-DCR1B
MA DPW	NOV 1941	PROPOSED RIP	035-053-000-042-100-DCR1C
MA DPW	MAY 1946	PROPOSED	035-053-000-042-100-DCR1D
MA DPW	FEB 1955	PROPOSED SHORE	035-053-000-042-100-DCR1E
MA DPW	SEPT 1959	PROPOSED SHORE	035-053-000-042-100-DCR1F
Commission on	OCT 1929	GUN ROCK TO	035-053-000-042-100-DCR1G
MA DPW	SEPT 1961	PROPOSED SHORE	035-053-000-042-100-DCR1H
MA DPW	OCT 1962	PROPOSED STONE	035-053-000-042-100-DCR1I
MA DPW	MAY 1966	PROPOSED SHORE	035-053-000-042-100-DCR1J
DEP CH.91	JUNE 8 198	PLAN	035-053-000-042-100-LIC1A.pdf

Prepared By: Bourne Consulting Engineering

MA DPW	SEP 1940	PROPOSED	035-053-000-042-100-TWN1A
MA DPW	OCT 1932	PROPOSED	035-053-000-042-100-TWN1B
MA DPW		PROPOSED SEA	035-053-000-042-100-TWN1C
MA DPW	JUN 1939	PROPOSED	035-053-000-042-100-TWN1D
MA DPW	NOV 1941	PROPOSED RIP	035-053-000-042-100-TWN1E
MA DPW	MAY 1946	PROPOSED	035-053-000-042-100-TWN1F
MA DPW	FEB 1955	PROPOSED SHORE	035-053-000-042-100-TWN1G
MA DPW	SEP 1959	PROPOSED SHORE	035-053-000-042-100-TWN1H
MA DPW	SEP 1961	PROPOSED SHORE	035-053-000-042-100-TWN1I
MA DPW	OCT 1962	PROPOSED STONE	035-053-000-042-100-TWN1J
MA DPW	MAY 1966	PROPOSED SHORE	035-053-000-042-100-TWN1K
TOWN OF HULL	JUN 15 1979	CRESCENT BEACH	035-053-000-042-100-TWN1L
TOWN OF HULL	OCT 3 1989	SITE PLAN AND	035-053-000-042-100-TWN1M
		GUN ROCK	
USACE	MAY 1966	PROPOSED SHORE	035-053-000-042-100-COE1B.pdf

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-053-000-042-200

Key: community-map-block-parcel-structure

Property Owner:	Location:	Date:
Local	Crescent Beach	8/1/2006

Presumed Structure Owner:	Based On Comment:
Local	Property Ownership

Owner Name:	Earliest Structure Record:	Estimated Reconstruction/Repair Cost:
Hull	0	$533,170.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
262 Feet	10 Feet NAVD 88	V4	25 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Concrete	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	

Structure Summary :

30 inch concrete seawall with placed rip rap outshore. Top of rip rap about 5 feet below top wall. Rip rap grouted, although cracking. Rip rap top about 3 feet below wall top. The seawall has cracks in the construction joints. There is also overwash problems with landward ballast dring nor-easters.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-053-000-042-200-PHO2A.jpg

035-053-000-042-200-PHO2B.jpg

Structure Documents:

MA DPW	OCT 1930	GUN ROCK TO	035-053-000-042-100-DCR2A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-054-000-020-100

Key: community-map-block-parcel-structure

Property Owner: Private

Location: Green Hill

Date: 8/1/2006

Presumed Structure Owner: Unknown

Based On Comment:

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $382,536.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
252 Feet	14 Feet NAVD 88	V4	20 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Concrete

Primary Height: 5 to 10 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

30" wide concrete seawall in poor condition. Broken for approximately half of length with severe spalling. Concrete seawall ends at ledge. Material loss behind wall. There is some areas above the wall where the slopes have failed.

Condition Rating	D Poor
Level of Action	Major
Description	Structure exhibits advanced levels of deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure has strong risk of significant damage and possible failure during a major coastal storm. Structure should be monitored until repairs/reconstruction can be initiated. Actions taken to reconstruct structure to regain full capacity to resist a major coastal storm. Landform eroded, stability threatened. Landform not adequate to provide protection during major coastal storm. Actions taken to recreate landform to adequate limits for full protection from a major coastal storm.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-054-000-020-100-PHO1A.jpg

035-054-000-020-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-054-000-022-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Green Hill

Date: 8/1/2006

Presumed Structure Owner: Local

Based On Comment: DEP - Ch 91 License

Owner Name: Hull

Earliest Structure Record: 1858

Estimated Reconstruction/Repair Cost: $22,472.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
266 Feet	14 Feet NAVD 88	V4	20 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Concrete

Primary Height: Under 5 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

30" wide concrete seawall in satisfactory condition with wave break face. Severe deterioration at joints. Some vertical cracks. There is some areas above the seawall where the slopes have failed.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-054-000-022-100-PHO1A.jpg

Structure Documents:

MA DPW	OCT 1957	PROPOSED	035-054-000-022-100-DCR1A
MA DPW	OCT 1957	PROPOSED	035-054-000-022-100-TWN1A

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-054-000-028-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Crescent Beach

Date: 8/1/2006

Presumed Structure Owner: Local

Based On Comment: DCR - Contract Drawings

Owner Name: Hull

Earliest Structure Record: 1945

Estimated Reconstruction/Repair Cost: $16,896.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
200 Feet	10 Feet NAVD 88	V4	20 Feet NGVD

Primary Type: Bulkhead/ Seawall

Primary Material: Concrete

Primary Height: Under 5 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Concrete seawall less than 5' high located at base of earth slope. 3' to 0" wide at cap and in satisfactory condition. No revetment found as part of this structure.

Condition Rating	B Good
Level of Action	Minor
Description	Structure observed to exhibit very minor problems, superficial in nature. Minor erosion to landform is present. Structure / landform adequate to provide protection from a major coastal storm with no damage. Actions taken to prevent / limit future deterioration and extend life of structure.

Priority Rating	IV High Priority
Action	Consider for Next Project Construction Listing
Description	High Value Inshore Structures with Potential for Infrastructure Damage and/or Moderate Density Residential Dwellings (1-10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-054-000-028-100-PHO1A.jpg

Structure Documents:

MA DPW	NOV 1945	PROPOSED	035-054-000-028-100-DCR1A
MA DPW	JUNE 1956	PROPOSED SEA	035-054-000-028-100-DCR1B
MA DPW	NOV 1945	PROPOSED	035-054-000-028-100-TWN1A
MA DPW	JUN 1956	PROPOSED SEA	035-054-000-028-100-TWN1B

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-054-000-042-100

Key: community-map-block-parcel-structure

Property Owner: State

Location: Seal Rock

Date: 8/1/2006

Presumed Structure Owner: Federal

Based On Comment: DEP - Ch 91 License

Owner Name: Federal

Earliest Structure Record: 1958

Estimated Reconstruction/Repair Cost: $0.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
709 Feet	9 Feet NAVD 88	V4	20 Feet NGVD

Primary Type: Breakwater

Primary Material: Stone

Primary Height: Over 15 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Breakwater offshore

Federal Structure - No assessment made.

Structure Images:

035-054-000-042-100-PHO1A.jpg

035-054-000-042-100-PHO1B.jpg

Structure Documents:

MA DPW	FEB 1955	PROPOSED SHORE	035-054-000-042-100-DCR1A
MA DPW	APRIL 1958	PROPOSED STONE	035-054-000-042-100-DCR1B
MA DPW	MAY 1966	PROPOSED SHORE	035-054-000-042-100-DCR1C
MA DPW	APR 1958	PROPOSED STONE	035-054-000-042-100-TWN1A
MA DPW	MAY 1966	PROPOSED SHORE	035-054-000-042-100-TWN1B
MA DPW	FEB 1955	PROPOSED SHORE	035-054-000-042-100-TWN1C
USACE	MAY1958	PROPOSED	035-054-000-042-100-COE1A.pdf
USACE	MAY 1966	PROPOSED SHORE	035-054-000-042-100-COE1B.pdf

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-056-000-030-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Stony Beach

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $217,240.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
278 Feet	17 Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Revetment	Stone	10 to 15 Feet

Secondary Type:	Secondary Material:	Secondary Height:

Structure Summary :

Revetment seawall in fair condition. Many loose and dislodged stones. Wall is not fit tightly together and some toppling of structure.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	III Moderate Priority
Action	Consider for Active Project Improvement Listing
Description	Inshore Structures with potential for Infrastructure Damage and/or Limited Residential Dwellings (<1 dwelling impacted / 100 feet of shoreline)

Structure Images:

035-056-000-030-100-PHO1A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-057-000-009-100

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Stony Beach

Date: 8/3/2006

Presumed Structure Owner: Unknown

Based On Comment: Property Ownership

Owner Name:

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $91,080.00

Length:	Top Elevation:	FIRM Map Zone:	FIRM Map Elevation:
120 Feet	Feet NAVD 88	V4	20 Feet NGVD

Primary Type:	Primary Material:	Primary Height:
Bulkhead/ Seawall	Stone	5 to 10 Feet

Secondary Type:	Secondary Material:	Secondary Height:
Revetment	Stone	

Structure Summary :

Stone block seawall (dryset) with coastal beach oushore. Eastern slope (vegetated) inshore of wall extending more than 20 feet higher at 1 on 2 slope. Wall appeared to lean outshore slightly. Revetment is in poor condition. 15 foot failed section (about 3rd stone) wall 2nd half is satisfactory condition. Revetment is fair condition.

Condition Rating	C Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	V Immediate / Highest Priority
Action	Consider For Immediate Action Due to Public Safety and Welfare Issues
Description	Critical Inshore Structures Present with Potential for Infrastructure Damage and/or High Density Residential Dwellings Condition of structure may warrant emergency stabilization as failure may result in potential loss of property and/or life. (>10 dwellings impacted / 100 feet of shoreline)

Structure Images:

035-057-000-009-100-PHO1A.jpg

035-057-000-009-100-PHO1B.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

CZM South Shore Coastal Infrastructure Inventory and Assessment

Structure Assessment Form

Town: Hull

Structure ID: 035-057-000-009-200

Key: community-map-block-parcel-structure

Property Owner: Local

Location: Stony Beach

Date: 8/3/2006

Presumed Structure Owner: Local

Based On Comment: Property Ownership

Owner Name: Hull

Earliest Structure Record: 0

Estimated Reconstruction/Repair Cost: $553,743.00

Length: 834 Feet

Top Elevation: Feet NAVD 88

FIRM Map Zone: V4

FIRM Map Elevation: 20 Feet NGVD

Primary Type: Groin/ Jetty

Primary Material: Stone

Primary Height: Under 5 Feet

Secondary Type:

Secondary Material:

Secondary Height:

Structure Summary :

Stones toppled and some small gaps in groin. Stone size is 500 to 1000 lbs.

Condition Rating	C
	Fair
Level of Action	Moderate
Description	Structure is sound but may exhibit minor deterioration, section loss, cracking, spalling, undermining, and/or scour. Structure adequate to withstand major coastal storm with little to moderate damage. Actions taken to reinforce structure to provide full protection from major coastal storm and for extending life of structure. Moderate wind or wave damage to landform exists. Landform may not be sufficient to fully protect shoreline during a major coastal storm. Actions taken to provide addition material for full protection and extended life.

Priority Rating	I
	None
Action	Long Term Planning Considerations
Description	No Inshore Structures or Residential Dwelling Units Present

Structure Images: 035-057-000-009-200-PHO2A.jpg

Structure Documents:

Prepared By: Bourne Consulting Engineering

Section IV

Town of Hull

Structure Photographs

TOWN: HULL
SOURCE: BCE - FIELD PHOTOGRAPHS
LOCATION: Bourne Consulting Engineering
DATE OF RESEARCH: AUGUST 2006

BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
035-001-000-001-100	035-001-000-001-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-001-000-001-100	035-001-000-001-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-001-000-001-100	035-001-000-001-100-PHO1C.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-001-000-002-100	035-001-000-002-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-001-000-002-100	035-001-000-002-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-001-000-036-100	035-001-000-036-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-001-000-036-100	035-001-000-036-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-001-000-036-200	035-001-000-036-200-PHO2A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-001-000-036-200	035-001-000-036-200-PHO2B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-002-000-001-100	035-002-000-001-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-002-000-002-100	035-002-000-002-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-002-000-002-100	035-002-000-002-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-002-000-003-100	035-002-000-003-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-002-000-003-100	035-002-000-003-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-002-000-007-100	035-002-000-007-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-002-000-021-100	035-002-000-021-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-002-000-021-100	035-002-000-021-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-002-000-023-100	035-002-000-023-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-002-000-023-100	035-002-000-023-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-003-000-047-100	035-003-000-047-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-003-000-047-100	035-003-000-047-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-004-000-040-100	035-004-000-040-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey

TOWN: HULL
SOURCE: BCE - FIELD PHOTOGRAPHS
LOCATION: Bourne Consulting Engineering
DATE OF RESEARCH: AUGUST 2006

035-005-000-075-100	035-005-000-075-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-005-000-075-100	035-005-000-075-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-005-000-075-100	035-005-000-075-100-PHO1C.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-005-000-075-100	035-005-000-075-100-PHO1D.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-005-000-086-100	035-005-000-086-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-005-000-096-100	035-005-000-096-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-005-000-096-100	035-005-000-096-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-005-000-100-100	035-005-000-100-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-006-000-042-100	035-006-000-042-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-006-000-042-100	035-006-000-042-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-006-000-067-100	035-006-000-067-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-006-000-067-100	035-006-000-067-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-006-000-075-100	035-006-000-075-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-006-000-075-100	035-006-000-075-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-007-000-006-100	035-007-000-006-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-007-000-006-100	035-007-000-006-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-007-000-008-100	035-007-000-008-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-007-000-052-100	035-007-000-052-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-007-000-052-100	035-007-000-052-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-008-000-017-100	035-008-000-017-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-008-000-018-100	035-008-000-018-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-008-000-021-100	035-008-000-021-100-PHO1A.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-008-000-021-100	035-008-000-021-100-PHO1B.jpg		Bourne Consultting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey

TOWN: HULL
SOURCE: BCE - FIELD PHOTOGRAPHS
LOCATION: Bourne Consulting Engineering
DATE OF RESEARCH: AUGUST 2006

035-008-000-022-100	035-008-000-022-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-008-000-022-100	035-008-000-022-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-008-000-022-100	035-008-000-022-100-PHO1C.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-009-000-033-100	035-009-000-033-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-009-000-033-200	035-009-000-033-200-PHO2A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-009-000-044-100	035-009-000-044-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-009-000-044-200	035-009-000-044-100-PHO2A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-009-000-044A-100	035-009-000-044A-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-009-000-044A-200	035-009-000-044A-100-PHO2A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-010-000-003-100	035-010-000-003-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-010-000-003-100	035-010-000-003-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-010-000-003-100	035-010-000-003-100-PHO1C.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-010-000-003-200	035-010-000-003-200-PHO2A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-010-000-003-200	035-010-000-003-200-PHO2B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-010-000-020-100	035-010-000-020-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-010-000-020-200	035-010-000-020-200-PHO2A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-010-000-020-200	035-010-000-020-200-PHO2B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-010-000-084-100	035-010-000-084-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-010-000-084-100	035-010-000-084-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-010-000-084-200	035-010-000-084-200-PHO2A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-011-000-010-100	035-011-000-010-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-011-000-010-100	035-011-000-010-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-012-000-075-100	035-012-000-075-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey

TOWN: HULL
SOURCE: BCE - FIELD PHOTOGRAPHS
LOCATION: Bourne Consulting Engineering
DATE OF RESEARCH: AUGUST 2006

035-012-000-108-100	035-012-000-108-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-012-000-108-100	035-012-000-108-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-013-000-046-100	035-013-000-046-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-013-000-046-100	035-013-000-046-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-014-000-048-100	035-014-000-048-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-014-000-048-200	035-014-000-048-200-PHO2A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-014-000-080-100	035-014-000-080-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-014-000-084-100	035-014-000-084-100-PHO1A.jpb		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-014-000-109-100	035-014-000-109-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-014-000-109-100	035-014-000-109-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-014-000-109-100	035-014-000-109-100-PHO1C.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-016-000-010-100	035-016-000-010-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-016-000-010-100	035-016-000-010-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-016-000-010-100	035-016-000-010-100-PHO1C.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-016-000-010-100	035-016-000-010-100-PHO1D.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-018-000-069-100	035-018-000-069-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-018-000-069-100	035-018-000-069-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-018-000-144-100	035-018-000-144-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-018-000-145-100	035-018-000-145-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-018-000-150-100	035-018-000-150-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-018-000-150-100	035-018-000-150-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-018-000-150-100	035-018-000-150-100-PHO1C.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-019-000-041-100	035-019-000-041-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey

TOWN: HULL
SOURCE: BCE - FIELD PHOTOGRAPHS
LOCATION: Bourne Consulting Engineering
DATE OF RESEARCH: AUGUST 2006

035-019-000-041-100	035-019-000-041-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-020-000-143-100	035-020-000-143-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-020-000-143-100	035-020-000-143-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-024-000-110-100	035-024-000-110-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-024-000-110-100	035-024-000-110-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-024-000-110-100	035-024-000-110-100-PHO1C.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-024-000-110-100	035-024-000-110-100-PHO1D.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-024-000-110-100	035-024-000-110-100-PHO1E.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-024-000-110-100	035-024-000-110-100-PHO1F.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-027-000-054-100	035-027-000-054-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-027-000-054-100	035-027-000-054-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-027-000-054-200	035-027-000-054-200-PHO2A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-027-000-054-300	035-027-000-054-300-PHO3A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-027-000-054-300	035-027-000-054-300-PHO3B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-030-000-073-100	035-030-000-073-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-030-000-073-100	035-030-000-073-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-030-000-073-100	035-030-000-073-100-PHO1C.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-032-000-051-100	035-032-000-051-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-032-000-051-100	035-032-000-051-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-032-000-051-100	035-032-000-051-100-PHO1C.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-033-000-010-100	035-033-000-010-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-034-000-001-100	035-034-000-001-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-034-000-001-100	035-034-000-001-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey

TOWN: HULL
SOURCE: BCE - FIELD PHOTOGRAPHS
LOCATION: Bourne Consulting Engineering
DATE OF RESEARCH: AUGUST 2006

035-034-000-001-100	035-034-000-001-100-PHO1C.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-035-000-014-100	035-035-000-014-100-PHO1A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-035-000-014-100	035-035-000-014-100-PHO1B.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-035-000-014-200	035-035-000-014-200-PHO2A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-036-000-022-100	035-036-000-022-100-PHO1A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-036-000-022-100	035-036-000-022-100-PHO1B.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-036-000-022-100	035-036-000-022-100-PHO1C.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-036-000-180-100	035-036-000-180-100-PHO1A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-036-000-180-100	035-036-000-180-100-PHO1B.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-036-000-180-100	035-036-000-180-100-PHO1C.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-006A-100	035-037-000-006A-100-PHO1A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-006A-100	035-037-000-006A-100-PHO1B.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-007-100	035-037-000-007-100-PHO1A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-007-200	035-037-000-007-200-PHO2A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-007-300	035-037-000-007-300-PHO3A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-007-300	035-037-000-007-300-PHO3B.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-007-300	035-037-000-007-300-PHO3C.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-007-400	035-037-000-007-400-PHO4A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-007-400	035-037-000-007-400-PHO4B.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-007-400	035-037-000-007-400-PHO4C.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-010-100	035-037-000-010-100-PHO1A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-010-100	035-037-000-010-100-PHO1B.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-010-200	035-037-000-010-200-PHO2A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey

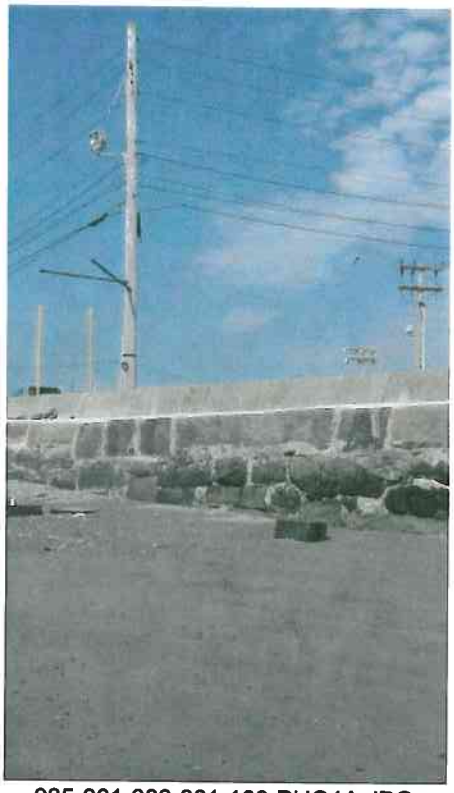
TOWN: HULL
SOURCE: BCE - FIELD PHOTOGRAPHS
LOCATION: Bourne Consulting Engineering
DATE OF RESEARCH: AUGUST 2006

035-037-000-010-200	035-037-000-010-200-PHO2B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-010-300	035-037-000-010-300-PHO3A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-010-300	035-037-000-010-300-PHO3B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-010-400	035-037-000-010-400-PHO4A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-037-000-010-400	035-037-000-010-400-PHO4B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-038-000-060-100	035-038-000-060-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-038-000-060-100	035-038-000-060-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-038-000-060-100	035-038-000-060-100-PHO1C.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-038-000-060-100	035-038-000-060-100-PHO1D.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-051-000-034-100	035-051-000-034-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-051-000-034-100	035-051-000-034-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-051-000-038-100	035-051-000-038-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-051-000-038-100	035-051-000-038-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-052-000-002-100	035-052-000-002-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-052-000-069-100	035-052-000-069-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-052-000-069-100	035-052-000-069-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-052-000-069-100	035-052-000-069-100-PHO1C.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-052-000-075-100	035-052-000-075-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-053-000-042-100	035-053-000-042-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-053-000-042-200	035-053-000-042-200-PHO2A.jpg		Bourne Consulting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-053-000-042-200	035-053-000-042-200-PHO2B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-054-000-020-100	035-054-000-020-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-054-000-020-100	035-054-000-020-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey

TOWN: HULL
SOURCE: BCE - FIELD PHOTOGRAPHS
LOCATION: Bourne Consulting Engineering
DATE OF RESEARCH: AUGUST 2006

035-054-000-022-100	035-054-000-022-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-054-000-028-100	035-054-000-028-100-PHO1A.jpg		Bourne Consullling Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-054-000-042-100	035-054-000-042-100-PHO1A.jpg		Bourne Consullling Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-054-000-042-100	035-054-000-042-100-PHO1B.jpg		Bourne Consullling Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-056-000-030-100	035-056-000-030-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-057-000-009-100	035-057-000-009-100-PHO1A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-057-000-009-100	035-057-000-009-100-PHO1B.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey
035-057-000-009-200	035-057-000-009-200-PHO2A.jpg		Bourne Consullting Engineering	HULL	August 2006	DIGITAL IMAGE	1	Structure Location	Structure Condtion Photo at Time of Survey

South Shore Coastal Infrastructure and Assessment

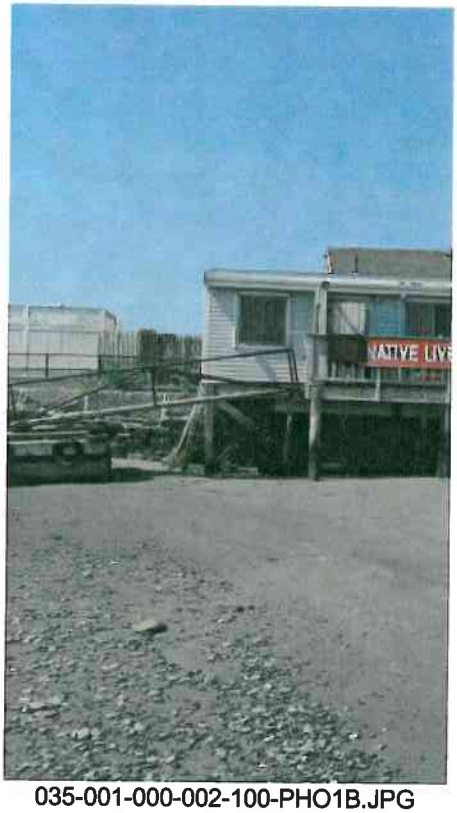


035-001-000-001-100-PHO1A.JPG

035-001-000-001-100-PHO1B.JPG

035-001-000-001-100-PHO1C.JPG

035-001-000-002-100-PHO1A.JPG

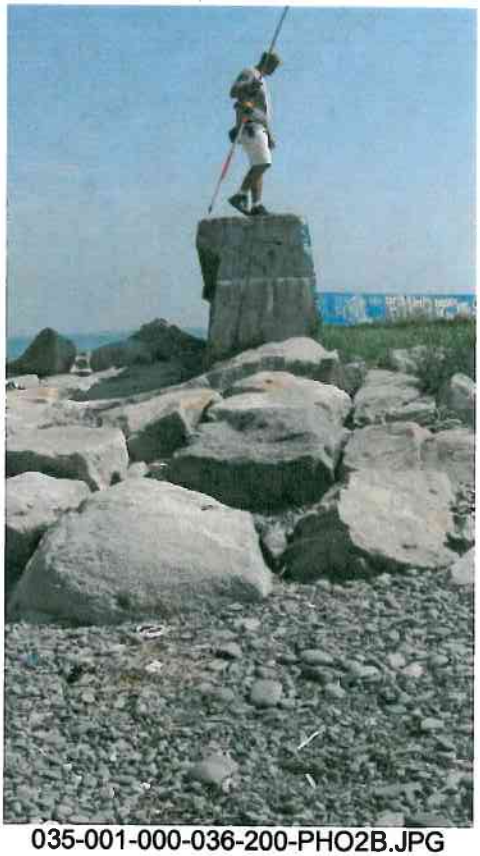


035-001-000-002-100-PHO1B.JPG

035-001-000-036-100-PHO1A.JPG

035-001-000-036-100-PHO1B.JPG

035-001-000-036-200-PHO2A.JPG



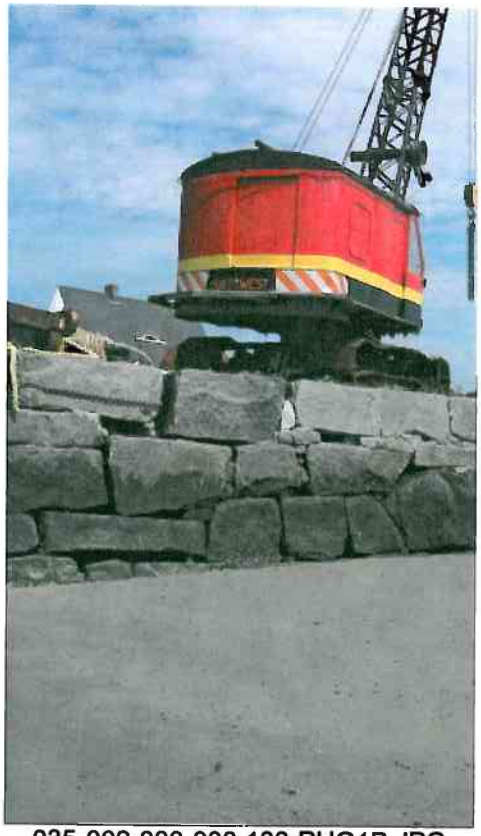
035-001-000-036-200-PHO2B.JPG

035-002-000-001-100-PHO1A.JPG

035-002-000-002-100-PHO1A.JPG

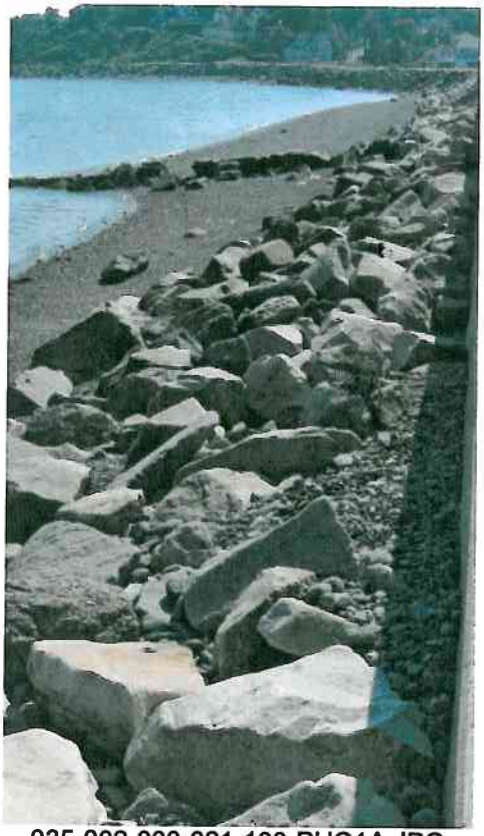
035-002-000-002-100-PHO1B.JPG

035-002-000-003-100-PHO1A.JPG

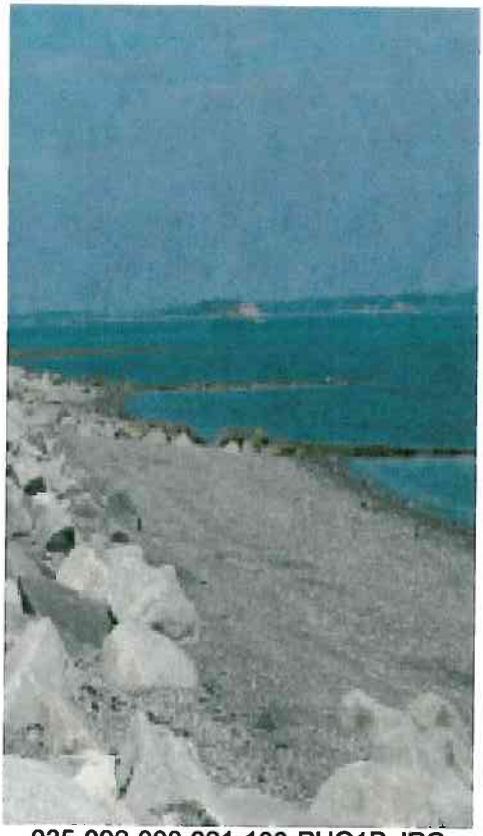


035-002-000-003-100-PHO1B.JPG

035-002-000-007-100-PHO1A.JPG

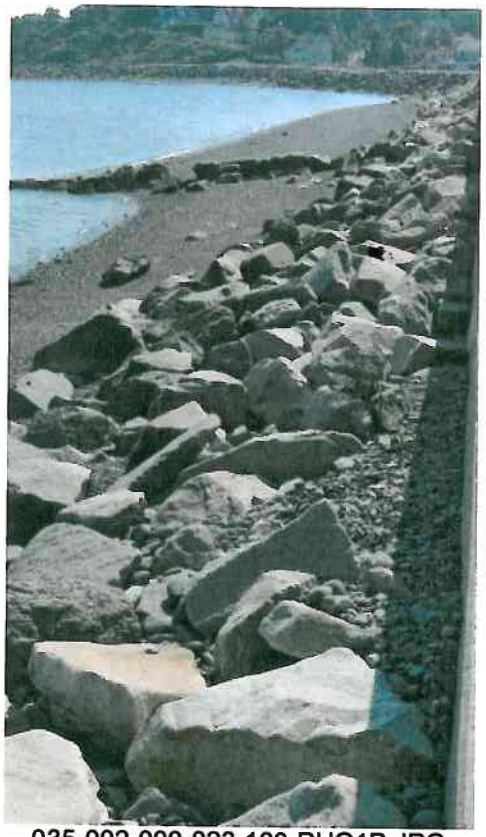


035-002-000-021-100-PHO1A.JPG



035-002-000-021-100-PHO1B.JPG

035-002-000-023-100-PHO1A.JPG



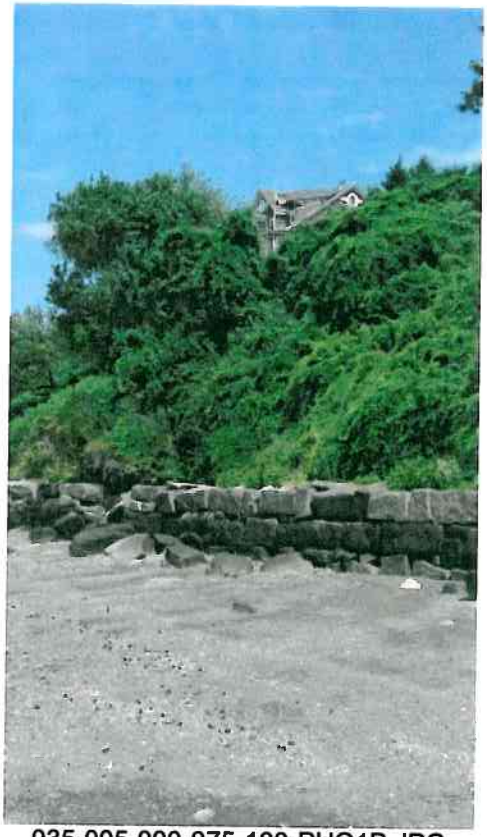
035-002-000-023-100-PHO1B.JPG

035-003-000-047-100-PHO1A.JPG

035-003-000-047-100-PHO1B.JPG

035-004-000-040-100-PHO1A.JPG

035-005-000-075-100-PHO1A.JPG



035-005-000-075-100-PHO1B.JPG

035-005-000-075-100-PHO1C.JPG

035-005-000-075-100-PHO1D.JPG

035-005-000-086-100-PHO1A.JPG

035-005-000-096-100-PHO1A.JPG

035-005-000-096-100-PHO1B.JPG

035-005-000-100-100-PHO1A.JPG

035-006-000-042-100-PHO1A.JPG

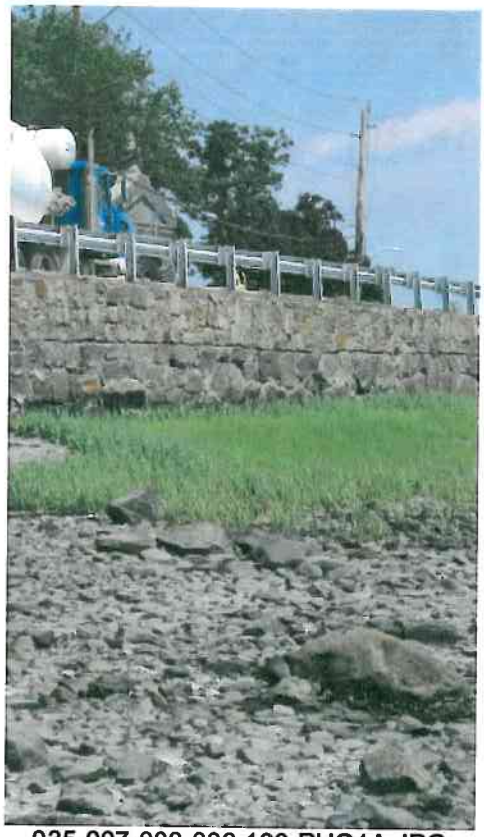
035-006-000-042-100-PHO1B.JPG

035-006-000-067-100-PHO1A.JPG

035-006-000-067-100-PHO1B.JPG

035-006-000-075-100-PHO1A.JPG

035-006-000-075-100-PHO1B.JPG

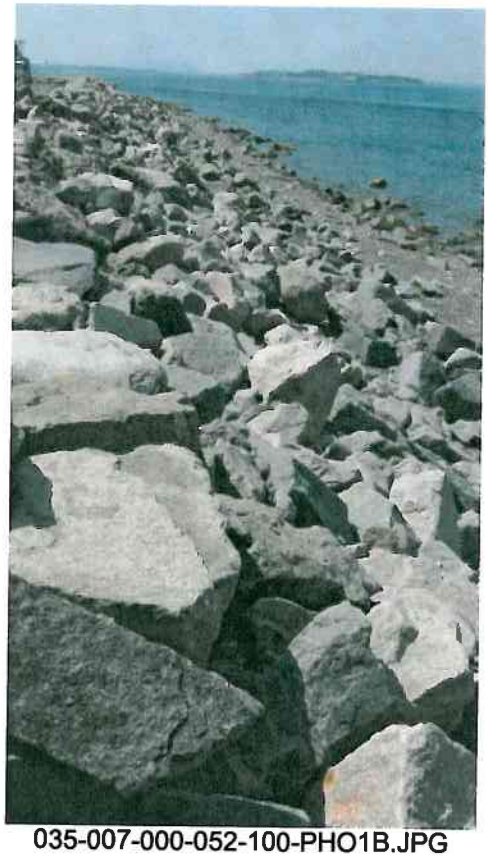


035-007-000-006-100-PHO1A.JPG

035-007-000-006-100-PHO1B.JPG

035-007-000-008-100-PHO1A.JPG

035-007-000-052-100-PHO1A.JPG

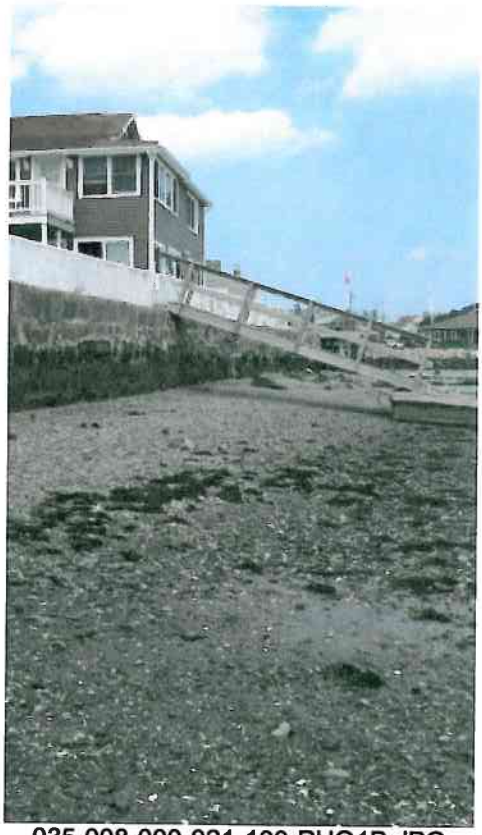


035-007-000-052-100-PHO1B.JPG

035-008-000-017-100-PHO1A.JPG

035-008-000-018-100-PHO1A.JPG

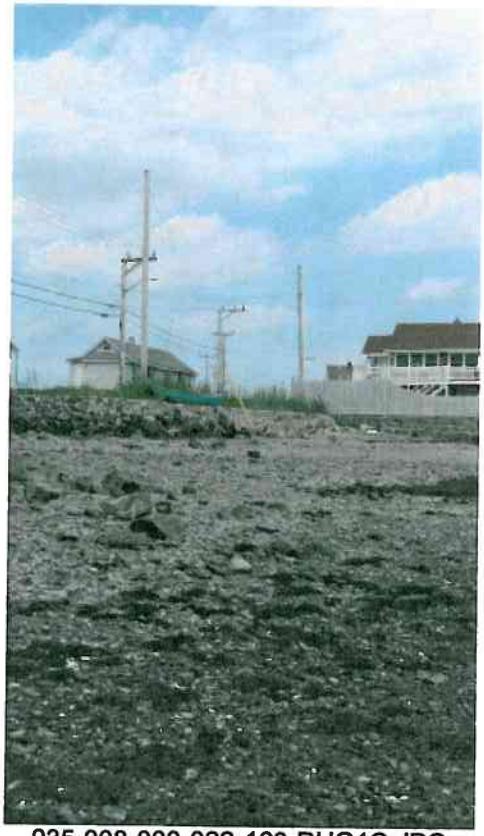
035-008-000-021-100-PHO1A.JPG



035-008-000-021-100-PHO1B.JPG

035-008-000-022-100-PHO1A.JPG

035-008-000-022-100-PHO1B.JPG

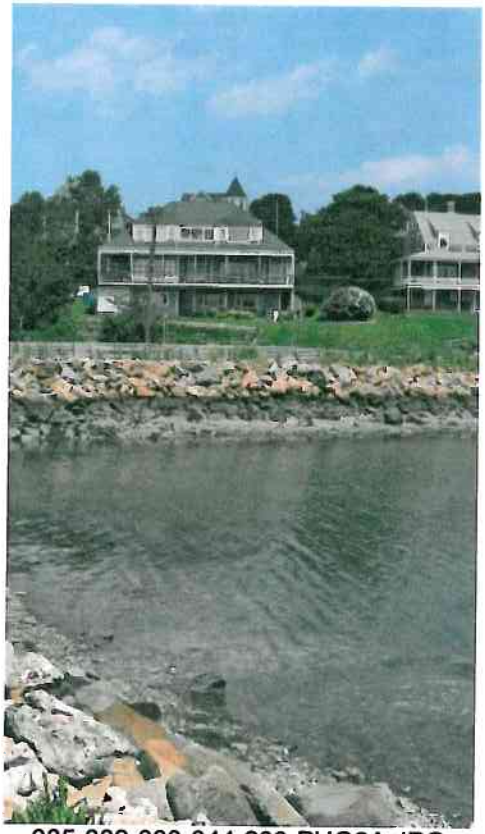


035-008-000-022-100-PHO1C.JPG

035-009-000-033-100-PHO1A.JPG

035-009-000-033-200-PHO2A.JPG

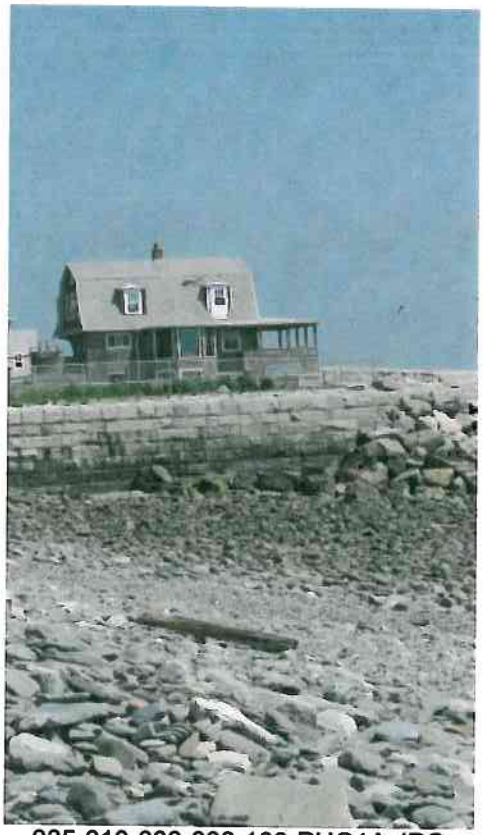
035-009-000-044-100-PHO1A.JPG



035-009-000-044-200-PHO2A.JPG

035-009-000-044A-100-PHO1A.JPG

035-009-000-044A-200-PHO2A.JPG



035-010-000-003-100-PHO1A.JPG

035-010-000-003-100-PHO1B.JPG

035-010-000-003-100-PHO1C.JPG

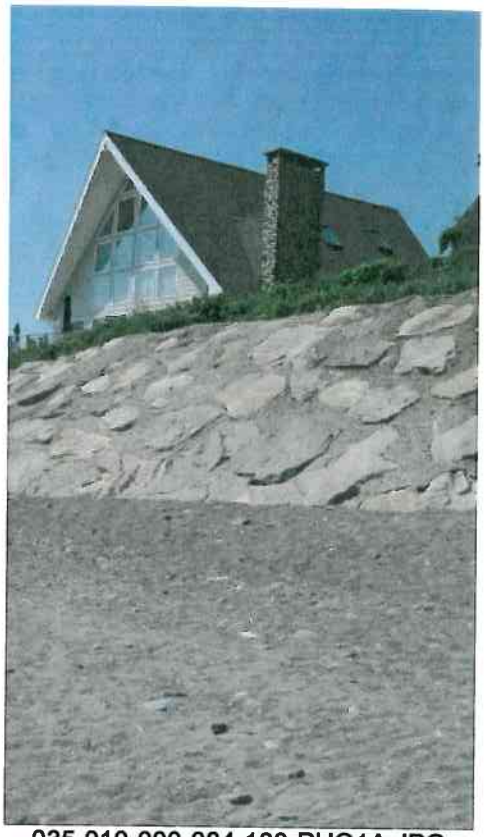
035-010-000-003-200-PHO2A.JPG

035-010-000-003-200-PHO2B.JPG

035-010-000-020-100-PHO1A.JPG

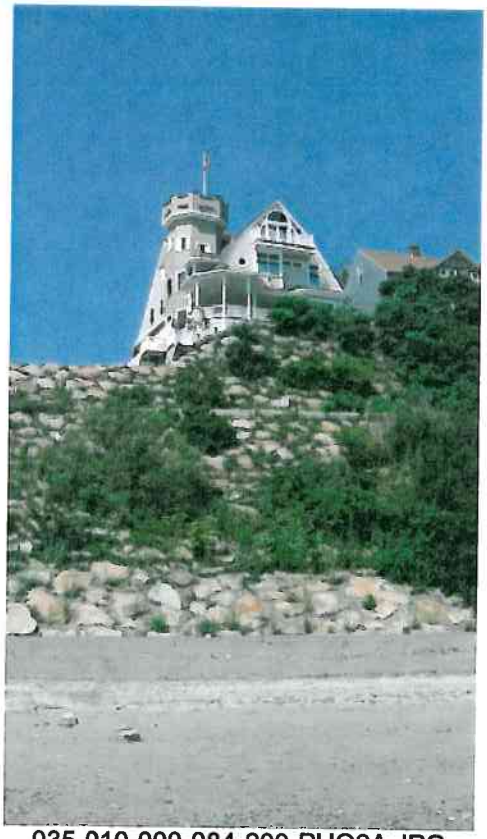
035-010-000-020-200-PHO2A.JPG

035-010-000-020-200-PHO2B.JPG



035-010-000-084-100-PHO1A.JPG

035-010-000-084-100-PHO1B.JPG

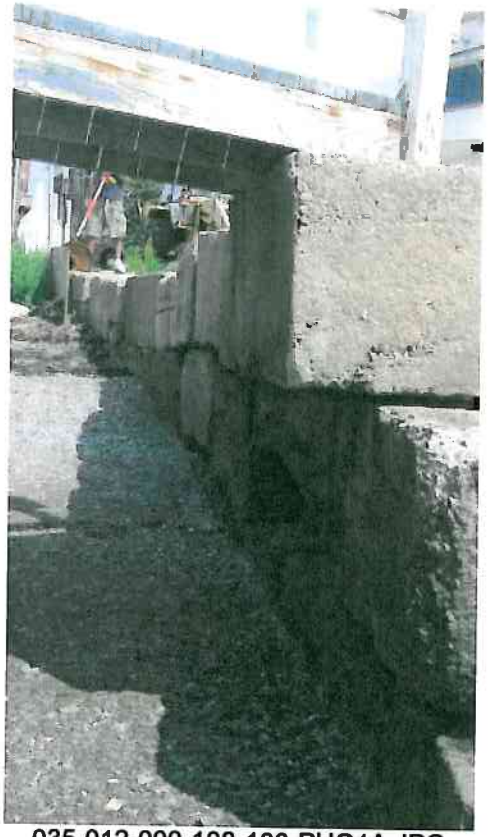


035-010-000-084-200-PHO2A.JPG

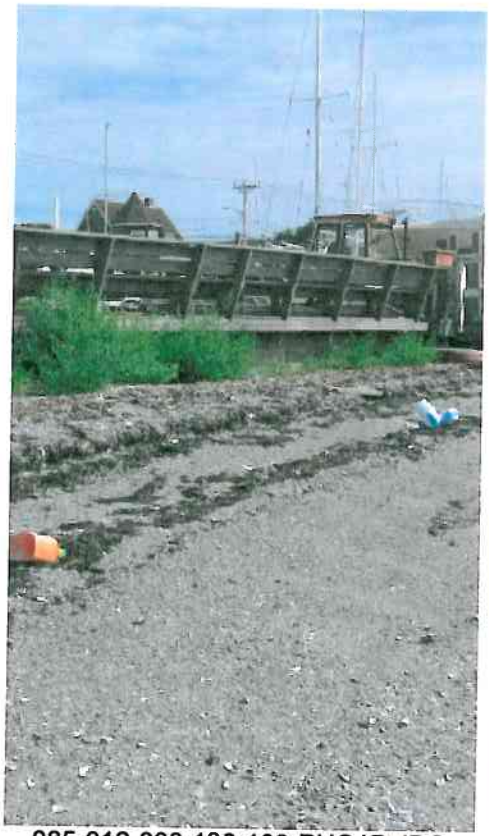
035-011-000-010-100-PHO1A.JPG

035-011-000-010-100-PHO1B.JPG

035-012-000-075-100-PHO1A.JPG



035-012-000-108-100-PHO1A.JPG



035-012-000-108-100-PHO1B.JPG

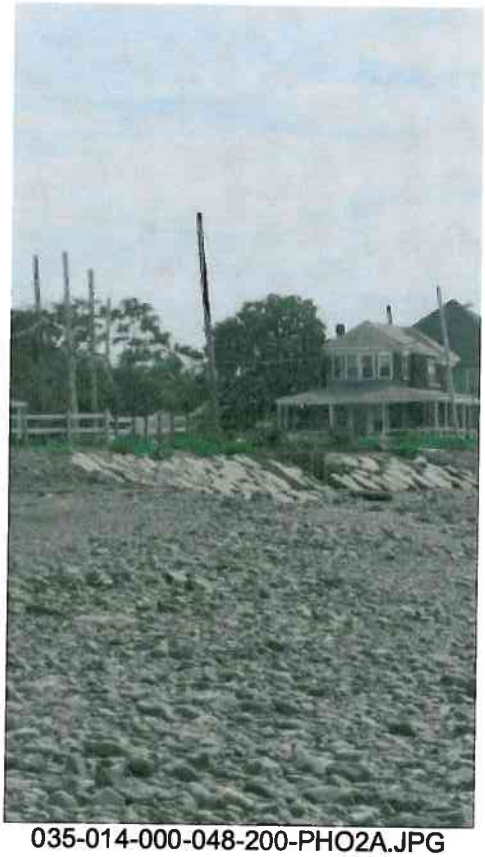
035-012-000-110-100-PHO1A.JPG

035-012-000-110-100-PHO1B.JPG

035-013-000-046-100-PHO1A.JPG

035-013-000-046-100-PHO1B.JPG

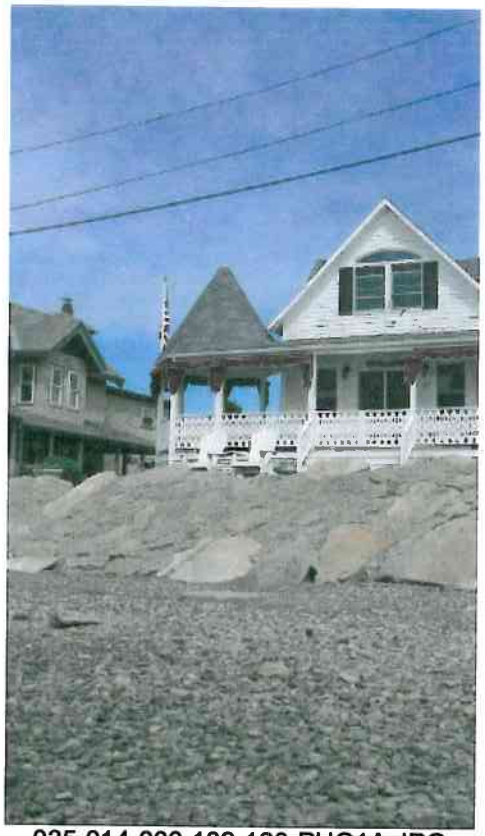
035-014-000-048-100-PHO1A.JPG



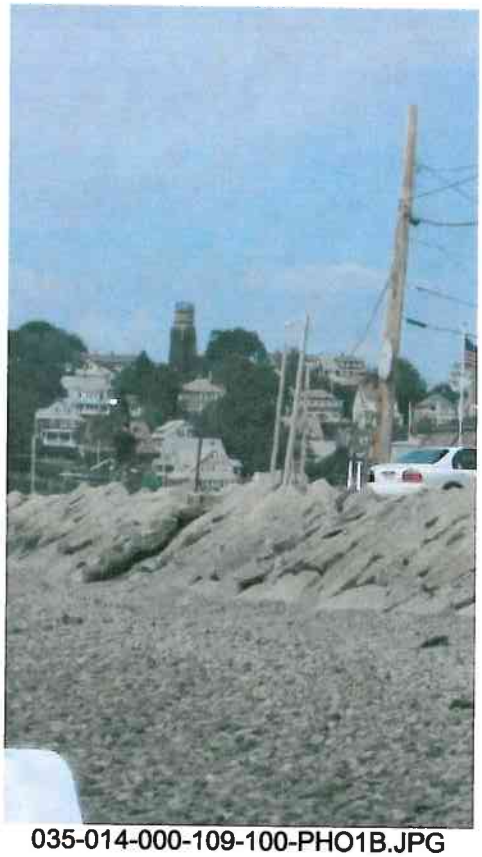
035-014-000-048-200-PHO2A.JPG

035-014-000-080-100-PHO1A.JPG

035-014-000-084-100-PHO1A.JPG



035-014-000-109-100-PHO1A.JPG



035-014-000-109-100-PHO1B.JPG

035-014-000-109-100-PHO1C.JPG

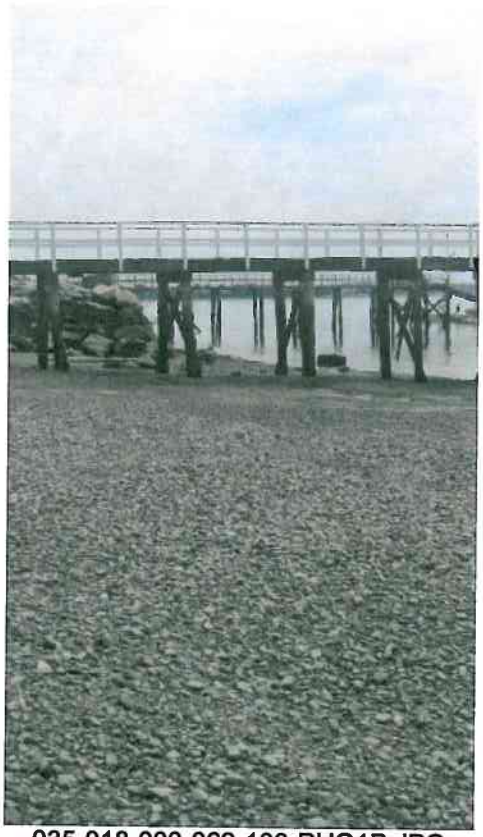
035-016-000-010-100-PHO1A.JPG

035-016-000-010-100-PHO1B.JPG

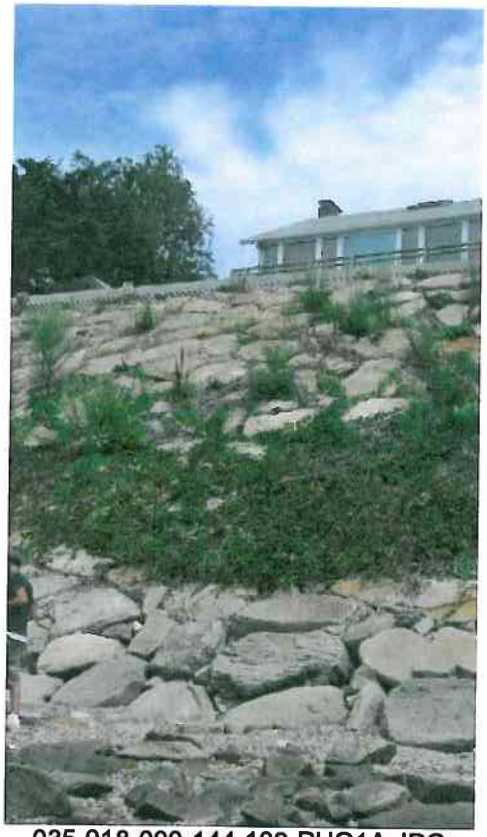
035-016-000-010-100-PHO1C.JPG

035-016-000-010-100-PHO1D.JPG

035-018-000-069-100-PHO1A.JPG



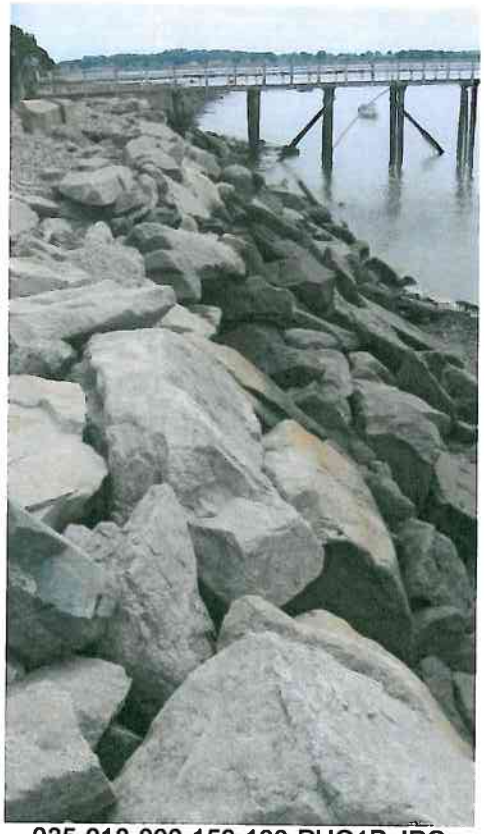
035-018-000-069-100-PHO1B.JPG



035-018-000-144-100-PHO1A.JPG

035-018-000-145-100-PHO1A.JPG

035-018-000-150-100-PHO1A.JPG



035-018-000-150-100-PHO1B.JPG

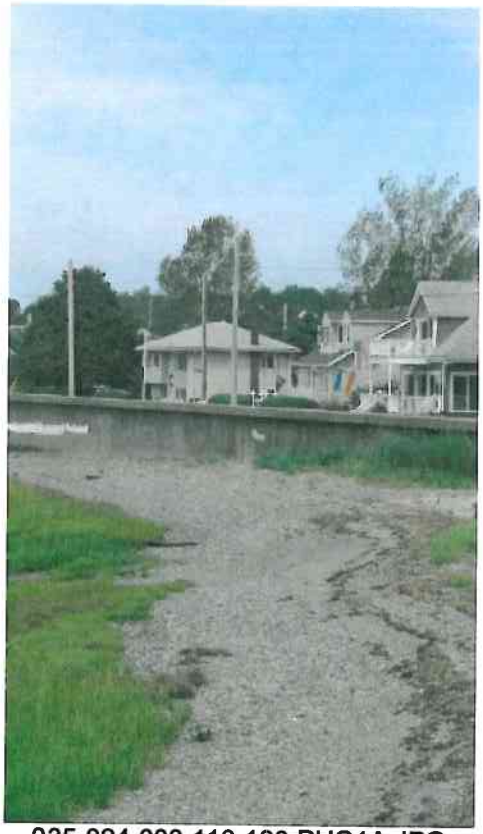
035-018-000-150-100-PHO1C.JPG

035-019-000-041-100-PHO1A.JPG

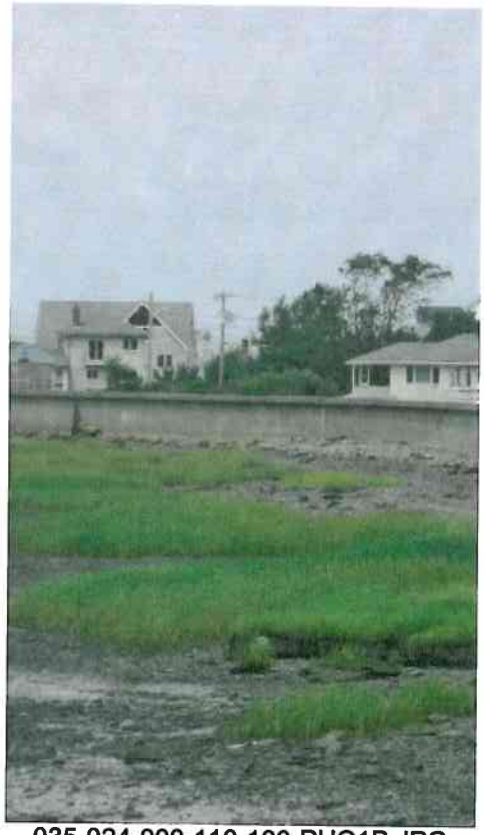
035-019-000-041-100-PHO1B.JPG

035-020-000-143-100-PHO1A.JPG

035-020-000-143-100-PHO1B.JPG



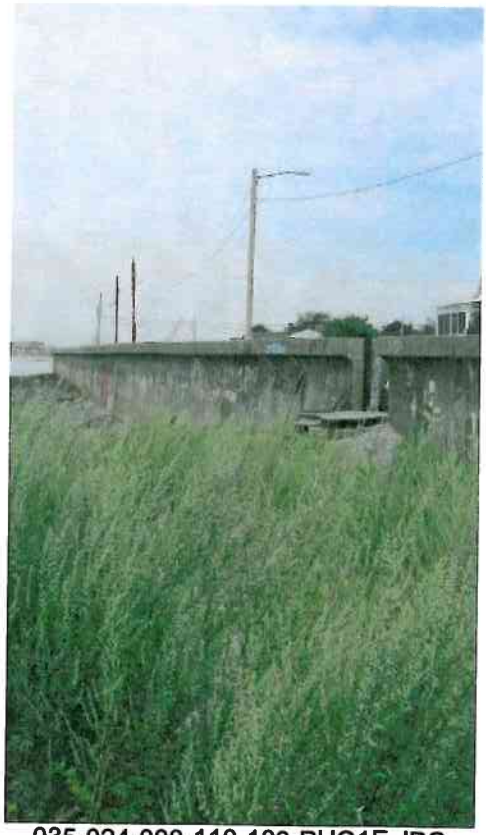
035-024-000-110-100-PHO1A.JPG



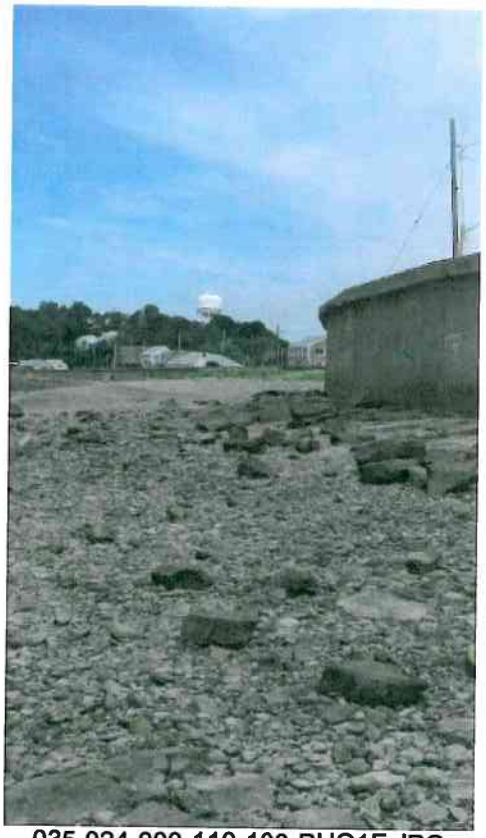
035-024-000-110-100-PHO1B.JPG

035-024-000-110-100-PHO1C.JPG

035-024-000-110-100-PHO1D.JPG



035-024-000-110-100-PHO1E.JPG



035-024-000-110-100-PHO1F.JPG

035-027-000-054-100-PHO1A.JPG

035-027-000-054-100-PHO1B.JPG

035-027-000-054-200-PHO2A.JPG

035-027-000-054-300-PHO3A.JPG

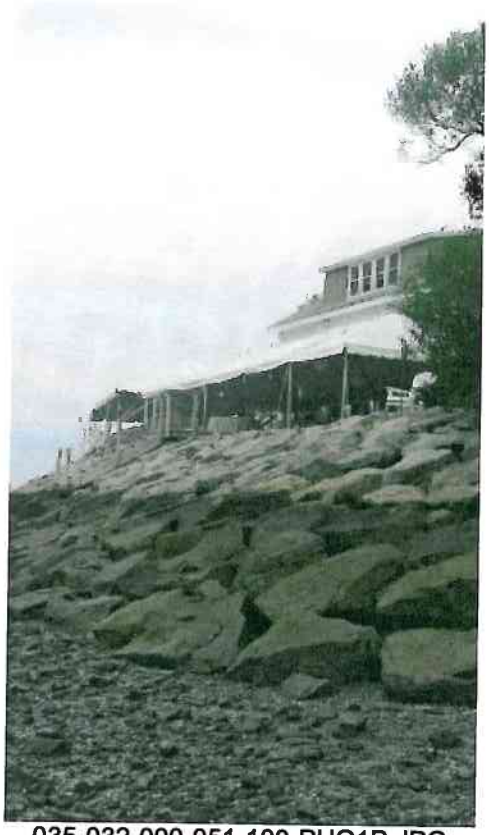
035-027-000-054-300-PHO3B.JPG

035-030-000-073-100-PHO1A.JPG

035-030-000-073-100-PHO1B.JPG

035-030-000-073-100-PHO1C.JPG

035-032-000-051-100-PHO1A.JPG

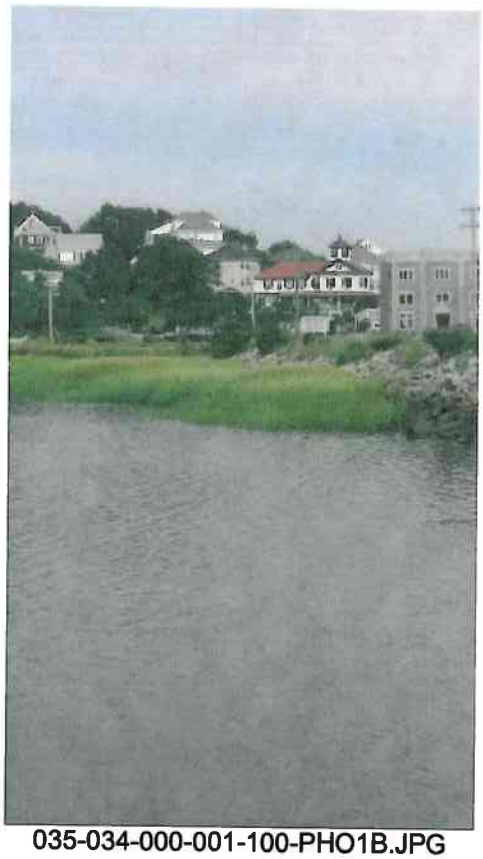


035-032-000-051-100-PHO1B.JPG

035-032-000-051-100-PHO1C.JPG

035-033-000-010-100-PHO1A.JPG

035-034-000-001-100-PHO1A.JPG

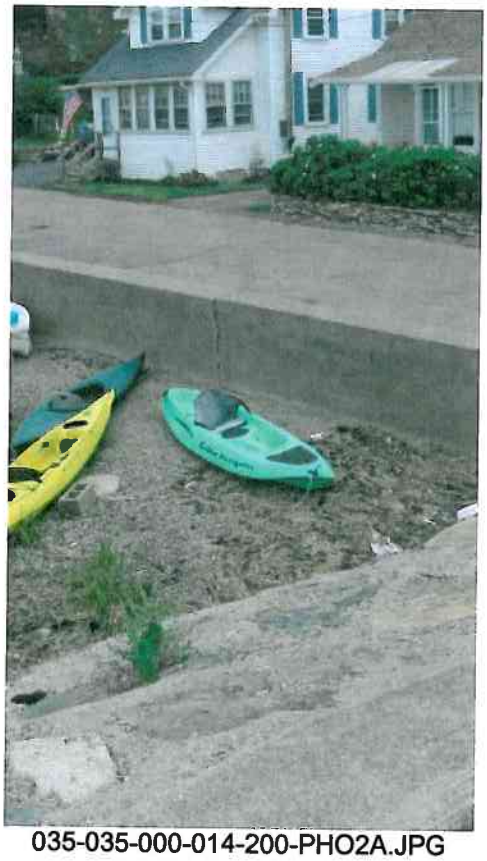


035-034-000-001-100-PHO1B.JPG

035-034-000-001-100-PHO1C.JPG

035-035-000-014-100-PHO1A.JPG

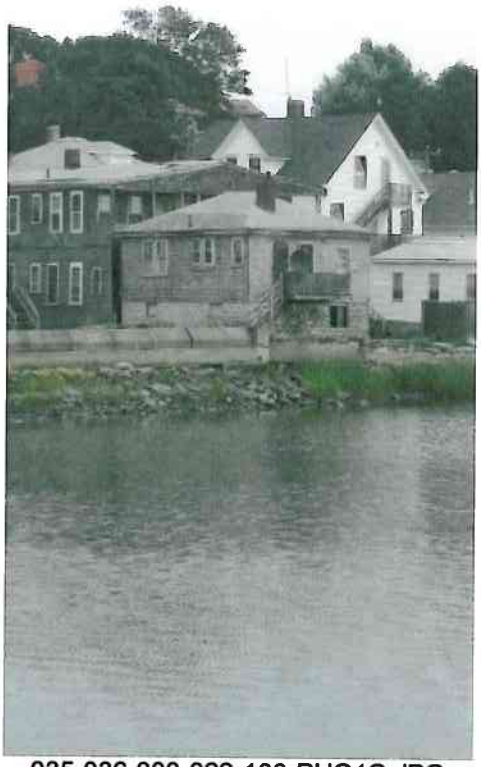
035-035-000-014-100-PHO1B.JPG



035-035-000-014-200-PHO2A.JPG

035-036-000-022-100-PHO1A.JPG

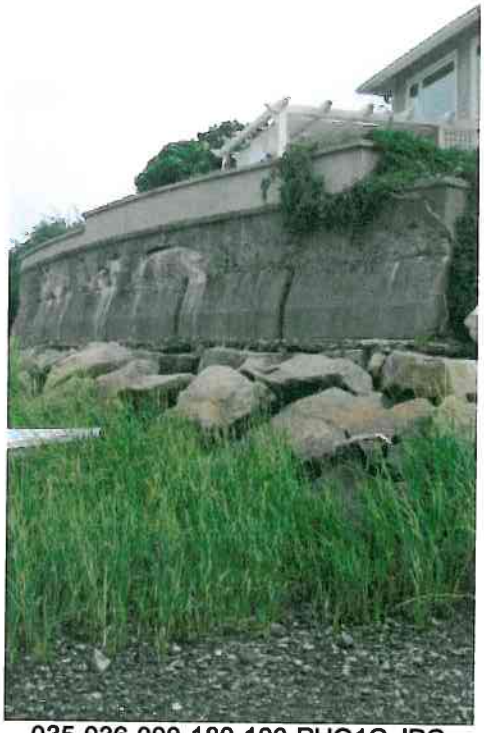
035-036-000-022-100-PHO1B.JPG



035-036-000-022-100-PHO1C.JPG

035-036-000-180-100-PHO1A.JPG

035-036-000-180-100-PHO1B.JPG

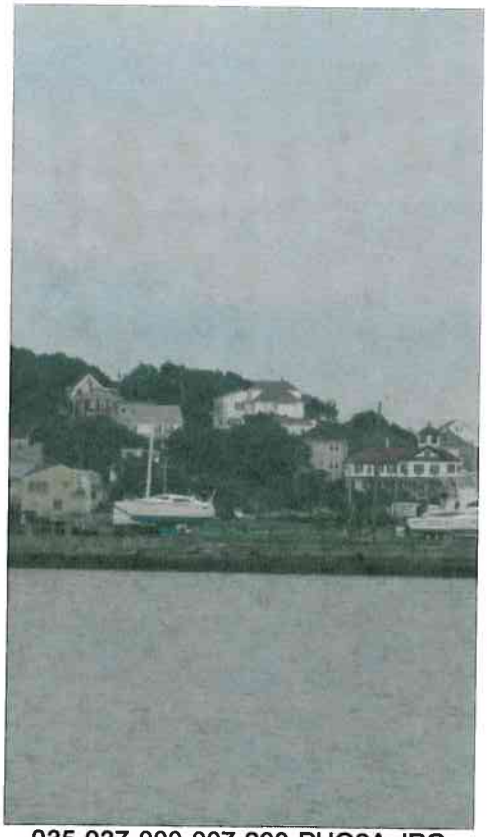


035-036-000-180-100-PHO1C.JPG

035-037-000-006A-100-PHO1A.JPG

035-037-000-006A-100-PHO1B.JPG

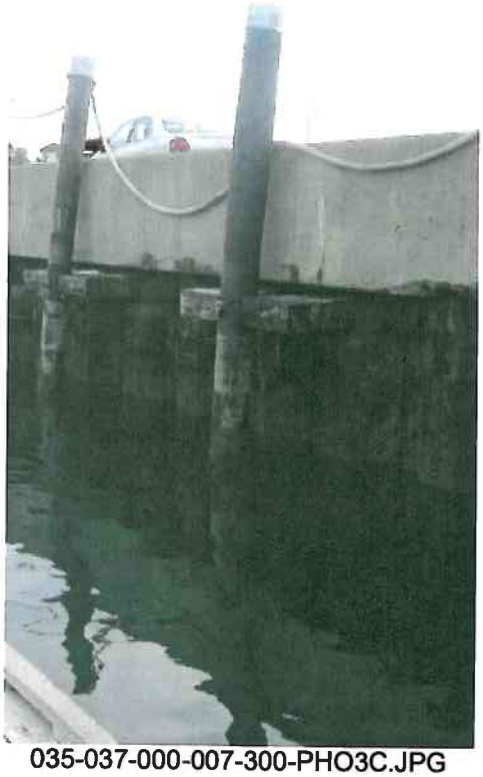
035-037-000-007-100-PHO1A.JPG



035-037-000-007-200-PHO2A.JPG

035-037-000-007-300-PHO3A.JPG

035-037-000-007-300-PHO3B.JPG



035-037-000-007-300-PHO3C.JPG

035-037-000-007-400-PHO4A.JPG

035-037-000-007-400-PHO4B.JPG

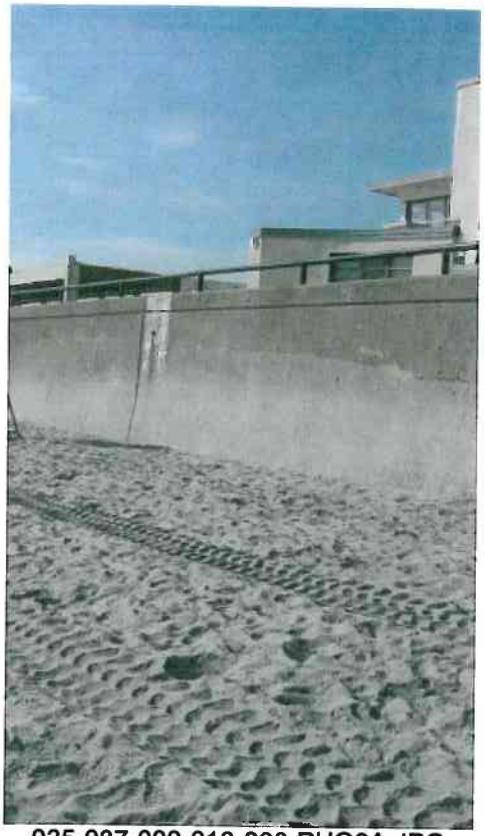
035-037-000-007-400-PHO4C.JPG

035-037-000-010-100-PHO1A.JPG

035-037-000-010-100-PHO1B.JPG

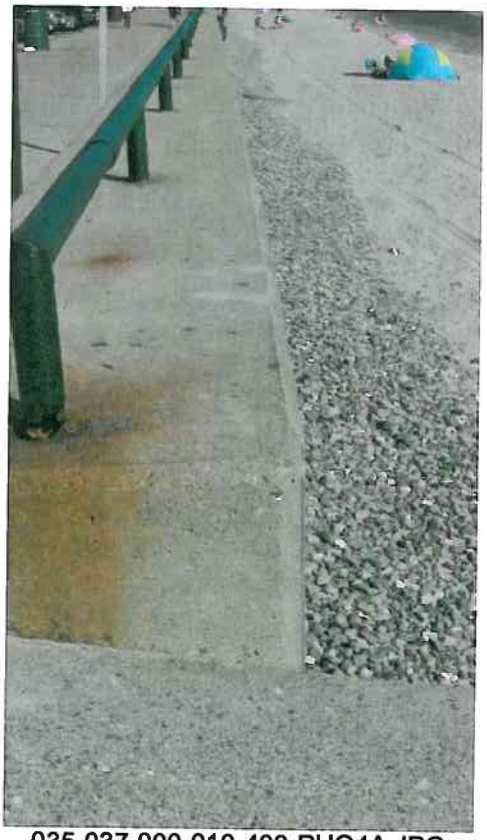
035-037-000-010-200-PHO2A.JPG

035-037-000-010-200-PHO2B.JPG



035-037-000-010-300-PHO3A.JPG

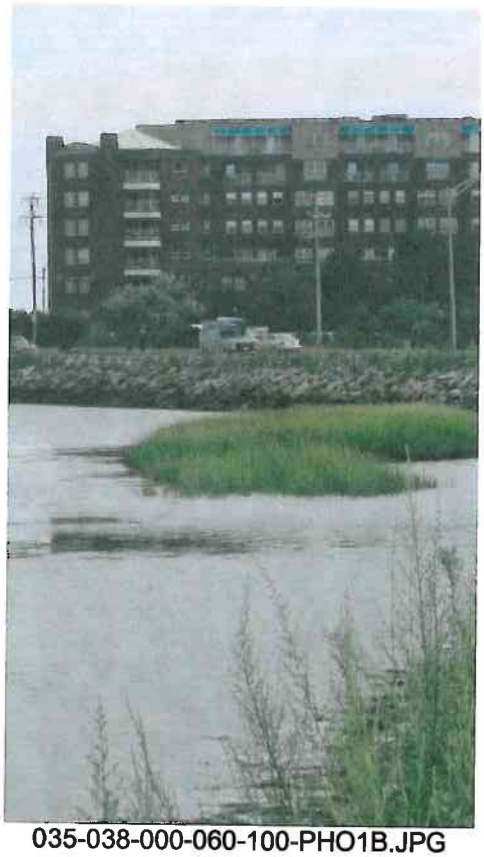
035-037-000-010-300-PHO3B.JPG



035-037-000-010-400-PHO4A.JPG

035-037-000-010-400-PHO4B.JPG

035-038-000-060-100-PHO1A.JPG

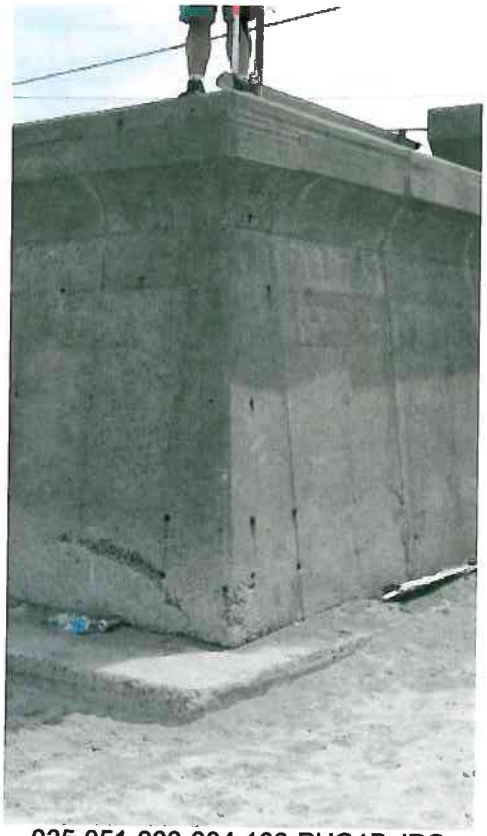


035-038-000-060-100-PHO1B.JPG

035-038-000-060-100-PHO1C.JPG

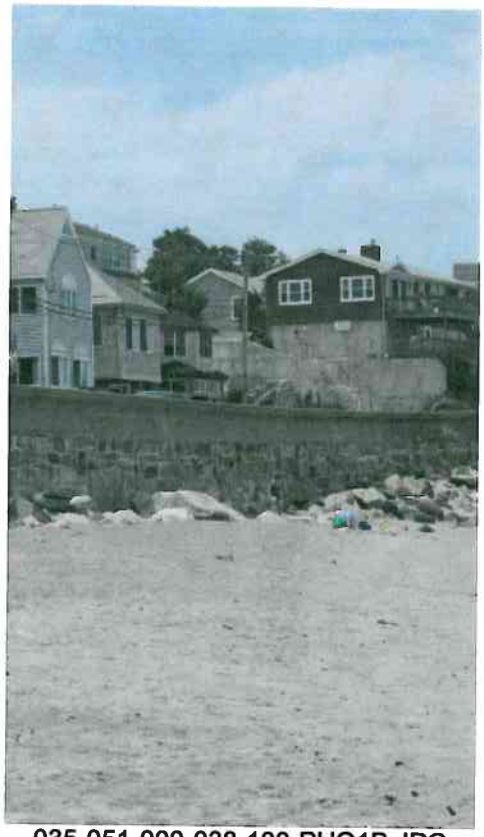
035-038-000-060-100-PHO1D.JPG

035-051-000-034-100-PHO1A.JPG

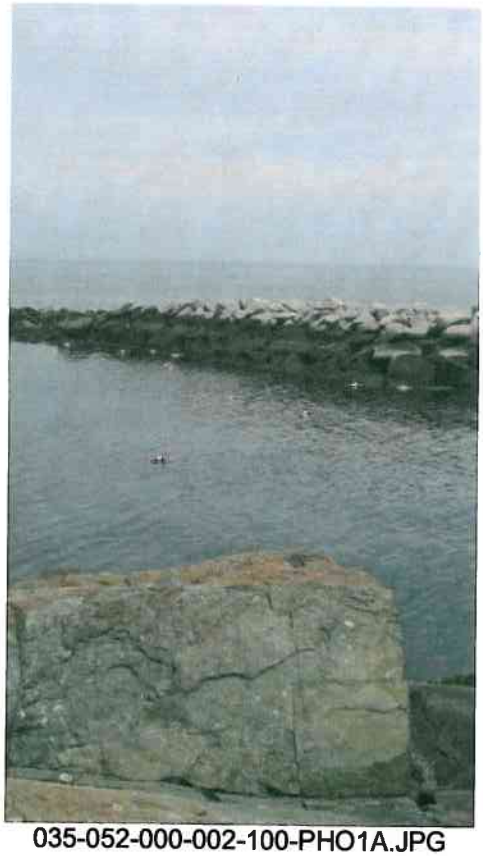


035-051-000-034-100-PHO1B.JPG

035-051-000-038-100-PHO1A.JPG

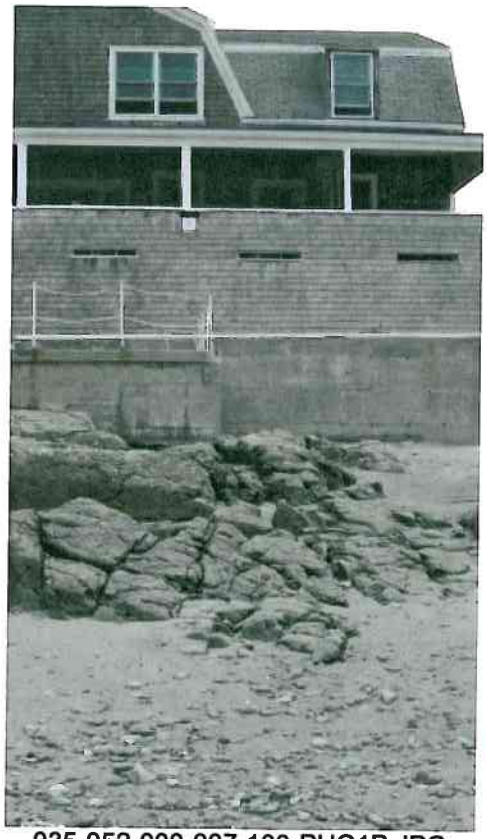


035-051-000-038-100-PHO1B.JPG



035-052-000-002-100-PHO1A.JPG

035-052-000-007-100-PHO1A.JPG



035-052-000-007-100-PHO1B.JPG

035-052-000-008-100-PHO1A.JPG

035-052-000-014-100-PHO1A.JPG

035-052-000-014-100-PHO1B.JPG

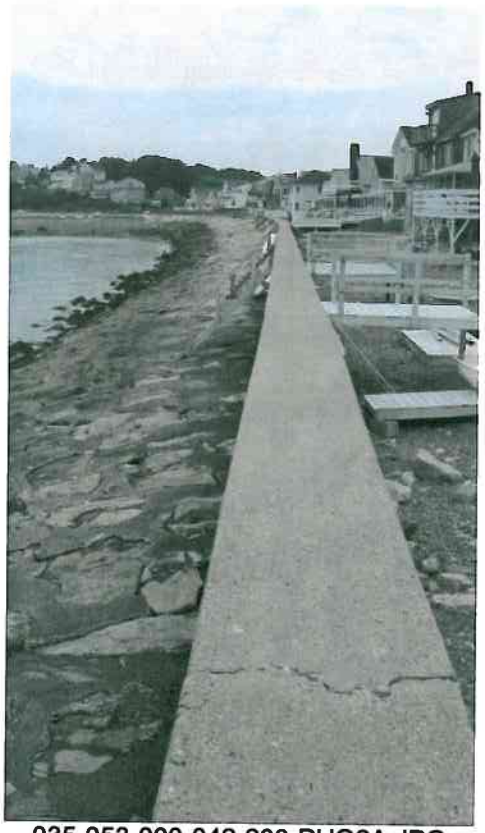
035-052-000-069-100-PHO1A.JPG

035-052-000-069-100-PHO1B.JPG

035-052-000-069-100-PHO1C.JPG

035-052-000-075-100-PHO1A.JPG

035-053-000-042-100-PHO1A.JPG



035-053-000-042-200-PHO2A.JPG

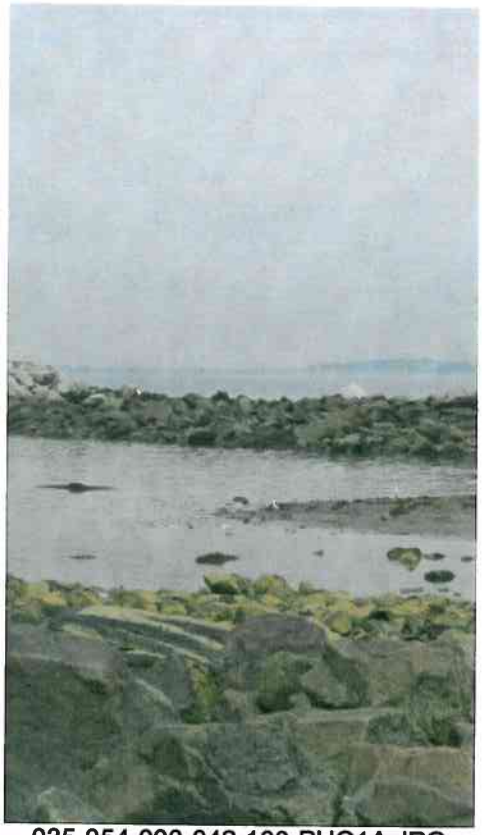
035-053-000-042-200-PHO2B.JPG

035-054-000-020-100-PHO1A.JPG

035-054-000-020-100-PHO1B.JPG

035-054-000-022-100-PHO1A.JPG

035-054-000-028-100-PHO1A.JPG



035-054-000-042-100-PHO1A.JPG

035-054-000-042-100-PHO1B.JPG

035-056-000-030-100-PHO1A.JPG

035-057-000-009-100-PHO1A.JPG

035-057-000-009-100-PHO1B.JPG

035-057-000-009-200-PHO2A.JPG

Section V

Town of Hull

Structure Documents

TOWN DOCUMENT LIST

MA DCR - DOCUMENT LIST

MA DEP – Chp 91 DOCUMENT LIST

- Copies of License Documents

USACE – PERMIT DOCUMENT LIST

- Copies of Permit Documents

TOWN: HULL
SOURCE: TOWN OF HULL
LOCATION: HULL MA
DATE OF RESEARCH: AUGUST 2006

BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
035-024-000-110-100	035-024-000-110-100-TWN1A	2302	MA DPW	HULL	MAR 1961	PROPOSED SEA DEFENSES, KENBERMA SECTION	18	NEWPORT ROAD FROM PROSPECT AVE TO NANTASKET AVE	
035-001-000-001-100	035-001-000-001-100-TWN1A	DSR 5-14-1	TOWN OF HULL	HULL	JUNE 15, 1979	MAIN STREET STONE MASONRY WALL AT PEMBERTON PIER, PLAN AND SECTIONS	1	MAIN STREET BETWEEN TOWN PIER AND MILDRED STREET	
035-001-000-036-100	035-001-000-036-100-TWN1A	87	MA DPW	HULL	AUG 1926	PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	CONCRETE SEAWALL
035-001-000-036-100	035-001-000-036-100-TWN1B	486	MA DPW	HULL	MAR 1937	PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-100	035-001-000-036-100-TWN1C	557	MA DPW	HULL	NOV 1938	RIP RAP PROTECTION AND JETTIES, PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-100	035-001-000-036-100-TWN1D	1597	MA DPW	HULL	MAR 1956	PROPOSED SHORE PROTECTION, SEAWALL RECONSTRUCTION & STONE REVETMENT, PEMBERTON	3	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-100	035-001-000-036-100-TWN1E	1986	MA DPW	HULL	NOV 1958	PROPOSED SHORE PROTECTION, SEA WALL RECONSTRUCTION, PEMBERTON	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-100	035-001-000-036-100-TWN1F	2126	MA DPW	HULL	UNREADABLE	CONCRETE SEAWALL RECONSTRUCTION, CHANNEL STREET	2	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-100	035-001-000-036-100-TWN1G	DSR 5-10-1	TOWN OF HULL	HULL	JUNE 15, 1979	CHANNEL STREET SEA WALL, PLAN AND SECTIONS	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-200	035-001-000-036-200-TWN2A	87	MA DPW	HULL	AUG 1926	PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	CONCRETE SEAWALL
035-001-000-036-200	035-001-000-036-200-TWN2B	486	MA DPW	HULL	MAR 1937	PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-200	035-001-000-036-200-TWN2C	557	MA DPW	HULL	NOV 1938	RIP RAP PROTECTION AND JETTIES, PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-200	035-001-000-036-200-TWN2D	1597	MA DPW	HULL	MAR 1956	PROPOSED SHORE PROTECTION, SEAWALL RECONSTRUCTION & STONE REVETMENT, PEMBERTON	3	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-200	035-001-000-036-200-TWN2E	1986	MA DPW	HULL	NOv 1958	PROPOSED SHORE PROTECTION, SEA WALL RECONSTRUCTION, PEMBERTON	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-200	035-001-000-036-200-TWN2F	2126	MA DPW	HULL	UNREADABLE	CONCRETE SEAWALL RECONSTRUCTION, CHANNEL STREET	2	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-200	035-001-000-036-200-TWN2G	DSR 5-10-1	TOWN OF HULL	HULL	JUNE 15, 1979	CHANNEL STREET SEA WALL, PLAN AND SECTIONS	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-002-000-002-100	035-002-000-002-100-TWN1A	1703	MA DPW	HULL	DEC 1956	PROPOSED SHORE PROTECTION AT THREE LOCATIONS, VICINITY OF MAIN STREET, PEMBERTON	1	MAIN STREET BETWEEN TOWN WAY AND OCEAN AVE	
035-002-000-007-100	035-002-000-007-100-TWN1A	1703	MA DPW	HULL	DEC 1956	PROPOSED SHORE PROTECTION AT THREE LOCATIONS, VICINITY OF MAIN STREET, PEMBERTON	1	MAIN STREET BETWEEN TOWN WAY AND OCEAN AVE	
035-002-000-021-100	035-002-000-021-100-TWN1A	486	MA DPW	HULL	MAR 1937	PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-002-000-021-100	035-002-000-021-100-TWN1B	557	MA DPW	HULL	NOV 1938	RIP RAP PROTECTION AND JETTIES, PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-002-000-023-100	035-002-000-023-100-TWN1A	DSR 5-17-1 et. al.	TOWN OF HULL	HULL	AUG 31, 1979	CHANNEL STREET REVETMENT, PLAN AND SECTIONS/PROFILE	2	CHANNEL STREET, POINT PEMBERTON	
035-002-000-023-100	035-002-000-023-100-TWN1B	1597	MA DPW	HULL	MAR 1956	PROPOSED SHORE PROTECTION, SEAWALL RECONSTRUCTION & STONE REVETMENT, PEMBERTON	3	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-005-000-086-100	035-005-000-086-100-TWN1A	DSR 5-16-1 et. al.	TOWN OF HULL	HULL	NOV 30, 1979	HIGHLAND AVE. BLUFF REVETMENT, PLAN AND SECTIONS	2	HIGHLAND AVE BETWEEN MAIN STREET AND MT PLEASANT ST	
035-005-000-096-100	035-005-000-096-100-TWN1A	1516	MA DPW	HULL	JUNE 1955	PROPOSED HURRICANE REPAIRS AT FIVE LOCATIONS IN HINGHAM BAY, HULL	2	JAMES AVE. @ TOWN PIER, WESTERLY OF JAMES AVE, HOOPERS LANDING	
035-006-000-042-100	035-006-000-042-100-TWN1A	1516	MA DPW	HULL	JUNE 1955	PROPOSED HURRICANE REPAIRS AT FIVE LOCATIONS IN HINGHAM BAY, HULL	2	JAMES AVE. @ TOWN PIER, WESTERLY OF JAMES AVE, HOOPERS LANDING	
035-006-000-042-100	035-006-000-042-100-TWN1B	1828	MA DPW	HULL	OCT 1957	PROPOSED SEA WALL RECONSTRUCTION SPRING STREET	1	SPRING STREET WEST OF SPINNAKER ISLAND	
035-007-000-008-100	035-007-000-008-100-TWN1A	S-1A et. al.	TOWN OF HULL	HULL	OCT 3 1989	SPRING STREET SEAWALL, SITE PLAN/ TYPICAL SECTION & DETAILS	2	SPRING STREET FROM DOUGLAS AVE TO NANTASKET AVE	
035-007-000-008-100	035-007-000-008-100-TWN1B	S-1A et. al.	TOWN OF HULL	HULL	OCT 3 1989	SPRING STREET SEAWALL, SITE PLAN/ TYPICAL SECTION & DETAILS	2	SPRING STREET FROM DOUGLAS AVE TO NANTASKET AVE	
035-007-000-008-100	035-007-000-008-100-TWN1A	S-1A et. al.	TOWN OF HULL	HULL	OCT 3 1989	SPRING STREET SEAWALL, SITE PLAN/ TYPICAL SECTION & DETAILS	2	EAST END OF SPRING STREET	
035-007-000-052-100	035-007-000-052-100-TWN1A	299	MA DPW	HULL	OCT 1931	PROPOSED REPAIRS TO SEA WALLS AT STONY BEACH AND PEMBERTON PT	1	NANTASKET AVE @ FITZPATRICK WAY & NANTASKET AVE @ SPRING STREET	
035-007-000-052-100	035-007-000-052-100-TWN1B	389	MA DPW	HULL	JAN 1934	PROPOSED SHORE PROTECTION, STONY BEACH	1	NANTASKET AVE @ SPRING STREET	
035-007-000-052-100	035-007-000-052-100-TWN1C	UNKNOWN	UNKNOWN	HULL	UNKNOWN	CROSS SECTION OF RIP RAP DIKE	1	NANTASKET AVE @ SPRING STREET	
035-007-000-052-100	035-007-000-052-100-TWN1D	DSR 5-9/15-1 et. al.	TOWN OF HULL	HULL	AUG 31, 1979	NANTASKET AVE REVETMENT, PLAN & SECTIONS/ SECTIONS/ PROFILE/ PROFILE	4	NANTASKET AVE, BETWEEN PEMBERTON PT & PT ALLERTON	
035-007-000-052-100	035-007-000-052-100-TWN1E	S-2	TOWN OF HULL	HULL	OCT 4, 1989	SITE PLAN & TYPICAL SECTIONS, NANTASKET AVE REVETMENT	1	NANTASKET AVE @ SPRING STREET	
035-007-000-052-100	035-007-000-052-100-TWN1F	S-4	TOWN OF HULL	HULL	UNREADABLE	SITE PLAN AND TYPICAL SECTIONS, STONY BEACH ROAD AREA #5, NANTASKET AVE & FITZPATRICK AVE AREA#4	1	NANTASKET AVE @ FITZPATRICK WAY & NANTASKET AVE @ SPRING STREET	
035-008-000-017-100	035-008-000-017-100-TWN1A	DSR 5-9/15-1 et. al.	TOWN OF HULL	HULL	AUG 31, 1979	NANTASKET AVE REVETMENT, PLAN & SECTIONS/ SECTIONS/ PROFILE/ PROFILE	4	NANTASKET AVE, BETWEEN PEMBERTON PT & PT ALLERTON	
035-008-000-017-100	035-008-000-017-100-TWN1B	EXHIBIT B/C	UNKNOWN	HULL	APRIL 12, 1990	EXISTING CONDITIONS PLAN & REPAIRED AREA ELEVATION	1	NANTASKET AVE @ FITZPATRICK WAY	
035-008-000-017-100	035-008-000-017-100-TWN1C	EXHIBIT D	UNKNOWN	HULL	APRIL 12, 1990	SECTION A-A EXISTING CONDITIONS, SECTION B-B REPAIRED AREA	1	NANTASKET AVE @ FITZPATRICK WAY	
035-008-000-021-100	035-008-000-021-100-TWN1A	1516	MA DPW	HULL	JUNE 1955	PROPOSED HURRICANE REPAIRS AT FIVE LOCATIONS IN HINGHAM BAY, HULL	2	JAMES AVE. @ TOWN PIER, WESTERLY OF JAMES AVE, HOOPERS LANDING	
035-008-000-022-100	035-008-000-022-100-TWN1B	1516	MA DPW	HULL	JUNE 1955	PROPOSED HURRICANE REPAIRS AT FIVE LOCATIONS IN HINGHAM BAY, HULL	2	JAMES AVE. @ TOWN PIER, WESTERLY OF JAMES AVE, HOOPERS LANDING	
035-009-000-033-100	035-009-000-033-100-TWN1A	299	MA DPW	HULL	OCT 1931	PROPOSED REPAIRS TO SEA WALLS AT STONY BEACH AND PEMBERTON PT	1	NANTASKET AVE @ FITZPATRICK WAY & NANTASKET AVE @ SPRING STREET	

TOWN: HULL
SOURCE: TOWN OF HULL
LOCATION: HULL MA
DATE OF RESEARCH: AUGUST 2006

035-009-000-033-100	035-009-000-033-100-TWN1B	EXHIBIT D	UNKNOWN	HULL	APRIL 12, 1990	SECTION A-A EXISTING CONDITIONS, SECTION B-B REPAIRED AREA	1	NANTASKET AVE @ FITZPATRICK WAY	
035-009-000-033-200	035-009-000-033-200-TWN2A	299	MA DPW	HULL	OCT 1931	PROPOSED REPAIRS TO SEA WALLS AT STONY BEACH AND PEMBERTON PT	1	NANTASKET AVE @ FITZPATRICK WAY & NANTASKET AVE @ SPRING STREET	
035-009-000-033-200	035-009-000-033-200-TWN2B	1657	MA DPW	HULL	APRIL 1957	PROPOSED SHORE PROTECTION, SEA WALL RECONSTRUCTION, NANTASKET AVENUE, BETWEEN PEMBERTON POINT & POINT ALLERTON	1	NANTASKET AVE, BETWEEN PEMBERTON PT & PT ALLERTON	
035-009-000-033-200	035-009-000-033-200-TWN2C	2104	MA DPW	HULL	MAR 1960	PROPOSED SHORE PROTECTION, SEA WALL CONSTRUCTION AT STONY BEACH, NANTASKET AVENUE BETWEEN PEMBERTON AND POINT ALLERTON	1	NANTASKET AVE, BETWEEN PEMBERTON PT & PT ALLERTON	
035-009-000-033-200	035-009-000-033-200-TWN2D	DSR 5-9/15-1 et. al.	TOWN OF HULL	HULL	AUGUST 31, 1979	NANTASKET AVE REVETMENT, PLAN & SECTIONS/ SECTIONS/ PROFILE/ PROFILE	4	NANTASKET AVE, BETWEEN PEMBERTON PT & PT ALLERTON	
035-009-000-033-200	035-009-000-033-200-TWN2E	EXHIBIT D	UNKNOWN	HULL	APRIL 12, 1990	SECTION A-A EXISTING CONDITIONS, SECTION B-B REPAIRED AREA	1	NANTASKET AVE @ FITZPATRICK WAY	
035-009-000-033-200	035-009-000-033-200-TWN2F	S-4	TOWN OF HULL	HULL	UNREADABLE	SITE PLAN AND TYPICAL SECTIONS, STONY BEACH ROAD AREA #5, NANTASKET AVE & FITZPATRICK AVE AREA#4	1	NANTASKET AVE @ FITZPATRICK WAY & NANTASKET AVE @ SPRING STREET	
035-010-000-003-100	035-010-000-003-100-TWN1A	124	MA DPW	HULL	SEPT 7, 1926	POINT ALLERTON SHORE PROTECTION TAKING OF RIGHTS AND EASEMENTS IN LAND IN HULL	1	PT ALLERTON	
035-010-000-003-100	035-010-000-003-100-TWN1B	UNKNOWN	A.C.O.E.	HULL	JUNE 30, 1875	BOSTON HARBOR, MASS. SEA WALL AT POINT ALLERTON	1	PT ALLERTON	
035-010-000-003-200	035-010-000-003-200-TWN2A	124	MA DPW	HULL	SEPT 7, 1926	POINT ALLERTON SHORE PROTECTION TAKING OF RIGHTS AND EASEMENTS IN LAND IN HULL	1	PT ALLERTON	
035-010-000-003-200	035-010-000-003-200-TWN2B	UNKNOWN	A.C.O.E.	HULL	JUNE 30, 1875	BOSTON HARBOR, MASS. SEA WALL AT POINT ALLERTON	1	PT ALLERTON	
035-010-000-020-100	035-010-000-020-100-TWN1A	2481	MA DPW	HULL	OCT 1968	PROPOSED SHORE PROTECTION SEA WALL RECONSTRUCTION, POINT ALLERTON	1	IMMEDIATELY WEST OF PT ALLERTON	
035-010-000-020-100	035-010-000-020-100-TWN1B	UNKNOWN	MA DPW	HULL	SEPT 7, 1926	POINT ALLERTON SHORE PROTECTION TAKING OF RIGHTS AND EASEMENTS IN LAND IN HULL	2	IMMEDIATELY WEST OF PT ALLERTON	
035-010-000-020-200	035-010-000-020-200-TWN2A	2481	MA DPW	HULL	OCT 1968	PROPOSED SHORE PROTECTION SEA WALL RECONSTRUCTION, POINT ALLERTON	1	IMMEDIATELY WEST OF PT ALLERTON	
035-010-000-020-200	035-010-000-020-200-TWN2B	UNKNOWN	MA DPW	HULL	SEPT 7, 1926	POINT ALLERTON SHORE PROTECTION TAKING OF RIGHTS AND EASEMENTS IN LAND IN HULL	2	IMMEDIATELY WEST OF PT ALLERTON	
035-030-000-073-100	035-030-000-073-100-TWN1A	2302	MA DPW	HULL	MAR 1961	PROPOSED SEA DEFENSES, KENBERMA SECTION	18	NEWPORT ROAD FROM PROSPECT AVE TO NANTASKET AVE	
035-032-000-051-100	035-032-000-051-100-TWN1A	1965	MA DPW	HULL	AUG 1958	PROPOSED SHORE PROTECTION, STONE MOUND, SUNSET POINT	1	SUNSET POINT	
035-032-000-051-100	035-032-000-051-200-TWN1B	1965	MA DPW	HULL	AUG 1958	PROPOSED SHORE PROTECTION, STONE MOUND, SUNSET POINT	1	SUNSET POINT	
035-037-000-007-100	035-037-000-007-100-TWN1A	3084	MA DEM	HULL	APRIL 1985	PROPOSED REPAIRS AND MODIFICATIONS TO THE STEEL BULKHEAD, NANTASKET PIER	2	NANTASKET PIER	
035-037-000-007-100	035-037-000-007-100-TWN1B	3014	MA DEM	HULL	DEC 1, 1982	PROPOSED HARBOR IMPROVEMENTS, TIMBER PIER AND STEEL BULKHEAD, NANTASKET PIER	4	NANTASKET PIER (SHEET 4 MISSING)	
035-051-000-034-100	035-051-000-034-100-TWN1A	DSR 5-1-1	TOWN OF HULL	HULL	JUNE 15, 1979	STONY BEACH ROAD STONE MASONRY WALL PLAN AND SECTIONS	1	STONY BEACH ROAD	
035-051-000-034-100	035-051-000-034-100-TWN1B	EXHIBIT B	UNKNOWN	HULL	APRIL 12, 1990	EXISTING CONDITIONS PLAN	1	STONY BEACH ROAD	
035-051-000-034-100	035-051-000-034-100-TWN1C	EXHIBIT C	UNKNOWN	HULL	APRIL 12, 1990	REPAIR AREA DETAIL	1	STONY BEACH ROAD	
035-051-000-038-100	035-051-000-038-100-TWN1A	DSR 5-1-1	TOWN OF HULL	HULL	JUNE 15, 1979	STONY BEACH ROAD STONE MASONRY WALL PLAN AND SECTIONS	1	STONY BEACH ROAD	
035-051-000-038-100	035-051-000-038-100-TWN1B	EXHIBIT B	UNKNOWN	HULL	APRIL 12, 1990	EXISTING CONDITIONS PLAN	1	STONY BEACH ROAD	
035-051-000-038-100	035-051-000-038-100-TWN1C	EXHIBIT C	UNKNOWN	HULL	APRIL 12, 1990	REPAIR AREA DETAIL	1	STONY BEACH ROAD	
035-052-000-002-100	035-052-000-002-100-TWN1A	UNREADABLE	MA COMMISSION ON WATERWAYS AND PUBLIC LANDS	HULL	JUNE 1917	PROPOSED EXTENSION TO BREAKWATER, GUN ROCK POINT	1	OFFSHORE OF GUN ROCK POINT	
035-052-000-002-100	035-052-000-003-100-TWN1B	667	MA DPW	HULL	JUNE 1940	PROPOSED BREAKWATER REPAIR GUN ROCK POINT	1	OFFSHORE OF GUN ROCK POINT	
035-052-000-002-100	035-052-000-004-100-TWN1C	DSR 5-2-1 & DSR 5-2-2	TOWN OF HULL	HULL	NOV 15, 1979	GUN ROCK BREAKWATER PLAN AND PROFILE	2	OFFSHORE OF GUN ROCK POINT	
035-052-000-002-100	035-052-000-002-100-TWN1D	SA-1	TOWN OF HULL	HULL	OCT 4, 1989	SITE PLAN & TYPICAL SECTIONS, GUN ROCK BREAKWATER	1	OFFSHORE OF GUN ROCK POINT	
035-052-000-069-100	035-052-000-069-100-TWN1A	2329	MA DPW	HULL	SEPT 1961	PROPOSED SHORE PROTECTION STONE REVETMENT, GUN ROCK	1	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-052-000-069-100	035-052-000-069-100-TWN1B	2366	MA DPW	HULL	OCT 1962	PROPOSED STONE REVETMENT VICINITY OF GUN ROCK	1	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-052-000-069-100	035-052-000-069-100-TWN1C	2516	MA DPW	HULL	MAY 1966	PROPOSED SHORE PROTECTION CONCRETE SEA WALL, STONE REVETMENT, GUN ROCK TO GREEN HILL	2	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-053-000-042-100	035-053-000-042-100-TWN1A	682	MA DPW	HULL	SEPT 1940	PROPOSED REPAIRS RIP RAP AND CONCRETE WALL GUN ROCK AND GREEN HILL	1	ATLANTIC AVE. NW OF COHASSET TOWN LINE	
035-053-000-042-100	035-053-000-042-100-TWN1B	340	MA DPW	HULL	OCT 1932	PROPOSED CONCRETE JETTIES AND REPAIRS TO SEA WALL	1	ADJACENT OCEAN SIDE ATLANTIC AVE	
035-053-000-042-100	035-053-000-042-100-TWN1C	1232	MA DPW	HULL	UNREADABLE	PROPOSED SEA WALL REPAIRS BETWEEN GUN ROCK AND GREEN HILL	1	ADJACENT OCEAN SIDE ATLANTIC AVE	
035-053-000-042-100	035-053-000-042-100-TWN1D	594	MA DPW	HULL	JUNE 1939	PROPOSED REPAIRS TO CONCRETE SEA WALL GUN ROCK TO GREEN HILL	1	ADJACENT OCEAN SIDE ATLANTIC AVE	
035-053-000-042-100	035-053-000-042-100-TWN1E	732	MA DPW	HULL	NOV 1941	PROPOSED RIP RAP AND REPAIRS TO CONCRETE SEA WALL GUN ROCK TO GREEN HILL	1	ADJACENT OCEAN SIDE ATLANTIC AVE	
035-053-000-042-100	035-053-000-042-100-TWN1F	912	MA DPW	HULL	MAY 1946	PROPOSED REPAIRS TO SEA WALL BETWEEN GUN ROCK AND GREEN HILL	1	ADJACENT OCEAN SIDE ATLANTIC AVE	

TOWN: HULL
SOURCE: TOWN OF HULL
LOCATION: HULL MA
DATE OF RESEARCH: AUGUST 2006

035-053-000-042-100	035-053-000-042-100-TWN1G	1468	MA DPW	HULL	FEB 1955	PROPOSED SHORE PROTECTION SEA WALL REPAIRS & REVETMENT BETWEEN GREEN HILL & GUN ROCK	2	OCEAN SIDE ATLANTIC AVE AND SUMMIT AVE	
035-053-000-042-100	035-053-000-042-100-TWN1H	2053	MA DPW	HULL	SEPT 1959	PROPOSED SHORE PROTECTION, STONE REVETMENT, GROIN & SAND AT GUN ROCK EASTERLY TOWARDS GREEN HILL MASSACHUSETTS BAY	1	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-053-000-042-100	035-053-000-042-100-TWN1I	2329	MA DPW	HULL	SEPT 1961	PROPOSED SHORE PROTECTION STONE REVETMENT, GUN ROCK	1	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-053-000-042-100	035-053-000-042-100-TWN1J	2366	MA DPW	HULL	OCT 1962	PROPOSED STONE REVETMENT VICINITY OF GUN ROCK	1	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-053-000-042-100	035-053-000-042-100-TWN1K	2518	MA DPW	HULL	MAY 1966	PROPOSED SHORE PROTECTION CONCRETE SEA WALL, STONE REVETMENT, GUN ROCK TO GREEN HILL	2	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-053-000-042-100	035-053-000-042-100-TWN1L	DSR 5-3/13-2 et. al.	TOWN OF HULL	HULL	JUNE 15, 1979	CRESCENT BEACH SEA WALL, SECTIONS	3	ADJACENT OCEAN SIDE ATLANTIC AVE	
035-053-000-042-100	035-053-000-042-100-TWN1M	S-3	TOWN OF HULL	HULL	OCT 3, 1989	SITE PLAN AND TYPICAL SECTIONS, CRESCENT BEACH SEAWALL	1	ADJACENT OCEAN SIDE ATLANTIC AVE	
035-054-000-022-100	035-054-000-022-100-TWN1A	1858	MA DPW	HULL	OCT 1957	PROPOSED SEAWALL CONSTRUCTION GREEN HILL	1	SUMMIT AVENUE	
035-054-000-028-100	035-054-000-028-100-TWN1A	861	MA DPW	HULL	NOV 1945	PROPOSED SEAWALL REPAIRS GREEN HILL	1	DRIFTWAY CONNECTING ATLANTIC AVE AND SUMMIT AVE	
035-054-000-028-100	035-054-000-028-100-TWN1B	1625	MA DPW	HULL	JUNE 1956	PROPOSED SEA WALL & REVETMENT BETWEEN GUN ROCK & GREEN HILL	1	ADJACENT OCEAN SIDE ATLANTIC AVE	
035-054-000-042-100	035-054-000-042-100-TWN1A	1888	MA DPW	HULL	APRIL 1958	PROPOSED STONE BREAKWATER, ATLANTIC AVE, GREEN HILL SECTION	2	OFFSHORE OF DRIFTWAY ADJACENT ATLANTIC AVE AND SUMMIT AVE	
035-054-000-042-100	035-054-000-042-100-TWN1B	2518	MA DPW	HULL	MAY 1966	PROPOSED SHORE PROTECTION, CONCRETE SEA WALL, STONE REVETMENT GUN ROCK TO GREEN HILL	2	OFFSHORE OF AND ADJACENT TO DRIFTWAY ADJACENT ATLANTIC AVE AND SUMMIT AVE	MISSING SHEET 1
035-054-000-042-100	035-054-000-042-100-TWN1C	1468	MA DPW	HULL	FEB 1955	PROPOSED SHORE PROTECTION SEA WALL REPAIRS & REVETMENT BETWEEN GREEN HILL & GUN ROCK	2	OCEAN SIDE ATLANTIC AVE AND SUMMIT AVE	
035-055-000-008-100	035-055-000-008-100-TWN1A	DSR 5-4-1	TOWN OF HULL	HULL	JUNE 15, 1979	SUMMIT AVE. BLUFF SEA WALL PLAN AND SECTIONS	1	ATLANTIC AVE AND SUMMIT AVE	

TOWN: HULL
SOURCE: MA-DCR - OFFICE OF WATERWAYS
LOCATION: MA-DCR - OFFICE OF WATERWAYS, HINGHAM, MA
DATE OF RESEARCH: AUGUST 2006

BCE Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
035-024-000-110-100	035-024-000-110-100-DCR1A	2302	MA DPW	HULL	MARCH 1961	PROPOSED SEA DEFENSES, KENBERMA SECTION	18	NEWPORT ROAD FROM PROSPECT AVE TO NANTASKET AVE	
035-001-000-036-100	035-001-000-036-100-DCR1A	87	Commission on Waterways and Public Lands	HULL	AUGUST 1926	PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	CONCRETE SEAWALL
035-001-000-036-100	035-001-000-036-100-DCR1B	486	MA DPW	HULL	MARCH 1937	PROPOSED REPAIRS AND RIP RAP PROTECTION PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	DRAWINGS LOCATED IN OLD BLUEPRINT DRAW
035-001-000-036-100	035-001-000-036-100-DCR1C	557	MA DPW	HULL	NOV 1938	RIP RAP PROTECTION AND JETTIES, PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	DRAWINGS LOCATED IN OLD BLUEPRINT DRAW
035-001-000-036-100	035-001-000-036-100-DCR1D	1597	MA DPW	HULL	MARCH 1956	PROPOSED SHORE PROTECTION, SEAWALL RECONSTRUCTION & STONE REVETMENT, PEMBERTON	3	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-100	035-001-000-036-100-DCR1E	1986	MA DPW	HULL	NOVEMBER 1958	PROPOSED SHORE PROTECTION, SEA WALL RECONSTRUCTION, PEMBERTON	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-001-000-036-100	035-001-000-036-100-DCR1F	2126	MA DPW	HULL	U/R	CONCRETE SEAWALL RECONSTRUCTION, CHANNEL STREET	2	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-002-000-002-100	035-002-000-002-100-DCR1A	1703	MA DPW	HULL	DECEMBER 1956	PROPOSED SHORE PROTECTION AT THREE LOCATIONS, VICINITY OF MAIN STREET, PEMBERTON	1	MAIN STREET BETWEEN TOWN WAY AND OCEAN AVE	
035-002-000-007-100	035-002-000-007-100-DCR1A	1703	MA DPW	HULL	DECEMBER 1956	PROPOSED SHORE PROTECTION AT THREE LOCATIONS, VICINITY OF MAIN STREET, PEMBERTON	1	MAIN STREET BETWEEN TOWN WAY AND OCEAN AVE	
035-002-000-021-100	035-002-000-021-100-DCR1A	486	MA DPW	HULL	MARCH 1937	PROPOSED REPAIRS AND RIP RAP PROTECTION PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	DRAWINGS LOCATED IN OLD BLUEPRINT DRAW
035-002-000-021-100	035-002-000-021-100-DCR1B	557	MA DPW	HULL	NOV 1938	RIP RAP PROTECTION AND JETTIES, PEMBERTON POINT SEAWALL	1	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	DRAWINGS LOCATED IN OLD BLUEPRINT DRAW
035-002-000-023-100	035-002-000-023-100-DCR1A	1597	MA DPW	HULL	MARCH 1956	PROPOSED SHORE PROTECTION, SEAWALL RECONSTRUCTION & STONE REVETMENT, PEMBERTON	3	ADJACENT HULL HIGH SCHOOL, PEMBERTON POINT	
035-005-000-096-100	035-005-000-096-100-DCR1A	1516	MA DPW	HULL	JUNE 1955	PROPOSED HURRICANE REPAIRS AT FIVE LOCATIONS IN HINGHAM BAY, HULL	2	JAMES AVE. @ TOWN PIER, WESTERLY OF JAMES AVE, HOOPERS LANDING	
035-005-000-100-100	035-005-000-100-100-DCR1A	1516	MA DPW	HULL	JUNE 1955	PROPOSED HURRICANE REPAIRS AT FIVE LOCATIONS IN HINGHAM BAY, HULL	2	JAMES AVE. @ TOWN PIER, WESTERLY OF JAMES AVE, HOOPERS LANDING	
035-006-000-042-100	035-006-000-042-100-DCR1A	1516	MA DPW	HULL	JUNE 1955	PROPOSED HURRICANE REPAIRS AT FIVE LOCATIONS IN HINGHAM BAY, HULL	2	JAMES AVE. @ TOWN PIER, WESTERLY OF JAMES AVE, HOOPERS LANDING	
035-006-000-042-100	035-006-000-042-100-DCR1B	1656	MA DPW	HULL	OCT 1956	PROP SHORE PROTECTION SEAWALL RECONSTRUCTION SPRING ST, HULL	2	SPRING STREET FROM DOUGLAS AVE TO NANTASKET AVE	
035-006-000-042-100	035-006-000-042-100-DCR1C	1628	MA DPW	HULL	OCT 1957	PROPOSED SEA WALL RECONSTRUCTION SPRING STREET	1	SPRING STREET WEST OF SPINNAKER ISLAND	
035-007-000-052-100	035-007-000-052-100-DCR1A	299	MA DPW	HULL	OCT 1931	PROPOSED REPAIRS TO SEA WALLS AT STONY BEACH AND PEMBERTON PT	1	NANTASKET AVE @ FITZPATRICK WAY & NANTASKET AVE @ SPRING STREET	DRAWINGS LOCATED IN OLD BLUEPRINT DRAW
035-007-000-052-100	035-007-000-052-100-DCR1B	388	MA DPW	HULL	JAN 34	PROPOSED SHORE PROTECTION, STONY BEACH	1	NANTASKET AVE @ SPRING STREET	
035-008-000-021-100	035-008-000-021-100-DCR1A	1516	MA DPW	HULL	JUNE 1955	PROPOSED HURRICANE REPAIRS AT FIVE LOCATIONS IN HINGHAM BAY, HULL	2	JAMES AVE. @ TOWN PIER, WESTERLY OF JAMES AVE, HOOPERS LANDING	
035-008-000-022-100	035-008-000-022-100-DCR1A	1516	MA DPW	HULL	JUNE 1955	PROPOSED HURRICANE REPAIRS AT FIVE LOCATIONS IN HINGHAM BAY, HULL	2	JAMES AVE. @ TOWN PIER, WESTERLY OF JAMES AVE, HOOPERS LANDING	
035-009-000-033-100	035-009-000-033-100-DCR1A	299	MA DPW	HULL	OCT 1931	PROPOSED REPAIRS TO SEA WALLS AT STONY BEACH AND PEMBERTON PT	1	NANTASKET AVE @ FITZPATRICK WAY & NANTASKET AVE @ SPRING STREET	DRAWINGS LOCATED IN OLD BLUEPRINT DRAW
035-009-000-033-100	035-009-000-033-100DCR1B	2104	MA DPW	HULL	MARCH 1960	PROPOSED SHORE PROTECTION, SEA WALL CONSTRUCTION AT STONY BEACH, NANTASKET AVENUE BETWEEN PEMBERTON AND POINT ALLERTON	1	NANTASKET AVE, BETWEEN PEMBERTON PT & PT ALLERTON	
035-009-000-033-100	035-009-000-033-100-DCR1C	1657	MA DPW	HULL	APRIL 1957	PROPOSED SHORE PROTECTION SEA WALL RECONSTRUCTION, NANTASKET AVE BETWEEN PEMBERTON AND PT. ALLERTON	1	NANTASKET AVE BETWEEN PT ALLERTON AVE AND FITZPATRICK WAY	
035-010-000-003-100	035-010-000-003-100-DCR1A	1703	MA DPW	HULL	DECEMBER 1956	PROPOSED SHORE PROTECTION AT THREE LOCATIONS, VICINITY OF MAIN STREET, PEMBERTON	1	MAIN STREET BETWEEN TOWN WAY AND OCEAN AVE	
035-010-000-003-100	035-010-000-003-100-DCR1B	124	Commission on Waterways and Public Lands	HULL	SEPT 7, 1926	POINT ALLERTON SHORE PROTECTION TAKING OF RIGHTS AND EASEMENTS IN LAND IN HULL	1	PT ALLERTON	
035-010-000-003-100	035-010-000-003-100-DCR1C	3282	MA DEM	HULL	FEB 1995	SEAWALL BOULEVARD, HULL, MA, STORM DAMAGE REPAIRS TO SEAWALL	14	SEAWALL BOULEVARD AND PT. ALLERTON, EAST OF BEACON	
035-010-000-003-100	035-010-000-003-100-DCR1D	3360	MA DEM	HULL	AUGUST 1998	REVETMENT IMPROVEMENTS, SEAWALL BOULEVARD	5	SEAWALL BOULEVARD AND PT. ALLERTON, EAST OF BEACON	
035-010-000-003-100	035-010-000-003-100-DCR1E	3404	MA DEM	HULL	SEPT 1999	SITE IMPROVEMENT PROJECT, SEAWALL BOULEVARD, HULL, MA	2	SEAWALL BOULEVARD AND PT. ALLERTON, EAST OF BEACON,	INCLUDES NEW STAIRS OFF HOLBROOK AVE
035-010-000-003-100	035-010-000-003-100-DCR1F	3414	MA DEM	HULL	MARCH 2000	REVETMENT IMPROVEMENT PROJECT, SEAWALL BOULEVARD	3	SEAWALL BOULEVARD AND PT. ALLERTON, EAST OF BEACON,	INCLUDES IMPROVEMENTS TO STAIRS NE 300 FEET, DOES NOT INCLUDE WORK IN FRONT OF HOUSES #71&75
035-010-000-020-100	035-010-000-020-100-DCR1A	2481	MA DPW	HULL	OCT 1968	PROPOSED SHORE PROTECTION SEA WALL RECONSTRUCTION, POINT ALLERTON	1	IMMEDIATELY WEST OF PT ALLERTON	
035-010-000-020-100	035-010-000-020-100-DCR1B	3382	MA DEM	HULL	JAN. 1999	PROPOSED SEAWALL IMPROVEMENTS,	2	PT ALLERTON AVE, IMMEDIATELY WEST OF BEACON STREET	
035-030-000-073-100	035-030-000-073-100-DCR1A	2302	MA DPW	HULL	MARCH 1961	PROPOSED SEA DEFENSES, KENBERMA SECTION	18	NEWPORT ROAD FROM PROSPECT AVE TO NANTASKET AVE	
035-032-000-051-100	035-032-000-051-100-DCR1A	1965	MA DPW	HULL	AUGUST 1958	PROPOSED SHORE PROTECTION, STONE MOUND, SUNSET POINT	1	SUNSET POINT	
035-052-000-002-100	035-052-000-002-100-DCR1A	2106	MA DPW	HULL	APRIL 190	PROPOSED SHORE PROTECTION, STONE BREAKWATER AND SEAWALL, GUN ROCK	8	GUN ROCK BREAKWATER	

TOWN: HULL
SOURCE: MA-DCR - OFFICE OF WATERWAYS
LOCATION: MA-DCR - OFFICE OF WATERWAYS, HINGHAM, MA
DATE OF RESEARCH: AUGUST 2006

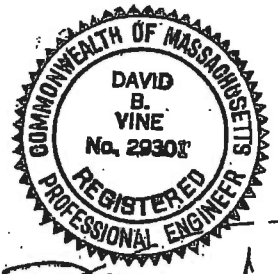
035-052-000-002-100	035-052-000-002-100-DCR1B	667	MA DPW	HULL	JUNE 1940	PROPOSED BREAKWATER REPAIR GUN ROCK POINT	1	OFFSHORE OF GUN ROCK POINT	
035-052-000-002-100	035-052-000-004-100-DCR1C	179	Commission on Waterways and Public Lands	HULL	AUG 1928	PROPOSED REPAIRS TO BREAKWATER	1	GUN ROCK PT	
035-052-000-002-100	035-052-000-004-100-DCR1D	17	Commission on Waterways and Public Lands	HULL	JUNE 1917	BREAKWATER EXTENSION	1	GUN ROCK PT	
035-052-000-002-100	035-052-000-004-100-DCR1E	76	Commission on Waterways and Public Lands	HULL	JUNE 1923	PROPOSED REPAIRS TO BREAKWATER	1	GUN ROCK PT	DRAWINGS LOCATED IN OLD BLUEPRINT DRAW
035-052-000-069-100	035-052-000-069-100-DCR1A	2329	MA DPW	HULL	SEPT 1961	PROPOSED SHORE PROTECTION STONE REVETMENT, GUN ROCK	1	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-052-000-069-100	035-052-000-069-100-DCR1A	2368	MA DPW	HULL	OCT 1962	PROPOSED STONE REVETMENT VICINITY OF GUN ROCK	1	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-052-000-069-100	035-052-000-069-100-DCR1A	2516	MA DPW	HULL	MAY 1966	PROPOSED SHORE PROTECTION CONCRETE SEA WALL, STONE REVETMENT, GUN ROCK TO GREEN HILL	2	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-053-000-042-100	035-053-000-042-100-DCR1A	594	MA DPW	HULL	JUNE 1939	PROPOSED REPAIRS TO CONCRETE SEA WALL GUN ROCK TO GREEN HILL	1	ADJACENT OCEAN SIDE ATLANTIC AVE	
035-053-000-042-100	035-053-000-042-100-DCR1B	682	MA DPW	HULL	SEPT 1940	PROPOSED REPAIRS RIP RAP AND CONCRETE WALL GUN ROCK AND GREEN HILL	1	ATLANTIC AVE. NW OF COHASSET TOWN LINE	
035-053-000-042-100	035-053-000-042-100-DCR1C	732	MA DPW	HULL	NOV 1941	PROPOSED RIP RAP AND REPAIRS TO CONCRETE SEA WALL GUN ROCK TO GREEN HILL	1	ADJACENT OCEAN SIDE ATLANTIC AVE	
035-053-000-042-100	035-053-000-042-100-DCR1D	912	MA DPW	HULL	MAY 1946	PROPOSED REPAIRS TO SEA WALL BETWEEN GUN ROCK AND GREEN HILL	1	ADJACENT OCEAN SIDE ATLANTIC AVE	
035-053-000-042-100	035-053-000-042-100-DCR1E	1468	MA DPW	HULL	FEB 1955	PROPOSED SHORE PROTECTION SEA WALL REPAIRS & REVETMENT BETWEEN GREEN HILL & GUN ROCK	2	OCEAN SIDE ATLANTIC AVE AND SUMMIT AVE	
035-053-000-042-100	035-053-000-042-100-DCR1F	2053	MA DPW	HULL	SEPT 1959	PROPOSED SHORE PROTECTION, STONE REVETMENT, GROIN & SAND AT GUN ROCK EASTERLY TOWARDS GREEN HILL MASSACHUSETTS BAY	1	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-053-000-042-100	035-053-000-042-100-DCR1G	215	Commission on Waterways and Public Lands	HULL	OCT 1929	GUN ROCK TO GREEN HILL	1	ATLANTIC AVENUE NORTH AND SOUTH OF BATH AVENUE	
035-053-000-042-100	035-053-000-042-100-DCR1H	2329	MA DPW	HULL	SEPT 1961	PROPOSED SHORE PROTECTION STONE REVETMENT, GUN ROCK	1	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-053-000-042-100	035-053-000-042-100-DCR1I	2366	MA DPW	HULL	OCT 1962	PROPOSED STONE REVETMENT VICINITY OF GUN ROCK	1	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-053-000-042-100	035-053-000-042-100-DCR1J	2516	MA DPW	HULL	MAY 1966	PROPOSED SHORE PROTECTION CONCRETE SEA WALL, STONE REVETMENT, GUN ROCK TO GREEN HILL	2	OCEAN SIDE ATLANTIC AVE AND GUN ROCK AVE	
035-053-000-042-200	035-053-000-042-100-DCR2A	215	MA DPW	HULL	OCT 1930	GUN ROCK TO GREEN HILL	2	ATLANTIC AVENUE NORTH AND SOUTH OF BATH AVENUE	
035-054-000-022-100	035-054-000-022-100-DCR1A	1858	MA DPW	HULL	OCT 1957	PROPOSED SEAWALL CONSTRUCTION GREEN HILL	1	SUMMIT AVENUE	
035-054-000-028-100	035-054-000-028-100-DCR1A	661	MA DPW	HULL	NOV 1945	PROPOSED SEAWALL REPAIRS GREEN HILL	1	DRIFTWAY CONNECTING ATLANTIC AVE AND SUMMIT AVE	
035-054-000-028-100	035-054-000-028-100-DCR1B	1625	MA DPW	HULL	JUNE 1956	PROPOSED SEA WALL & REVETMENT BETWEEN GUN ROCK & GREEN HILL	1	ADJACENT OCEAN SIDE ATLANTIC AVE	
035-054-000-042-100	035-054-000-042-100-DCR1A	1468	MA DPW	HULL	FEB 1955	PROPOSED SHORE PROTECTION SEA WALL REPAIRS & REVETMENT BETWEEN GREEN HILL & GUN ROCK	2	OCEAN SIDE ATLANTIC AVE AND SUMMIT AVE	
035-054-000-042-100	035-054-000-042-100-DCR1B	1888	MA DPW	HULL	APRIL 1958	PROPOSED STONE BREAKWATER, ATLANTIC AVE, GREEN HILL SECTION	2	OFFSHORE OF DRIFTWAY ADJACENT ATLANTIC AVE AND SUMMIT AVE	
035-054-000-042-100	035-054-000-042-100-DCR1C	2516	MA DPW	HULL	MAY 1966	PROPOSED SHORE PROTECTION, CONCRETE SEA WALL, STONE REVETMENT GUN ROCK TO GREEN HILL	2	OFFSHORE OF AND ADJACENT TO DRIFTWAY ADJACENT ATLANTIC AVE AND SUMMIT AVE	

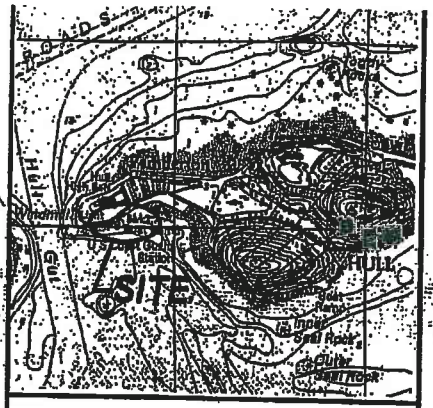
TOWN: HULL
SOURCE: MA-DEP CHAPTER 91 LICENSE
LOCATION: MA-DEP MAIN OFFICE, BOSTON, MA
DATE OF RESEARCH: AUGUST 2006

Structure No	Document No	Contract/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
035-001-000-002-100	035-001-000-002-100.LIC1A.pdf	7997	DEP CH.91	HULL	OCT 14 2000	PLAN ACCOMPANYING PETITION OF: TOWN OF HULL TO CONSTRUCT NEW FLOAT WITH RAMPS, 2 NEW GANGWAYS, AND 4 STEEL PILES, HULL BAY, HULL MASSACHUSETTS	5	MAIN STREET	CONSTRUCTION OF NEW FLOATS, RAMP, GANGWAYS AND STEEL PILES
035-005-000-075-100	035-005-000-075-100.LIC1A.pdf	1738	DEP CH.91	HULL	DEC 10 1935	PLAN ACCOMPANYING PETITION OF THE TOWN OF HULL TO BUILD A STONE JETTY IN HINGHAM BAY HULL, MASS	1	JAMES AVENUE	JETTY IN HINGHAM BAY
035-006-000-042-100	035-006-000-042-100.LIC1A.pdf	2093	DEP CH.91	HULL	OCT 10 1989	PLAN ACCOMPANYING PETITION OF TOWN OF HULL TO BUILD AND MAINTAIN SEAWALL AND REVETMENT ALLERTON HARBOR TOWN OF HULL PLYMOUTH COUNTY, MA DECEMBER, 1988	2	SPRING STREET AND NANTASKET AVENUE	BUILD AND MAINTAIN SEAWALL AND REVETMENT
035-007-000-006-100	035-007-000-006-100-LIC1A.pdf	2093	DEP CH.91	HULL	OCT 10 1989	PLAN ACCOMPANYING PETITION OF TOWN OF HULL TO BUILD AND MAINTAIN SEAWALL AND REVETMENT ALLERTON HARBOR TOWN OF HULL PLYMOUTH COUNTY, MA DECEMBER, 1988	2	SPRING STREET AND NANTASKET AVENUE	BUILD AND MAINTAIN SEAWALL AND REVETMENT
035-007-000-008-100	035-007-000-008-100-LIC1A.pdf	1641	DEP CH.91	HULL	DEC 10 1934	PLAN TO ACCOMPANY PETITION OF TOWN OF HULL BUILD A GRANITE RETAINING WALL IN HINGHAM BAY	1	SPRING STREET AND NANTASKET AVENUE	BUILD AND MAINTAIN SEAWALL AND REVETMENT
035-007-000-008-100	035-007-000-008-100-LIC1B.pdf	2093	DEP CH.91	HULL	OCT 10 1989	PLAN ACCOMPANYING PETITION OF TOWN OF HULL TO BUILD AND MAINTAIN SEAWALL AND REVETMENT ALLERTON HARBOR TOWN OF HULL PLYMOUTH COUNTY, MA DECEMBER, 1988	2	SPRING STREET AND NANTASKET AVENUE	BUILD AND MAINTAIN SEAWALL AND REVETMENT
035-009-000-044-100	035-009-000-044-100-LIC1A.pdf	4860	DEP CH.91	HULL	OCT 28 1964	PLAN TO ACCOMPANY PETITION OF TOWN OF HULL TO MAINTAIN EXISTING FILL, 3 PIERS WITH FLOATS, MARINE R.R. AND MOORING DOLPHINS ALLERTON HARBOR HULL MASSACHUSETTS	2	FITZPATRICK WAY	MAINTAIN FILL, PIERS WITH FLOATS, MARINE R.R. AND MOORING DOLPHINS
035-010-000-003-100	035-010-000-003-100-LIC1A.pdf	7427	DEP CH.91	HULL	NOV 06 1998	PLAN ACCOMPANYING PETITION OF : DEM WATERWAYS TO RECONSTRUCT EXISTING REVETMENT; RAISE CREST 7.5 FT.; AND EXCAVATE 3,500 CY OF SEDIMENT AT SEAWALL BOULEVARD, POINT ALLERTON, HULL MASSACHUSETTS	5	SEAWALL BOULEVARD AT POINT ALLERTON	RECONSTRUCT EXISTING REVETMENT
035-052-000-002-100	035-052-000-002-100-LIC1A.pdf	76	DEP CH.91	HULL	JUNE 1923	PROPOSED REPAIRS TO BREAKWATER GUN ROCK POINT HULL	1	GUN ROCK POINT	REPAIRS TO BREAKWATER
035-053-000-042-100	035-053-000-042-100-LIC1A.pdf	2039	DEP CH.91	HULL	JUNE 8 1989	PLAN ACCOMPANYING THE PETITION OF TOWN OF HULL TO BUILD AND MAINTAIN SEAWALL AND REVETMENT MASSACHUSETTS BAYTOWN OF HULL COUNTY OF PLYMOUTH, MA DECEMBER, 1988	2	ATLANTIC AVE	BUILD AND MAINTAIN SEAWALL AND REVETMENT

DATUM: MLW = 0.0
MHW = 9.3
HTL = 12.1

NOTES:
1. SURVEY BY NVA, MARCH 1999.
2. EXISTING PIER BY METROPOLITAN DISTRICT COMMISSION (CONTRACT P80-0793-CIA), FEB. 1982.





LOCUS MAP

HULL BAY

EXISTING COMMUTER BOAT WHARF

HANDRAIL
FLOODLIGHT
GATE
LOADING RAMP

PROPOSED FLOAT SEE SHEET 2

EXISTING COMMERCIAL WHARF

MODIFY EXISTING CONCRETE CURB AND HANDRAIL

LAND UNDER THE OCEAN

CONCRETE CURB W/HANDRAIL
ELEC. HANDHOLE
WATER MANHOLE
COMMUNICATIONS HANDHOLE
SEWER MH
FENCE
EXIST. GRANITE MASONARY WALL
CONCRETE CURB W/HANDRAIL
EXIST. TIMBER PLATFORM
EXIST. BAIT SHOP
10' PEDESTRIAN WALKWAY
24' VEHICLE ACCESS
FLOODLIGHT
COASTAL BEACH
ELECTRIC SERVICE CABINET
EXISTING UTILITY POLES
EXISTING WATER GATE
EXISTING EDGE OF PAVEMENT
COMMUNICATIONS HANDHOLE
ELECTRIC HANDHOLE
8" WIDE PAVEMENT LINES
GRANITE CURB
UTILITY POLE
MAIN STREET

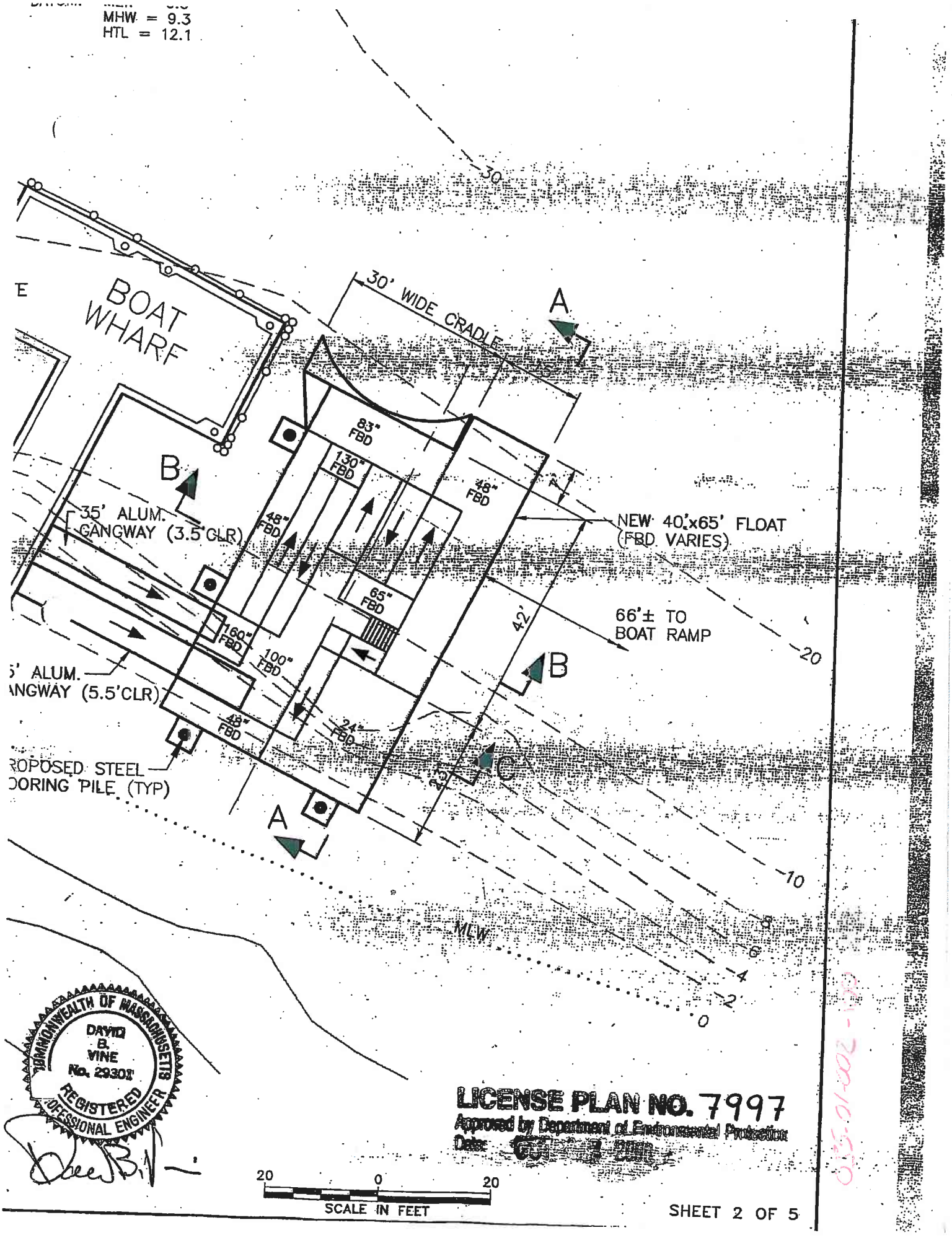
SHEET 1 OF 5

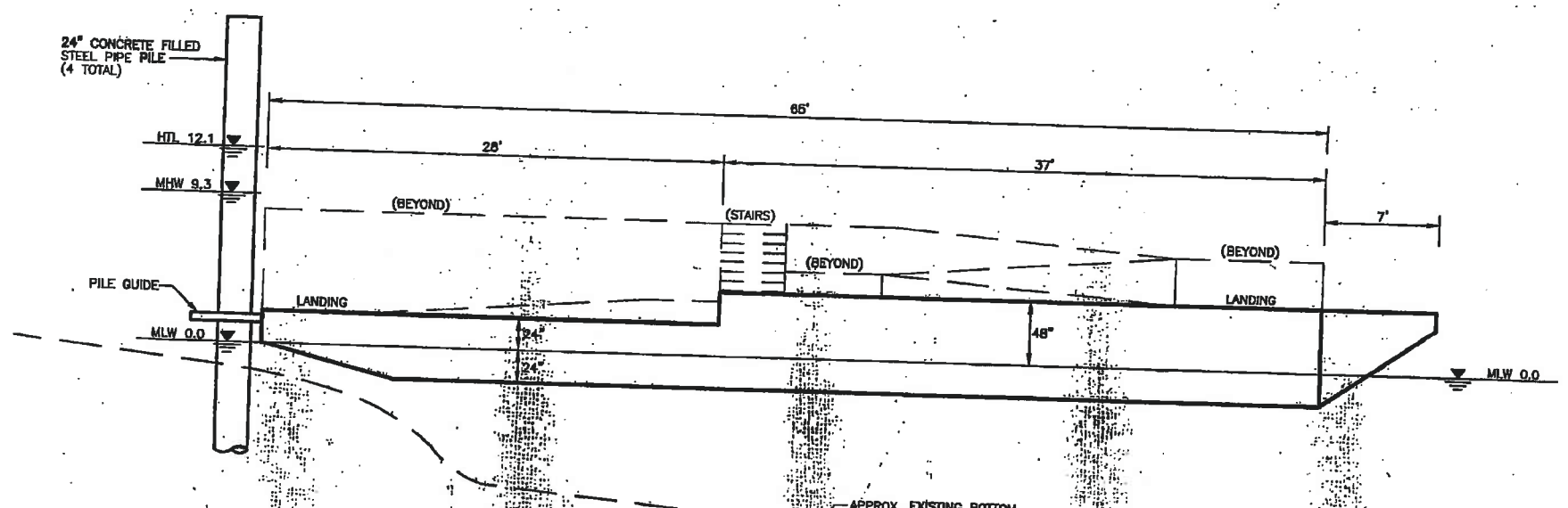
PLAN ACCOMPANYING PETITION OF:
TOWN OF HULL TO CONSTRUCT NEW FLOAT WITH RAMPS, 2 NEW GANGWAYS, AND 4 STEEL PILES
HULL BAY
HULL, MASSACHUSETTS

40 0 40
SCALE IN FEET

LICENSE PLAN NO. 11117
Approved by Department of Environmental Protection of Massachusetts
OCT - 4 2000

035-01002-100


MHW = 9.3
HTL = 12.1
30
BOAT WHARF
30' WIDE CRADLE
A
B
C
83' FBD
130' FBD
48' FBD
48' FBD
65' FBD
160' FBD
100' FBD
48' FBD
24' FBD
35' ALUM. GANGWAY (3.5'CLR)
5' ALUM. ANGWAY (5.5'CLR)
ROPOSED STEEL OORING PILE (TYP)
NEW 40'x65' FLOAT (FBD VARIES)
66'± TO BOAT RAMP
42'
35'
20
10
8
6
4
2
0
MLW
COMMONWEALTH OF MASSACHUSETTS
DAVID B. VINE
No. 29301
REGISTERED PROFESSIONAL ENGINEER
LICENSE PLAN NO. 7997
Approved by Department of Environmental Protection
Date: 6/3/2008
20 0 20
SCALE IN FEET
SHEET 2 OF 5



SECTION A-A

SCALE: 1"=10'

COMMONWEALTH OF MASSACHUSETTS
REGISTERED PROFESSIONAL ENGINEER
DAVID B. VINE
No. 23307

LICENSE PLAN NO. 7997

Approved by Department of Environmental Protection

Date: [illegible]

035-01-502.1

SHEET 3 OF 5

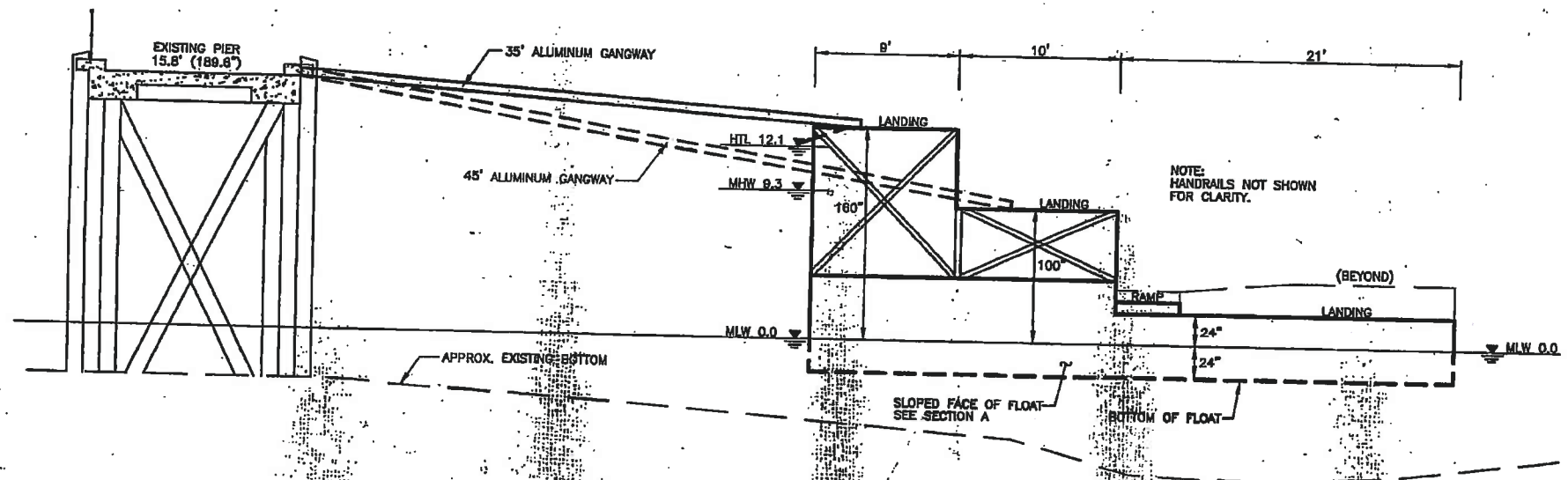
SECTION B–B

SCALE: 1"=10'

COMMONWEALTH OF MASSACHUSETTS
DAVID B. VINE
No. 29301
REGISTERED PROFESSIONAL ENGINEER

LICENSE PLAN NO. 7997
Approved by Department of Environmental Protection
Date: Oct 4 2001

10 0 10
SCALE IN FEET



SECTION C–C

SCALE: 1"=10'

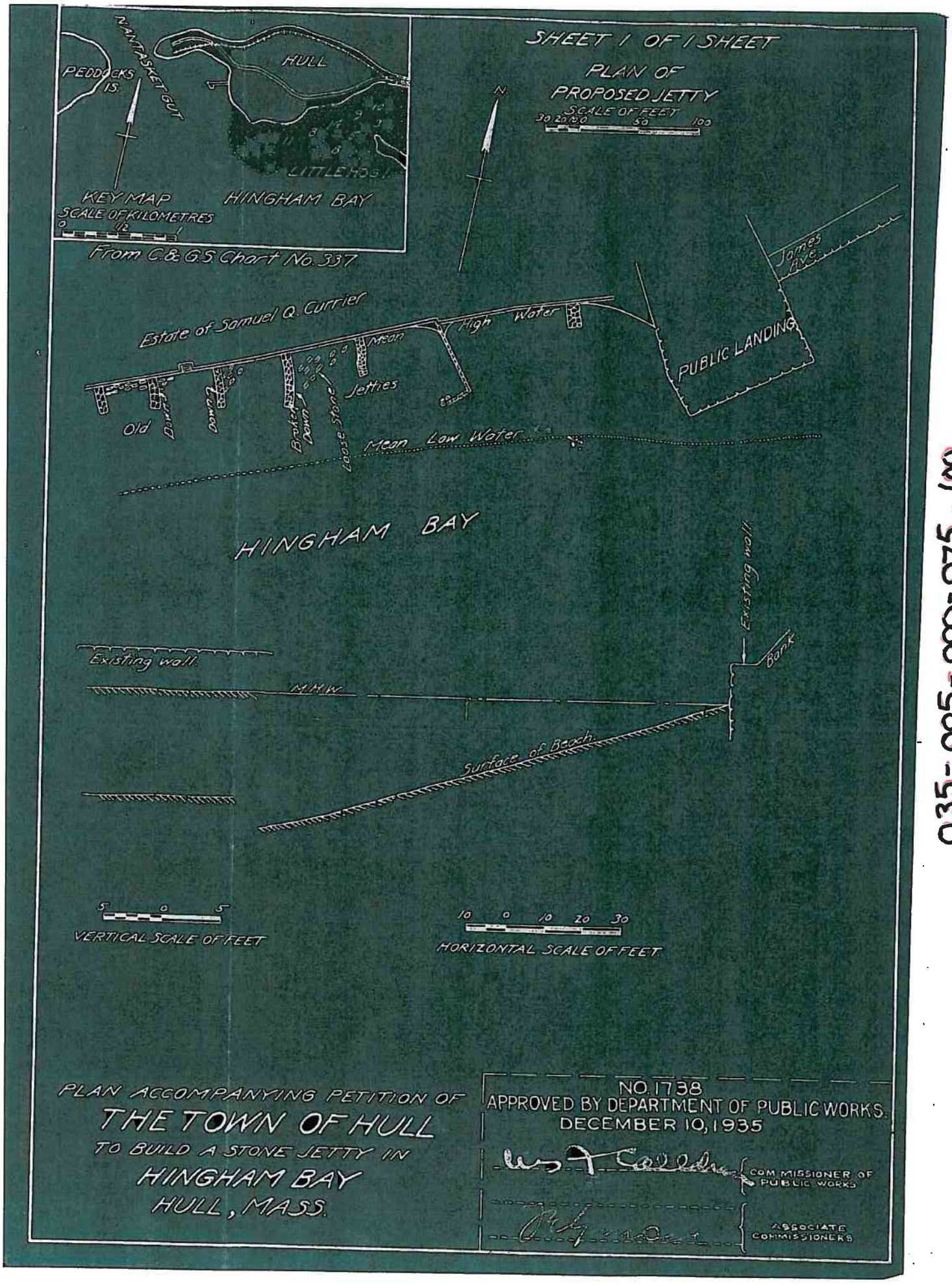
COMMONWEALTH OF MASSACHUSETTS
REGISTERED PROFESSIONAL ENGINEER
No. 23000
DAVID B VINE

LICENSE PLAN NO. 7997

Approved by Department of Environmental Protection

Date: OCT 4 2007

SHEET 5 OF 5

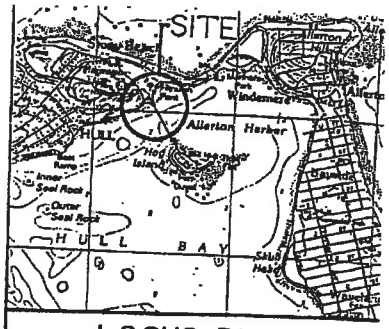


035-005-000-075-100

035-07-008

035-07-006-100

035-06-042-100



LOCUS PLAN
U.S.G.S. SCALE: 1:5000

NANTASKET AVENUE

EXISTING BOAT RAMP

MEAN HIGH WATER

TOP OF WALL

TOWN OF HULL SEWAGE TREATMENT PLANT DPW HULL, MA

EXISTING 36" DIA. STORM DRAIN OUTFALL WITH FLAPPER VALVE

ENTRANCE TO TREATMENT PLANT

PROPOSED REVETMENT TOE

EXISTING BITUMINOUS SIDEWALK

LIMIT OF UNLICENSED STRUCTURES (PROPOSED WORK -565± LF)

EXISTING SPRING ST. BIT. PAVEMENT (26 FT. ±)

ALLERTON HARBOR

MEAN LOW WATER

EXTREME LOW WATER

MEAN HIGH WATER

DUCK LANE

SPRING STREET

EXISTING STONE REVETMENT

SPINNAKER ISLAND-CAUSEWAY

SCALE

0 60' 120'

DATUM MLW = 0.0

TOWN OF HULL HULL CEMETERY DPW HULL

TOP OF WALL

MEAN LOW WATER

MEAN HIGH WATER

CEMETERY ROADWAY

EXTREME LOW WATER

PROPOSED REVETMENT TO MEET EXISTING

PROPOSED REVETMENT TOE

ALLERTON HARBOR

LIMIT OF UNLICENSED STRUCTURE (PROPOSED WORK -570± LF)

COMMONWEALTH OF MASSACHUSETTS
DAVID B. VINE
No. 29301
REGISTERED PROFESSIONAL ENGINEER

David Vine

SHEET 1 OF 2

PLAN ACCOMPANYING THE PETITION OF TOWN OF HULL TO BUILD & MAINTAIN SEAWALL & REVETMENT ALLERTON HARBOR TOWN OF HULL PLYMOUTH COUNTY, MA DECEMBER, 1988

NUCOT-VINE ASSOC. INC.

LICENSE PLAN NO. 2093

Approved by Department of Environmental Protection of Massachusetts

COMMISSIONER

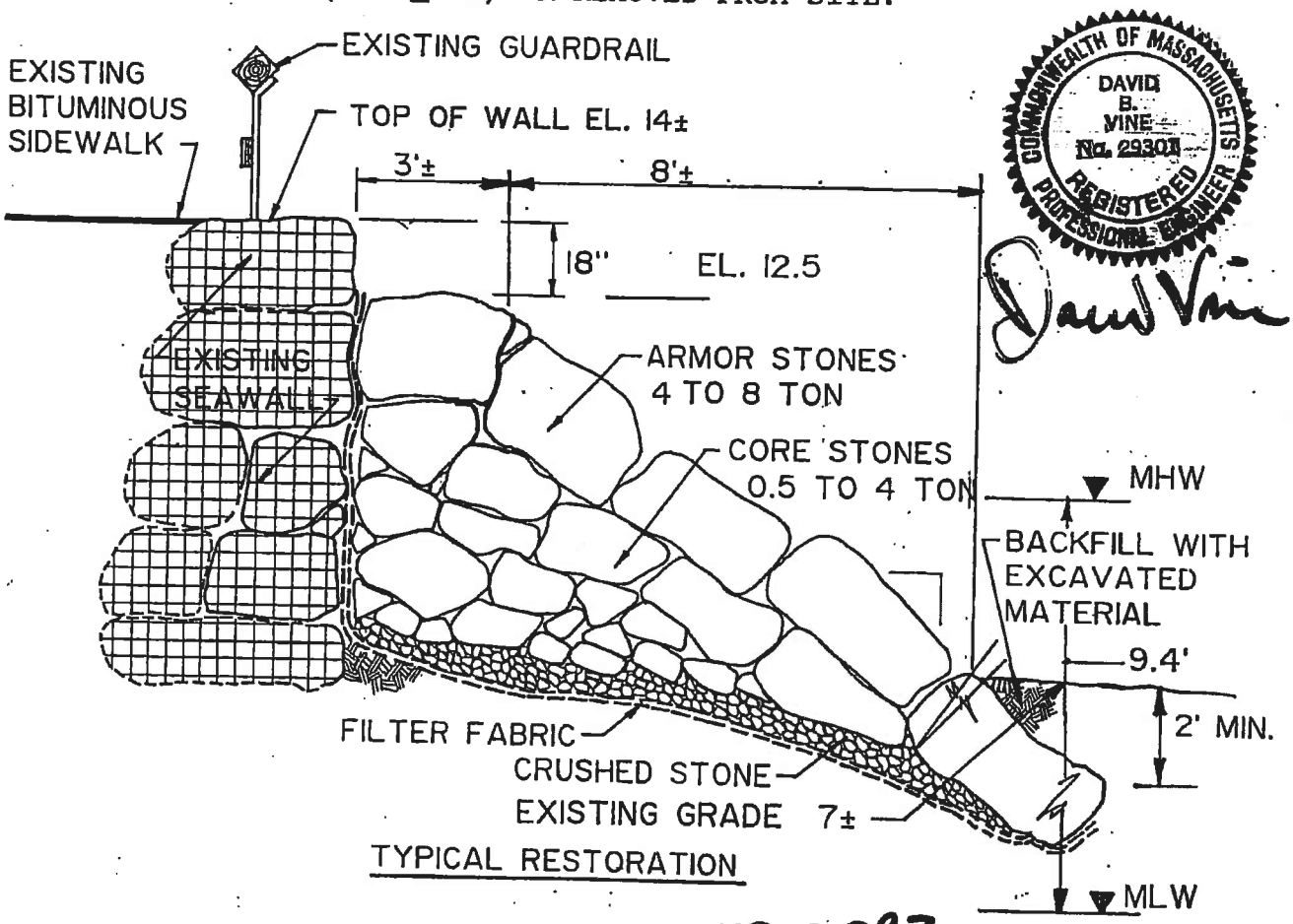
DIVISION DIRECTOR

SECTION CHIEF

Oct 10 1989

DATE

EXCAVATED MATERIAL = 700 ± CY TO BE USED TO RESTORE AREA TO EXISTING GRADE (350 ± CY) OR REMOVED FROM SITE.



TYPICAL RESTORATION

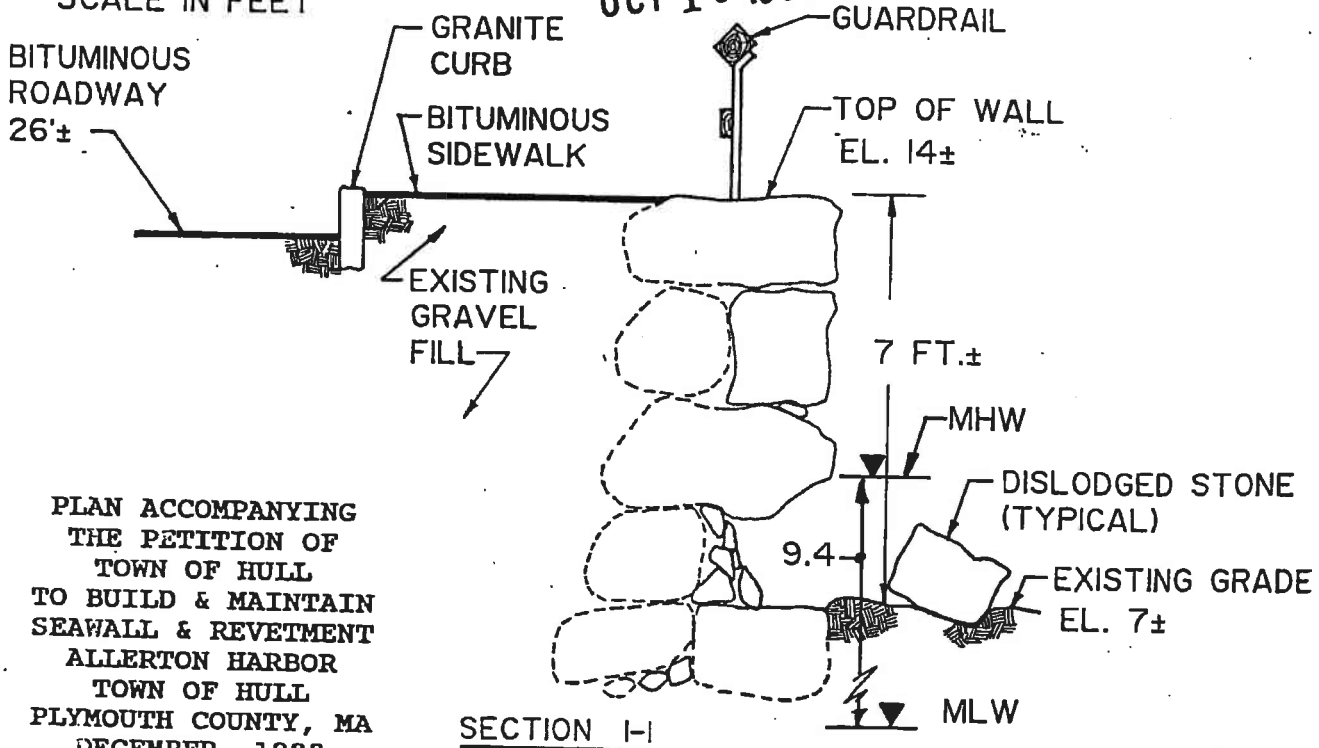
COMMONWEALTH OF MASSACHUSETTS
DAVID B. VINE
No. 29301
REGISTERED PROFESSIONAL ENGINEER

NOTES: DATUM MLW = 0.0

0 1 2 3 6

SCALE IN FEET

LICENSE PLAN NO. 2093
Approved by Department of Environmental PROTECTION
OCT 16 1989

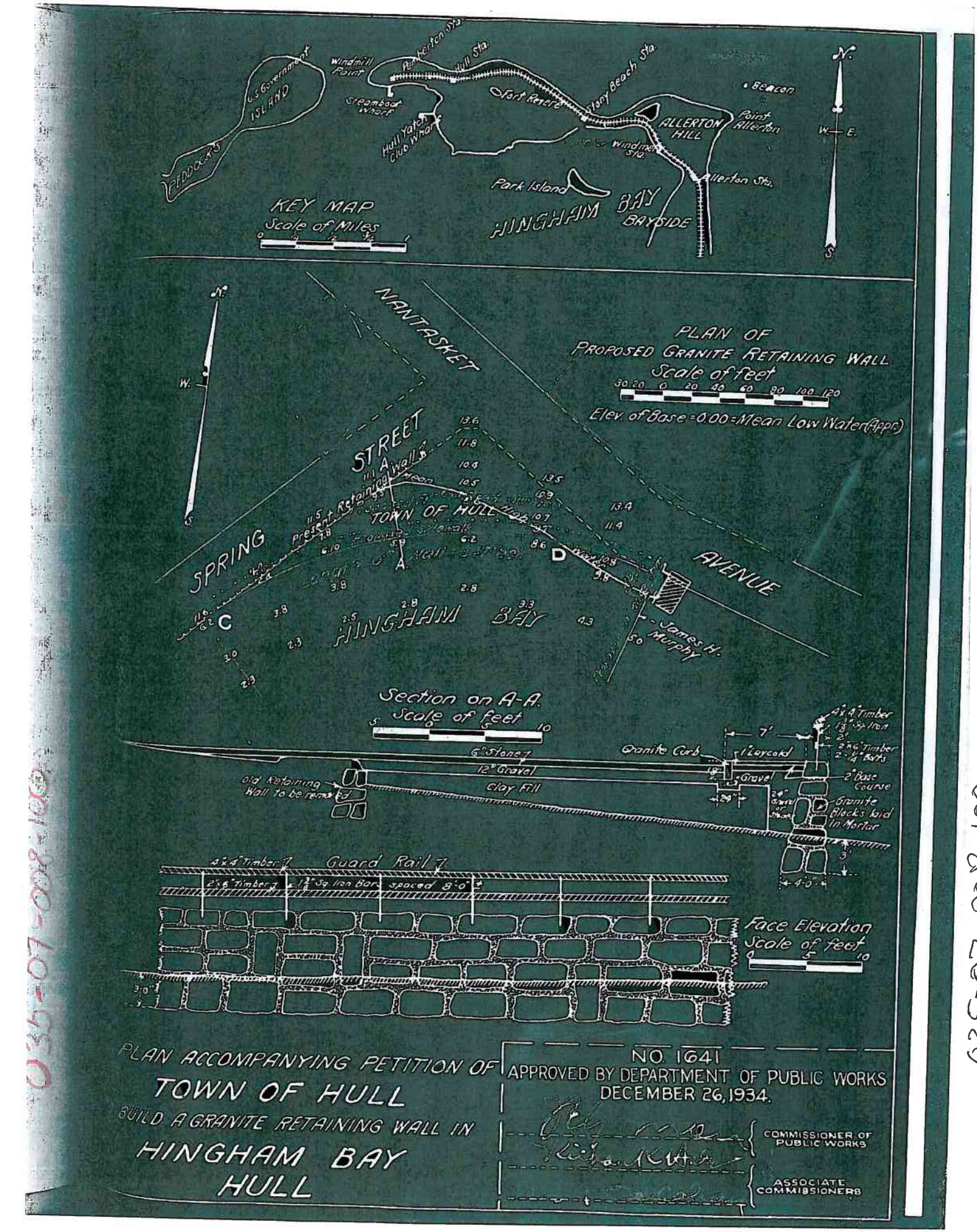


SECTION I-I
EXISTING CONDITION

PLAN ACCOMPANYING
THE PETITION OF
TOWN OF HULL
TO BUILD & MAINTAIN
SEAWALL & REVETMENT
ALLERTON HARBOR
TOWN OF HULL
PLYMOUTH COUNTY, MA
DECEMBER, 1988

NUCCI VINE ASSOC. INC.

SHEET 2 OF 2



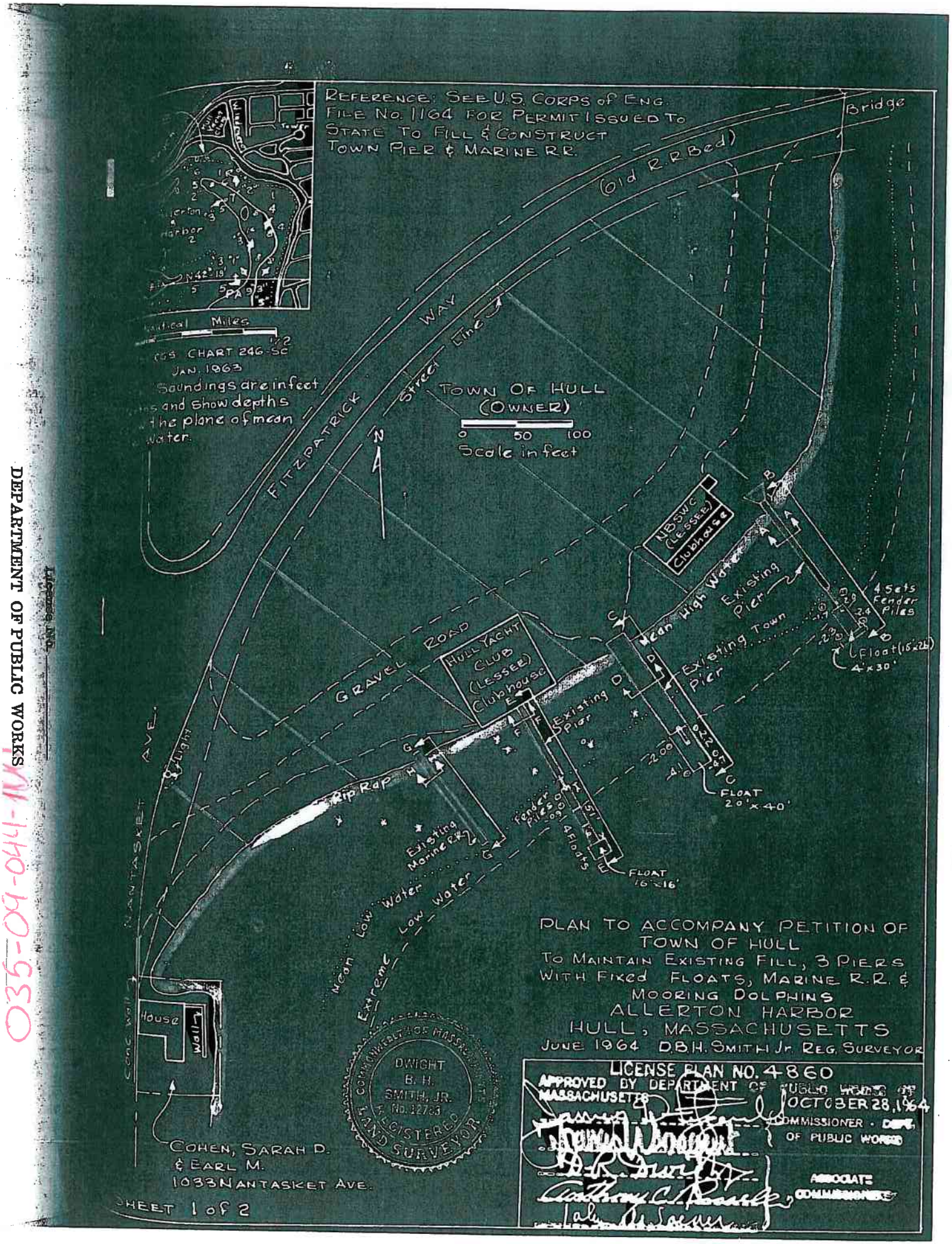
PLAN ACCOMPANYING PETITION OF
TOWN OF HULL
TO BUILD A GRANITE RETAINING WALL IN
HINGHAM BAY
HULL

NO. 1641
APPROVED BY DEPARTMENT OF PUBLIC WORKS
DECEMBER 26, 1934.

COMMISSIONER OF PUBLIC WORKS

ASSOCIATE COMMISSIONERS

035-07-008-001

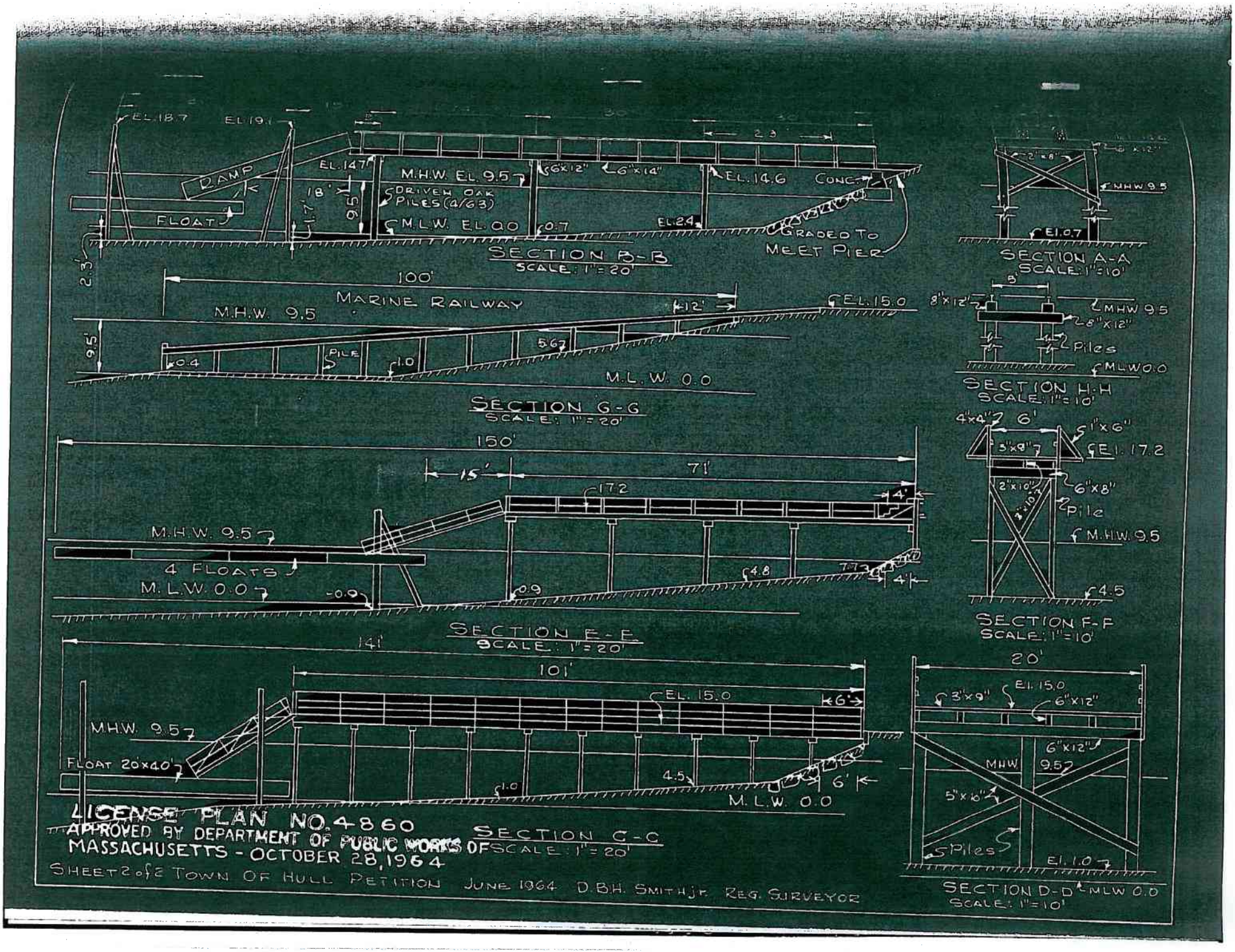


Department of Public Works

License No.

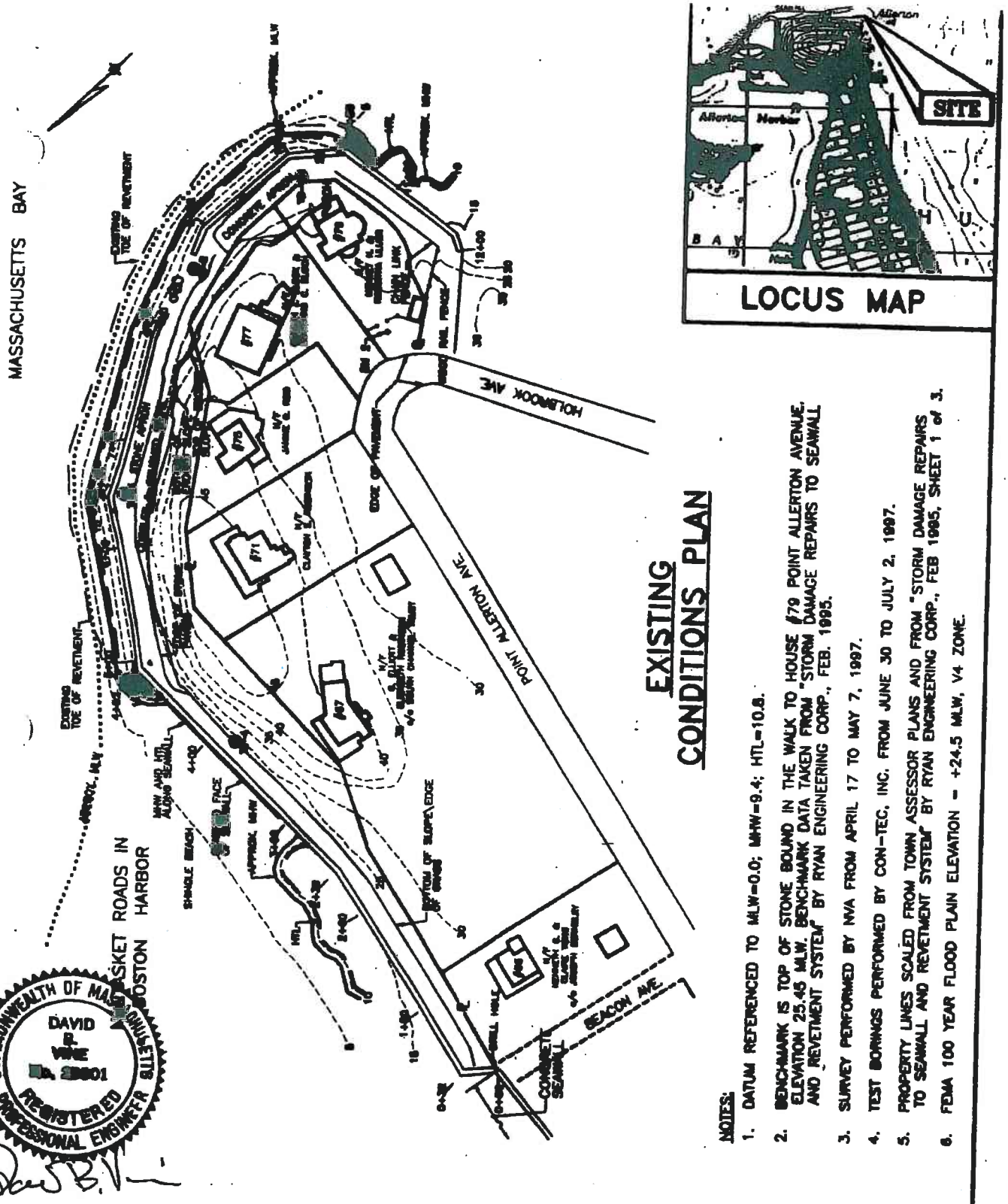
035-04-1140

035-04-1140



LICENSE PLAN NO. 4860
APPROVED BY DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS - OCTOBER 28, 1964

SHEET 2 of 2 TOWN OF HULL PETITION JUNE 1964 D.B.H. SMITH JR. REG. SURVEYOR



NOTES:

1. DATUM REFERENCED TO MLW=0.0; MHW=9.4; HTL=10.8.
2. BENCHMARK IS TOP OF STONE BOUND IN THE WALK TO HOUSE #79 POINT ALLERTON AVENUE. ELEVATION 25.45 M.L.W. BENCHMARK DATA TAKEN FROM "STORM DAMAGE REPAIRS TO SEAWALL AND REVETMENT SYSTEM" BY RYAN ENGINEERING CORP., FEB. 1995.
3. SURVEY PERFORMED BY NVA FROM APRIL 17 TO MAY 7, 1997.
4. TEST BORINGS PERFORMED BY CON-TEC, INC. FROM JUNE 30 TO JULY 2, 1997.
5. PROPERTY LINES SCALED FROM TOWN ASSESSOR PLANS AND FROM "STORM DAMAGE REPAIRS TO SEAWALL AND REVETMENT SYSTEM" BY RYAN ENGINEERING CORP., FEB 1995, SHEET 1 of 3.
6. FEMA 100 YEAR FLOOD PLAIN ELEVATION = +24.5 MLW, V4 ZONE.

COMMONWEALTH OF MASSACHUSETTS
DAVID R. WISE
No. 28901
REGISTERED PROFESSIONAL ENGINEER

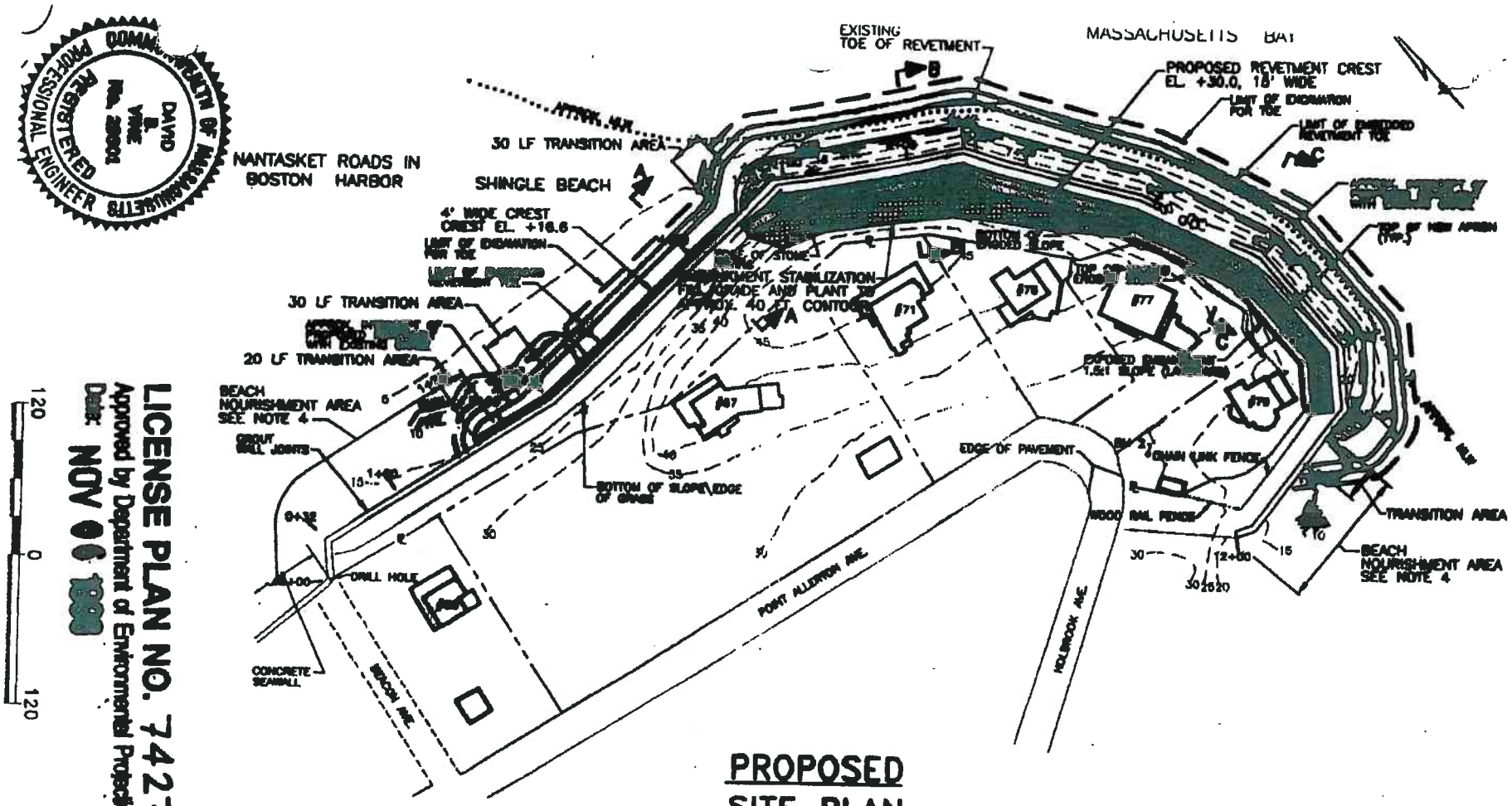
PLAN ACCOMPANYING PETITION OF: DEM WATERWAYS TO RECONSTRUCT EXISTING REVETMENT; RAISE CREST 7.5 FT.; AND EXCAVATE 3,500 CY OF SEDIMENT AT SEAWALL BOULEVARD, POINT ALLERTON, HULL, MASSACHUSETTS

120 0 120
SCALE IN FEET

SHEET 1 OF 5

LICENSE PLAN NO. 7427
Approved by Department of Environmental Protection of Massachusetts NOV 06 1998

035-10-003-100



PROPOSED SITE PLAN

LICENSE PLAN NO. 7427
Approved by Department of Environmental Protection
Date: NOV 00 1997

NOTES:

1. DATUM REFERENCED TO MLW=0.0; MHW=9.4; HTL=10.8.
2. SURVEY PERFORMED BY NVA FROM APRIL 17 TO MAY 1997.
3. PROPERTY LINES SCALED FROM TOWN ASSESSOR PLANS AND FROM "STORM DAMAGE REPAIRS AND REVETMENT SYSTEM" BY RYAN ENGINEERING CORP., FEB. 1995, SHEET 1 of 3.
4. EXCAVATED MATERIAL FOR REVETMENT TO BE TRANSPORTED TO NOURISHMENT AREAS.

095

e1: 035-10-003-100

SECTION A-A

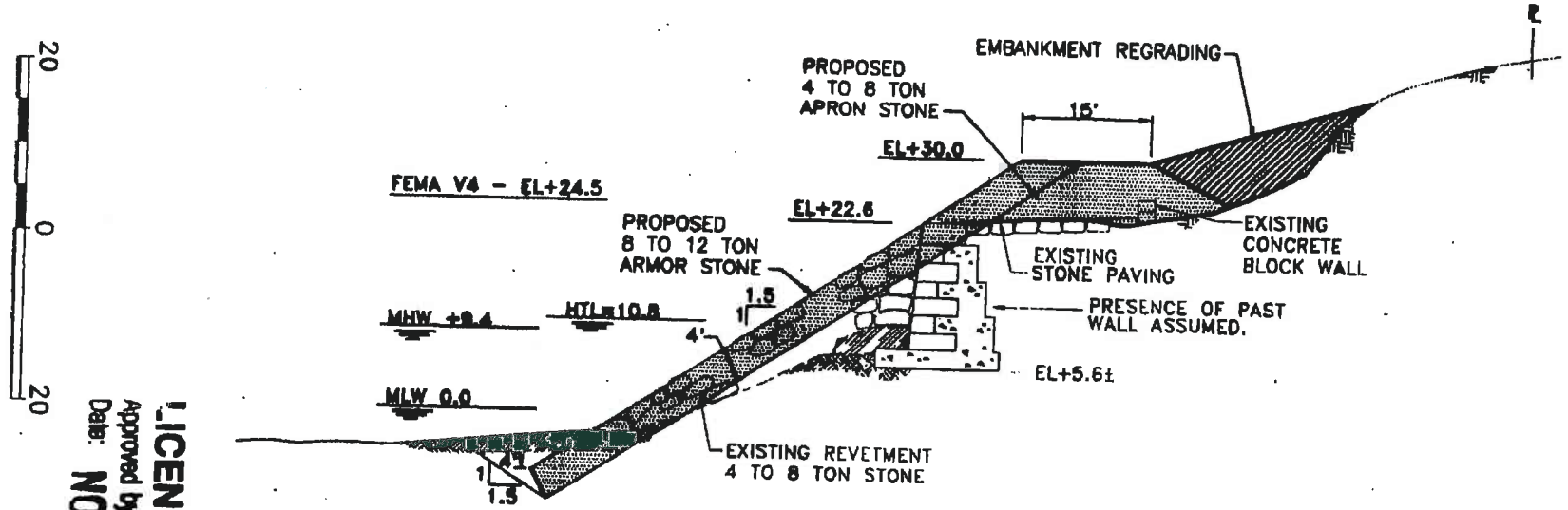
COMMONWEALTH OF MASSACHUSETTS
DAVID
B.
VINE
No. 29301
REGISTERED
PROFESSIONAL ENGINEER

LICENSE PLAN NO. 7427
Approved by Department of Environmental Protection
Date: NOV 06 1991

20 0 20
SCALE IN FEET

SHEET 3 OF 5

035-10-003-100

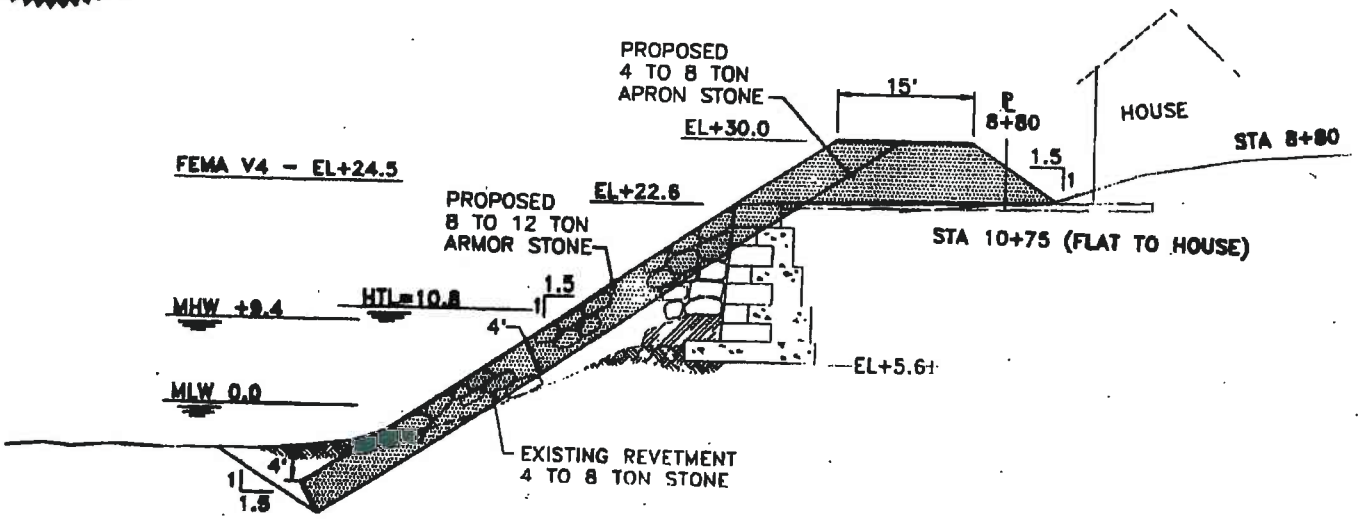


SECTION B-B

LICENSE PLAN NO. 7427
Approved by Department of Environmental Protection
Date: NOV 06 1998

4085

035-10-003-100



SECTION C–C

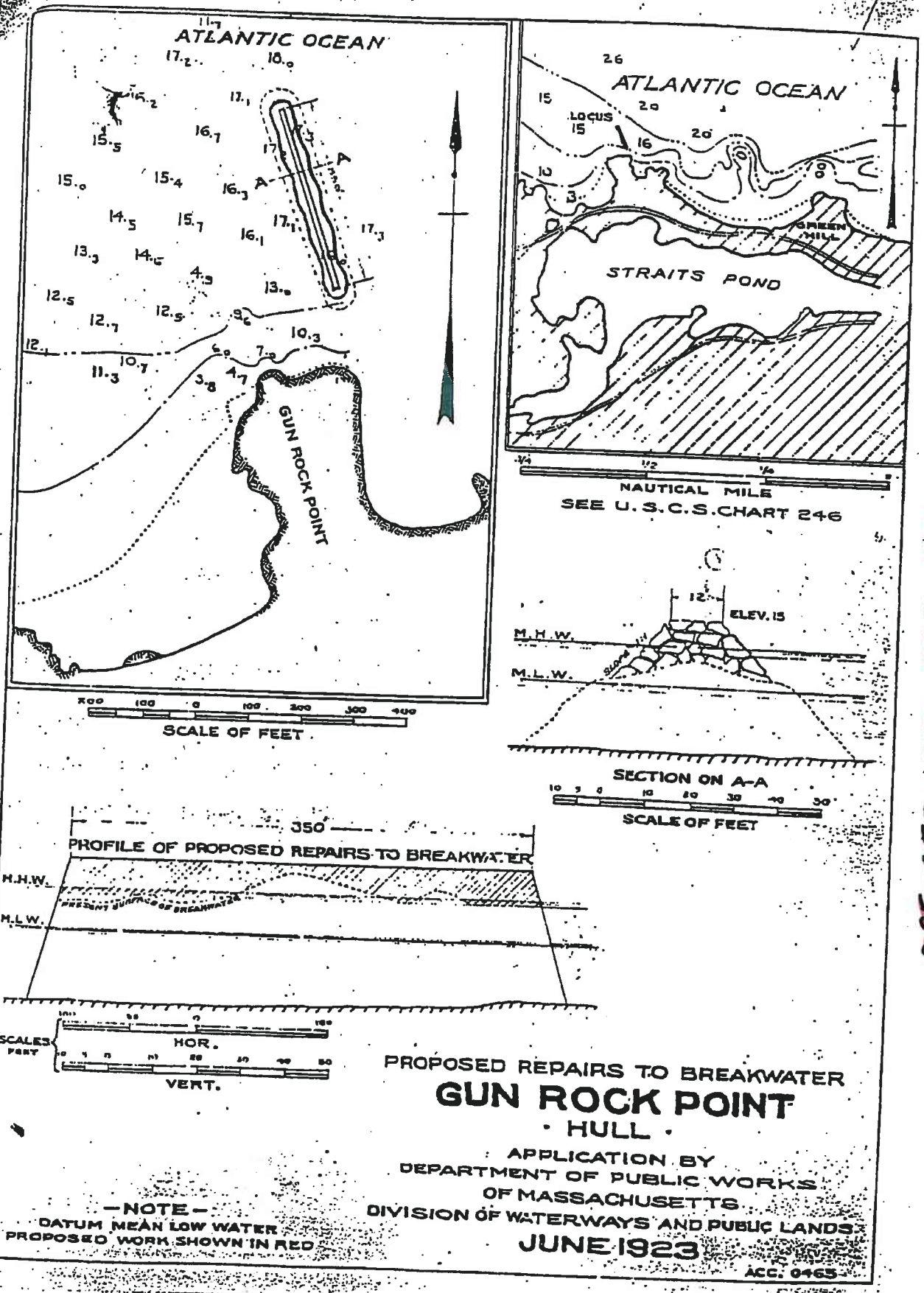
LICENSE PLAN NO. 7427
Approved by Department of Environmental Protection
Date: **NOV 06 1990**

SHEET 5 OF 5

035-10-003-100

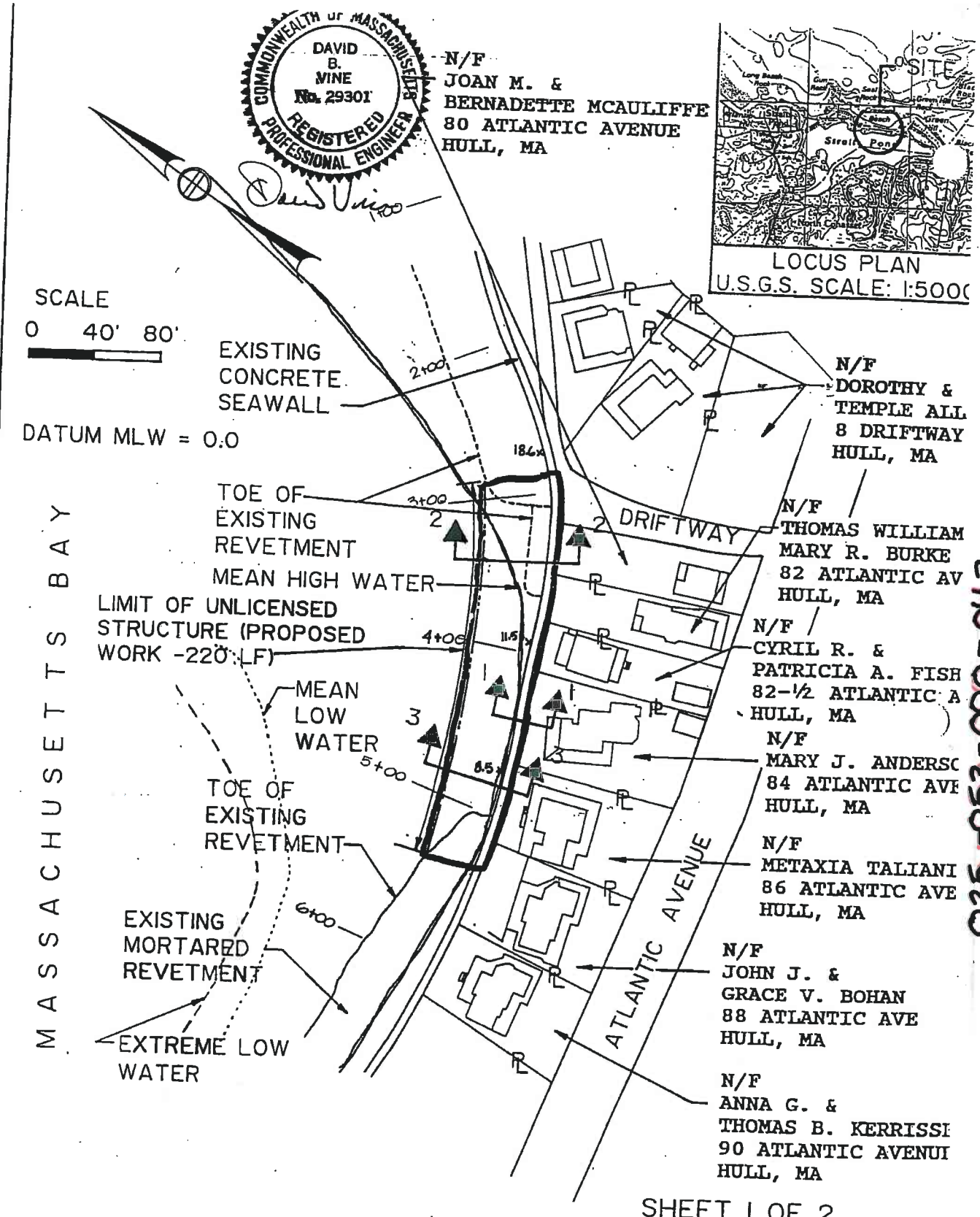
144-76.2

Contract No. 76



035-052-000-200-001

035-52-02



035-053-000-042

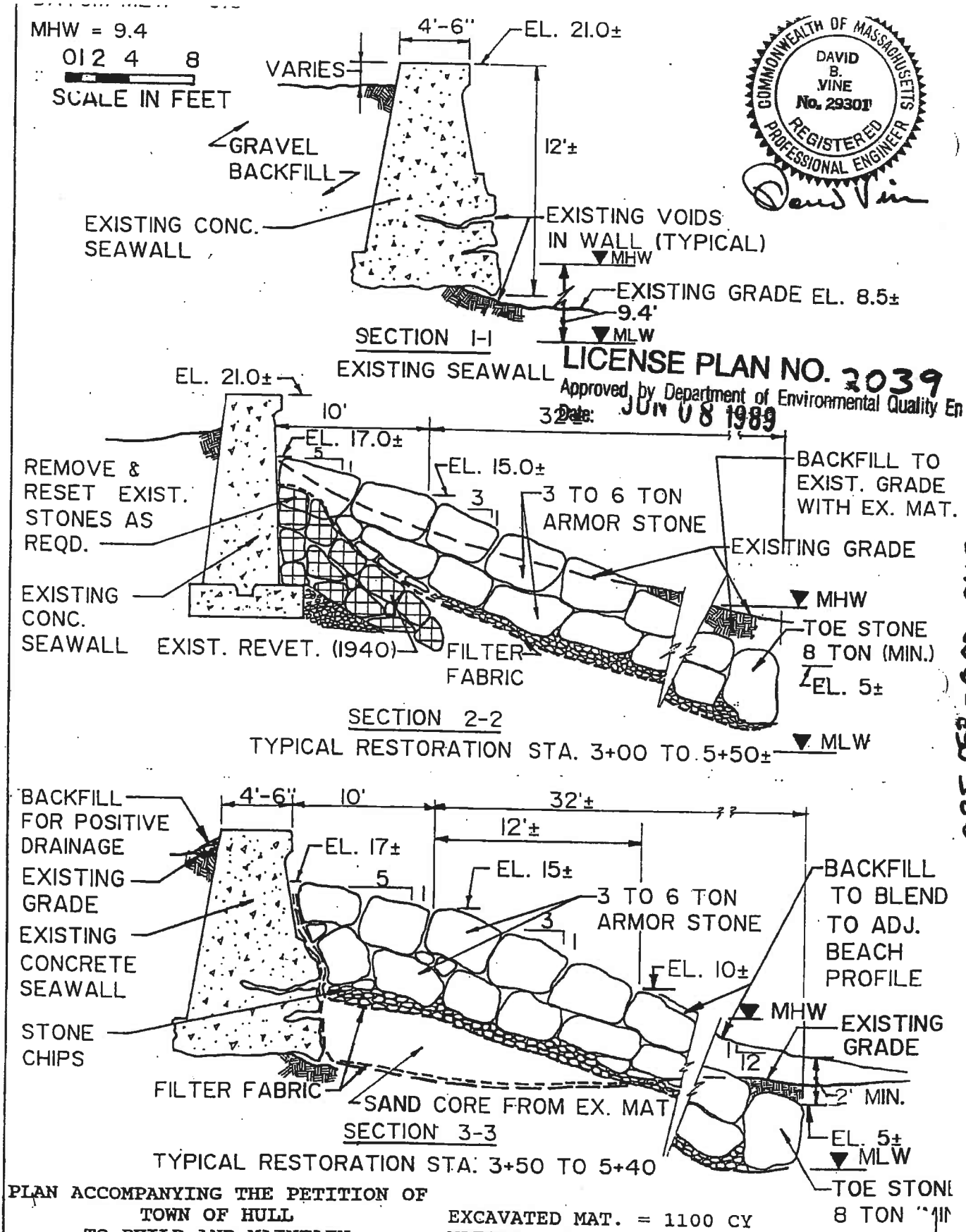
035-53-042

SHEET 1 OF 2

PLAN ACCOMPANYING THE PETITION OF
TOWN OF HULL
TO BUILD AND MAINTAIN
SEAWALL AND REVETMENT
MASSACHUSETTS BAY
TOWN OF HULL
COUNTY OF PLYMOUTH, MA
DECEMBER, 1988
NUCCI VINE ASSOCIATES. INC.

LICENSE PLAN NO. 2039
Approved by Department of Environmental Quality Engineering
of Massachusetts

COMMISSIONER
DIVISION DIRECTOR
SECTION CHIEF
DATE



COMMONWEALTH OF MASSACHUSETTS
DAVID B. VINE
No. 29307
REGISTERED PROFESSIONAL ENGINEER

LICENSE PLAN NO. 2039
Approved by Department of Environmental Quality En
Date: JUN 08 1989

035-53-042

035-53-042

PLAN ACCOMPANYING THE PETITION OF
TOWN OF HULL
TO BUILD AND MAINTAIN
SEAWALL AND REVETMENT
MASSACHUSETTS BAY
TOWN OF HULL
COUNTY OF PLYMOUTH, MA
DECEMBER, 1988
NUCCI VINE ASSOCIATES, INC.

EXCAVATED MAT. = 1100 CY
MATERIAL TO BE PLACED IN CORE (300 CY±), BACKFILL TO GRADE (600 CY±) WITH REMAINING TO BE PLACED BEHIND WALL FOR POSITIVE DRAINAGE OR REMOVED FROM SITE.

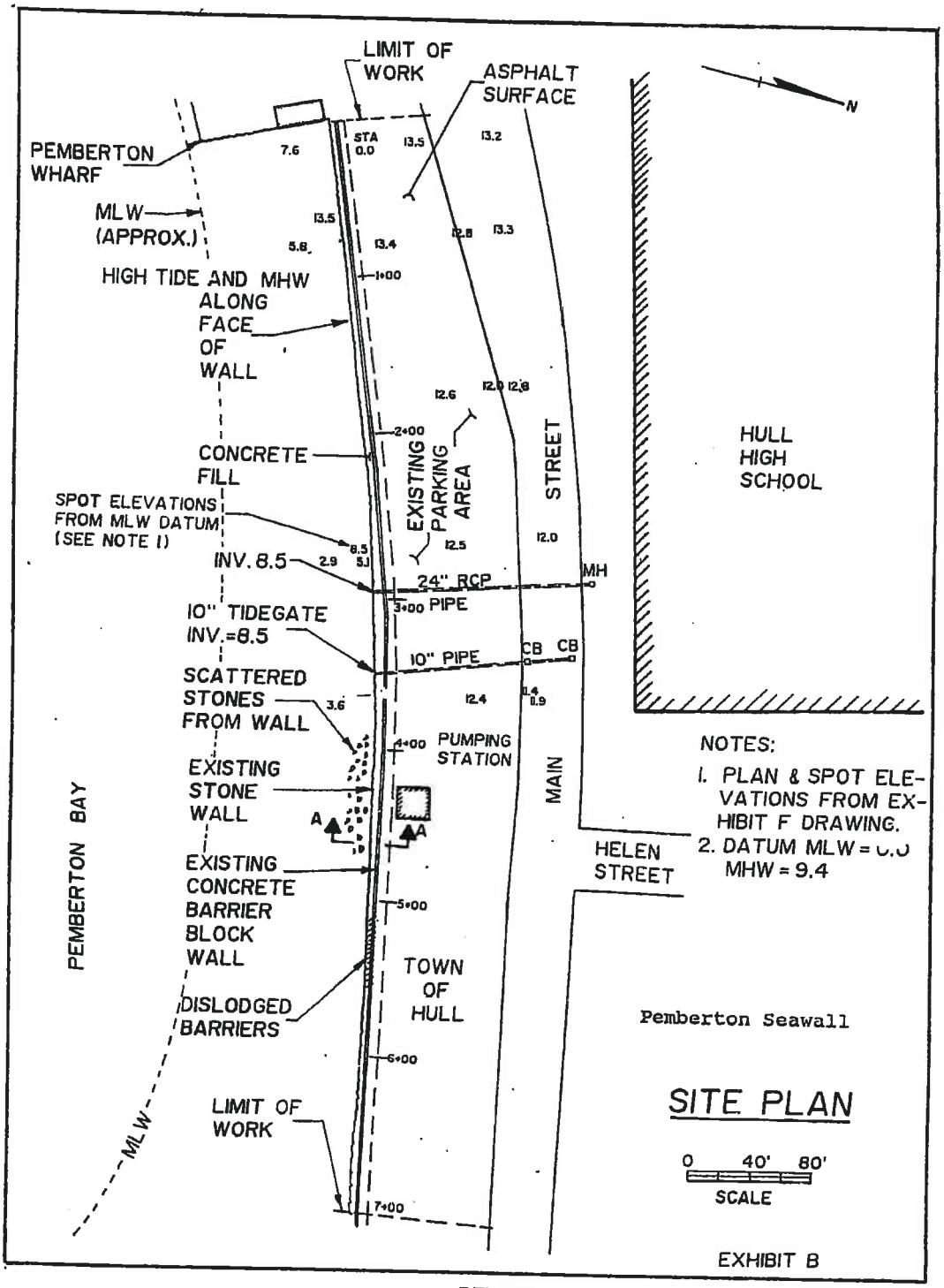
TOWN: HULL
SOURCE: U.S. - ARMY CORPS OF ENGINEERS
LOCATION: U.S.A.C.E. - NEW ENGLAND DISTRICT, CONCORD, MA
DATE OF RESEARCH: AUGUST 2006

BCE Structure No	Document No	Permit/ Drawing Number	Entity	Municipality	Date	Title	Sheets	Location	Description
035-001-000-002-100	035-001-000-002-100-COE1A.pdf	USACE-CENED-OD-R1990-00827	USACE	HULL	APRIL 12 1990	PEMBERTON SEAWALL	2	MAIN STREET	CONSTRUCTION AND REPAIRS TO PEMBERTON SEAWALL
035-009-000-033-100	035-009-000-033-100-COE1A.pdf	USACE-CENED-OD-R1990-00827	USACE	HULL	APRIL 12 1990	NANTASKET AVENUE SEAWALL AND REVETMENT	2	INTERSECTION OF NANTASKET AVENUE AND FITZPATRICK WAY.	SEAWALL REPAIR
035-010-000-003-100	035-010-000-003-100-COE1A.pdf	USACE-CENED-OD-R-199800254	USACE	HULL	JUNE 1998	EXISTING CONDITIONS PLAN, PROPOSED SITE PLAN, SECTION A-A	3	SEAWALL BOULEVARD	CONSTRUCTION OF REVETMENT
035-014-000-048-100	035-014-000-048-100-COE1A.pdf	USACE-CENED-R-200102871	USACE	HULL	DEC. 2001	CADISH AVENUE EMBANKMENT STABILIZATION PROJECT	5	CADISH AVENUE	SHORELINE STABILIZATION USING REVETMENT
035-051-000-038-100	035-051-000-038-100-COE1A.pdf	USACE-NEDOD 69-00052	USACE	HULL	APRIL 12 1990	STONEY BEACH ROAD SEAWALL	2	STONEY BEACH ROAD	SEAWALL CONSTRUCTION
035-052-000-002-100	035-052-000-002-100-COE1A.pdf	USACE-NEDNP 60-268	USACE	HULL	JUNE 1960	PROPOSED BREAKWATER WALL VICINITY OF GUN ROCK	1	GUN ROCK IN MASSACHUSETTS BAY	PROPOSED BREAKWATER
035-052-000-002-100	035-052-000-002-100-COE1B.pdf	USACE 85-502	USACE	HULL	1985	GUN ROCK BREAKWATER, PROPOSED BREAKWATER REPAIRS	3	GUN ROCK IN MASSACHUSETTS BAY	BREAKWATER REPAIRS
035-052-000-069-100	035-052-000-069-100-COE1A.pdf	USACE-CENED-OD-R-199602281	USACE	HULL	1996	GUN ROCK AVENUE, HULL MASSACHUSETTS, EXISTING SITE PLAN AND SECTIONS.	2	GUN ROCK AVENUE	SHORELINE STABILIZATION USING REVETMENT
035-052-000-069-100	035-052-000-069-100-COE1B.pdf	USACE NEDOD-S 66-182	USACE	HULL	MAY 1966	PROPOSED SHORE PROTECTION CONCRETE SEA WALL, STONE REVETMENT, MASSACHUSETTS BAY, GUN ROCK TO GREEN HILL	2	GUN ROCK TO GREEN HILL	PROPOSED STONE REVETMENT AND SEAWALL FOR SHORELINE PROTECTION
035-053-000-042-100	035-053-000-042-100.COE1A.pdf	USACE NED-OD-R-1996022B1	USACE	HULL	1996	GUN ROCK AVENUE, HULL MASSACHUSETTS, EXISTING SITE PLAN AND SECTIONS.	2	GUN ROCK AVENUE	SHORELINE STABILIZATION USING REVETMENT
035-053-000-042-100	035-053-000-042-100-COE1B.pdf	USACE NEDOD-S-66-182	USACE	HULL	MAY 1966	PROPOSED SHORE PROTECTION CONCRETE SEA WALL, STONE REVETMENT, MASSACHUSETTS BAY, GUN ROCK TO GREEN HILL	2	GUN ROCK TO GREEN HILL	PROPOSED STONE REVETMENT AND SEAWALL FOR SHORELINE PROTECTION
035-054-000-042-100	035-054-000-042-100-COE1A.pdf	USACE NEDNP 58-215	USACE	HULL	MAY1958	PROPOSED BREAKWATER VICINITY OF GREEN HILL	1	GREEN HILL	PROPOSED BREAKWATER
035-054-000-042-100	035-054-000-042-100-COE1B.pdf	USACE NEDOD-S 66-182	USACE	HULL	MAY 1966	PROPOSED SHORE PROTECTION CONCRETE SEA WALL, STONE REVETMENT, MASSACHUSETTS BAY, GUN ROCK TO GREEN HILL	2	GUN ROCK TO GREEN HILL	PROPOSED STONE REVETMENT AND SEAWALL FOR SHORELINE PROTECTION

035-001-000-002-100

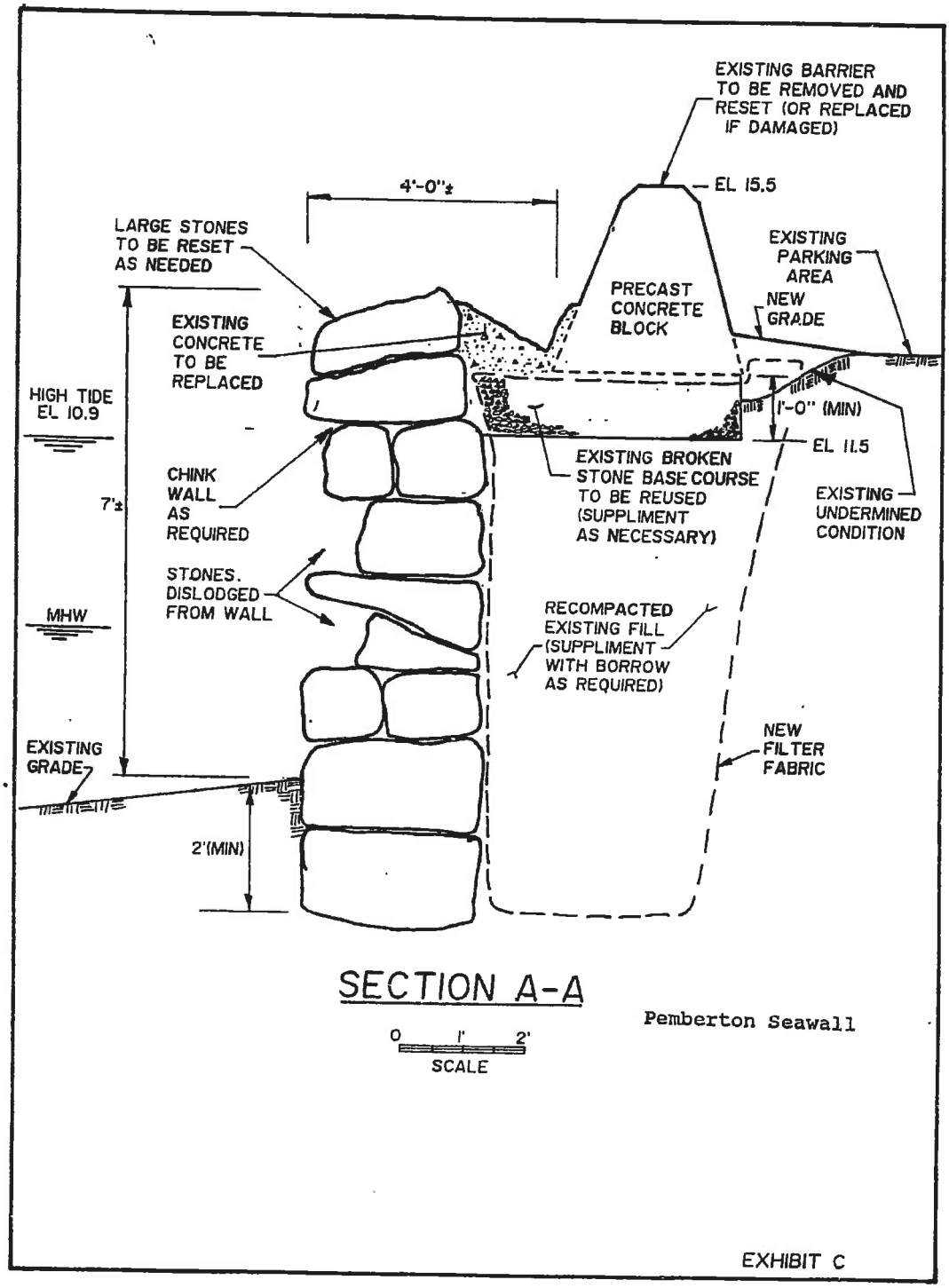
USACE
CENED-OD-R 1990-00827

001995



REVISED 4/12/90

1 of 2



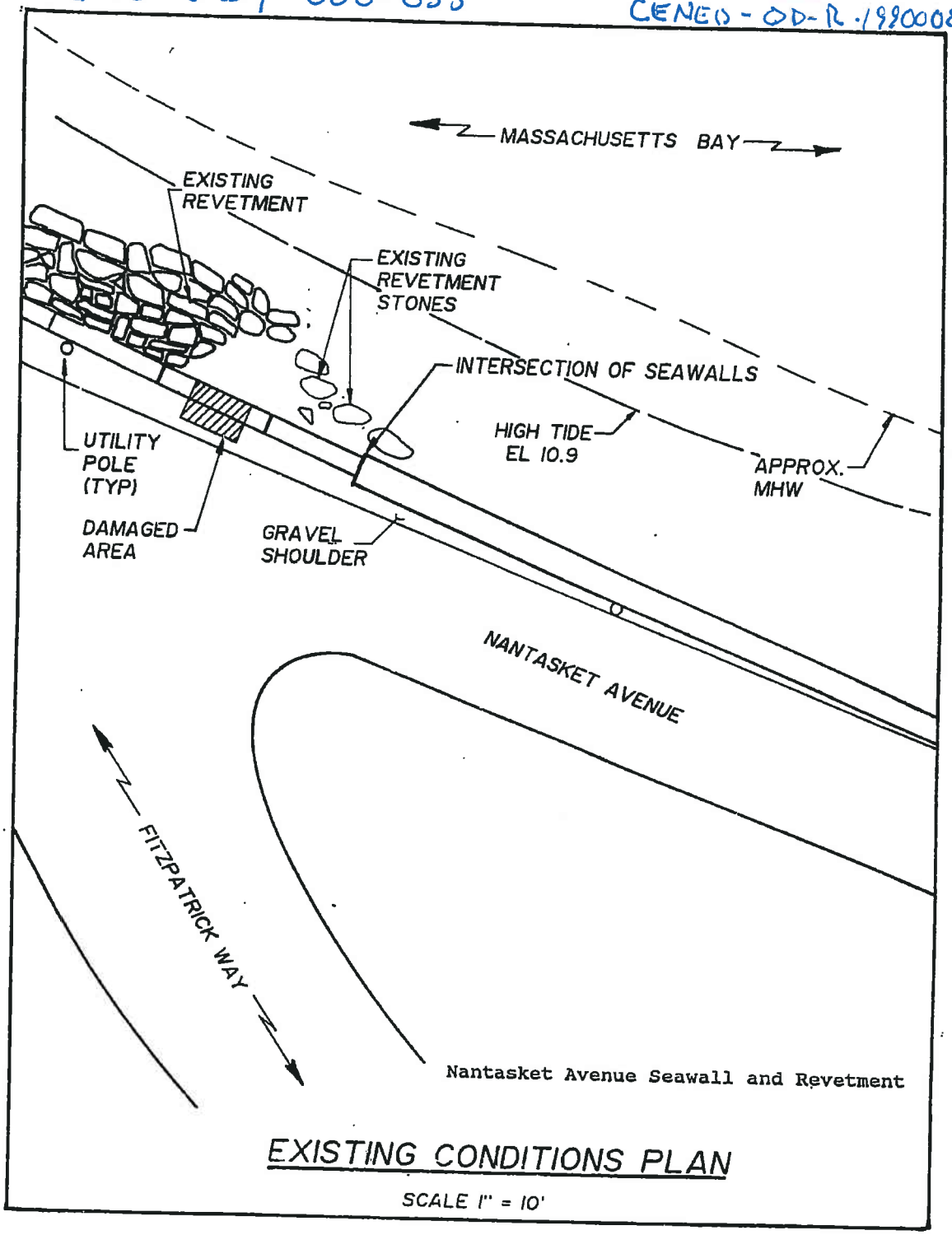
SECTION A-A

Pemberton Seawall

0 1' 2'
SCALE

EXHIBIT C

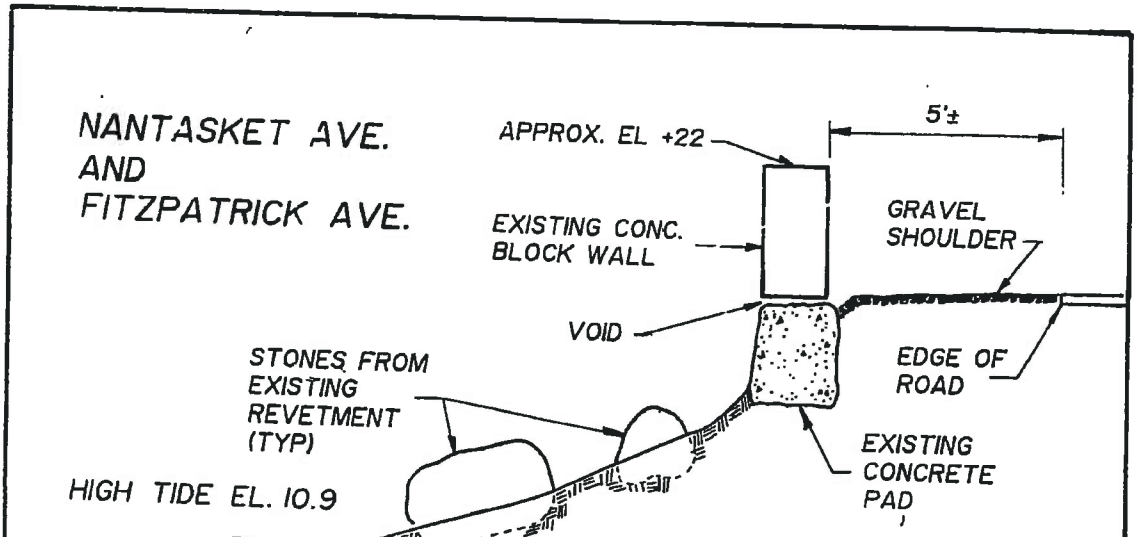
REVISED 4/12/90



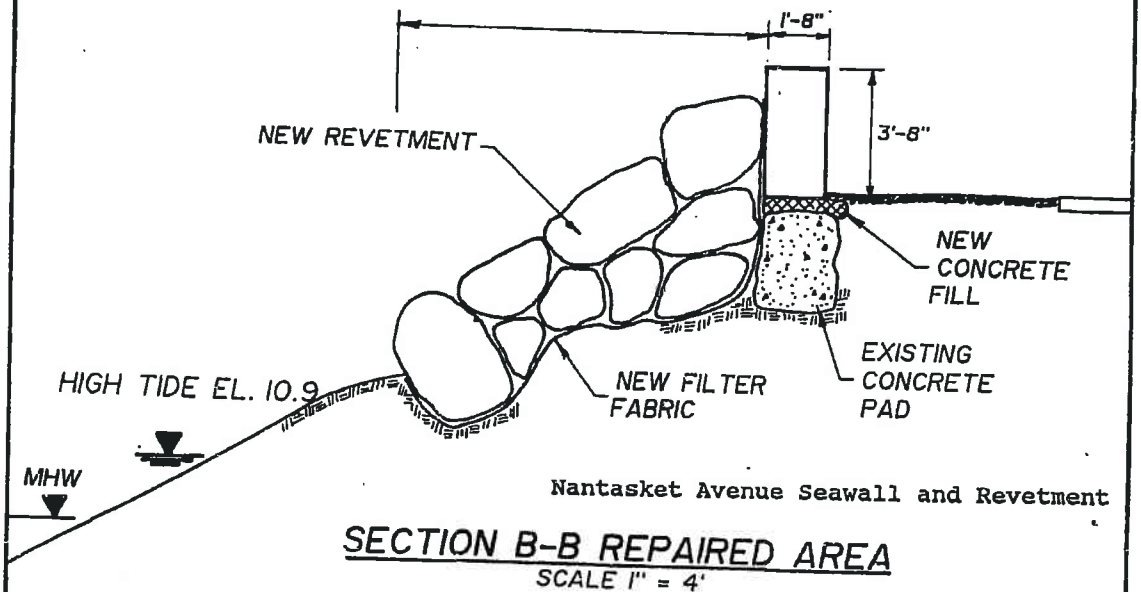
EXISTING CONDITIONS PLAN

SCALE 1" = 10'

REVISED 4/12/90 EXHIBIT B



SECTION A-A EXISTING CONDITIONS
SCALE 1" = 4'



Nantasket Avenue Seawall and Revetment

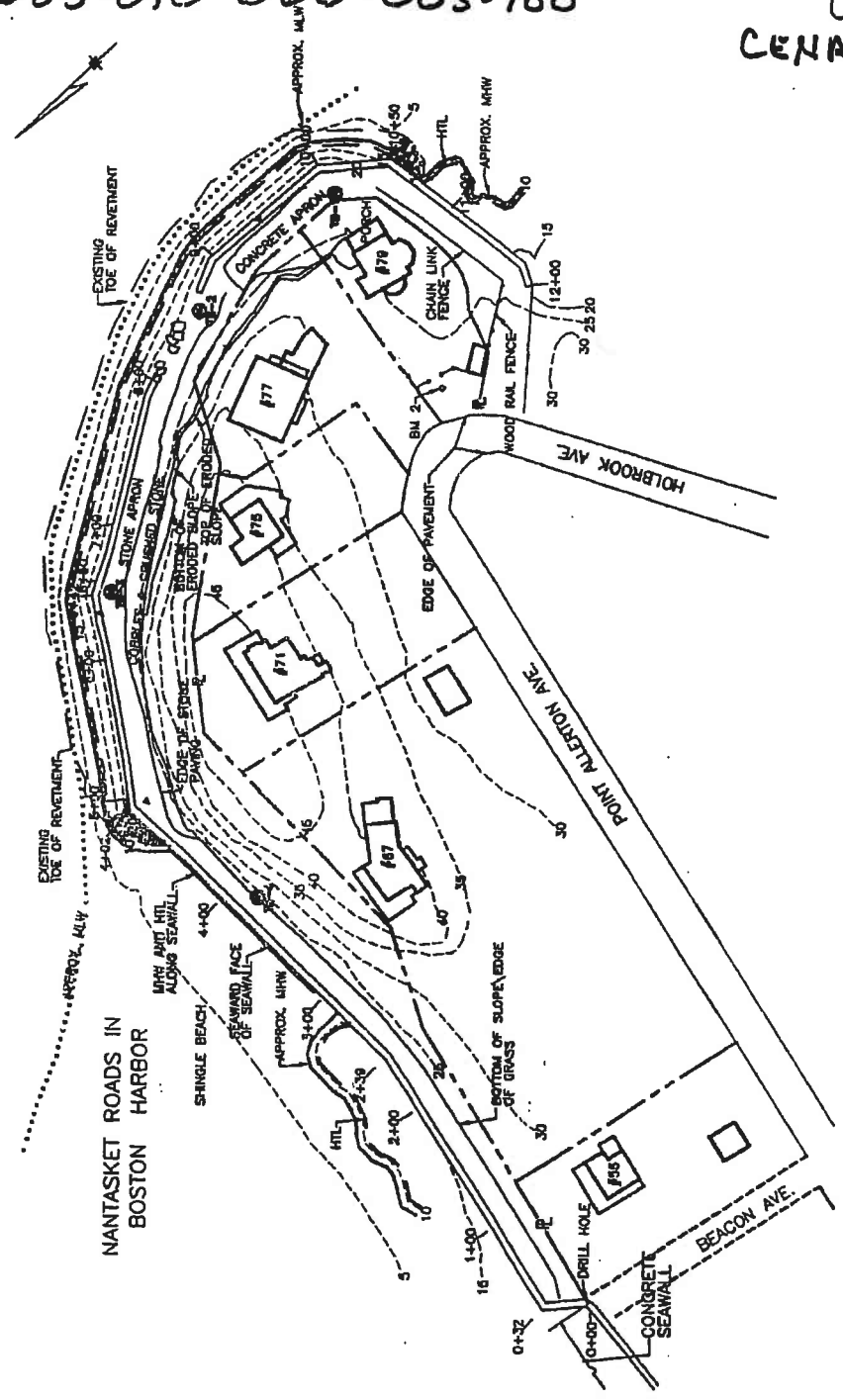
SECTION B-B REPAIRED AREA
SCALE 1" = 4'

EXHIBIT D

2072

035-010-000-003-100

USACE
CENAE-CO-R-199800254



NOTES:

1. DATUM REFERENCED TO MLW=0.0; MHW=9.4; HTL=10.8.
2. BENCHMARK IS TOP OF STONE BOUND IN THE WALK TO HOUSE #79 POINT ALLERTON AVENUE. ELEVATION 25.45 MLW. BENCHMARK DATA TAKEN FROM "STORM DAMAGE REPAIRS TO SEAWALL AND REVETMENT SYSTEM" BY RYAN ENGINEERING CORP., FEB. 1995.
3. SURVEY PERFORMED BY NVA FROM APRIL 17 TO MAY 7, 1997.
4. TEST BORINGS PERFORMED BY CON-TEC, INC. FROM JUNE 30 TO JULY 2, 1997.
5. PROPERTY LINES SCALED FROM TOWN ASSESSOR PLANS AND FROM "STORM DAMAGE REPAIRS TO SEAWALL AND REVETMENT SYSTEM" BY RYAN ENGINEERING CORP., FEB 1995, SHEET 1 of 3.

DATUM: MLW = 0.0
MHW = 9.4
HTL = 10.8

120 0 120
SCALE IN FEET

EXISTING CONDITIONS PLAN

AT: SEAWALL BOULEVARD, HULL, MA.
COUNTY: PLYMOUTH

APPLICATION BY:
DEPT. OF ENVIRONMENTAL MGT.
OFFICE OF WATERWAYS
HINGHAM, MASSACHUSETTS

DATE: JUNE 1998 SHEET 2 of 6

NUCCI VINE ASSOCIATES, INC. NEWBURYPORT, MASSACHUSETTS

NOTES:

1. DATUM REFERENCED TO MLW=0.0; MHW=9.4; HTL=10.8.
2. SURVEY PERFORMED BY NVA FROM APRIL 17 TO MAY 1997.
3. PROPERTY LINES SCALED FROM TOWN ASSESSOR PLANS AND FROM "STORM DAMAGE REPAIRS AND REVETMENT SYSTEM" BY RYAN ENGINEERING CORP., FEB. 1995, SHEET 1 of 3.
4. EXCAVATED MATERIAL FOR REVETMENT TO BE TRANSPORTED TO NOURISHMENT AREAS.

DATUM: MLW = 0.0
MHW = 9.4
HTL = 10.8

120 0 120
SCALE IN FEET

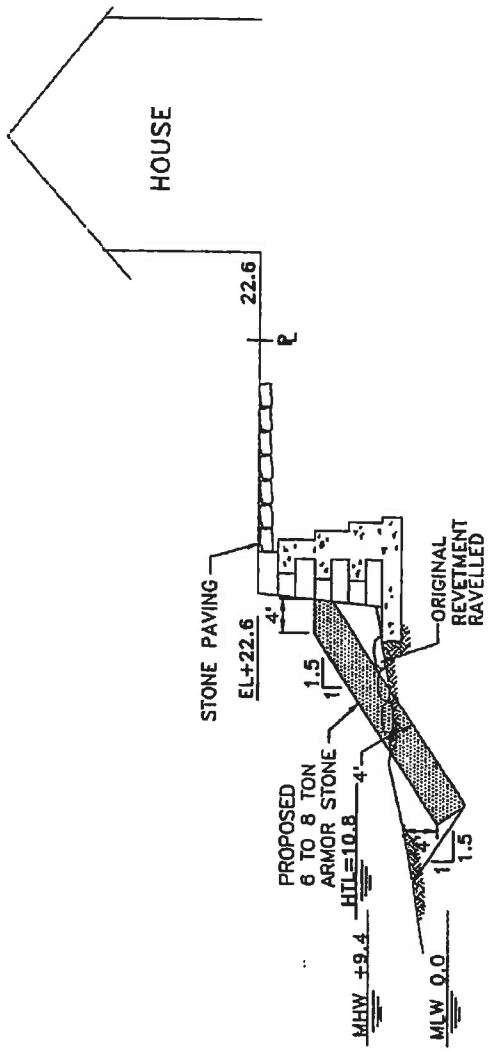
PROPOSED SITE PLAN

AT:SEAWALL BOULEVARD, HULL, MA.
COUNTY: PLYMOUTH

APPLICATION BY:
DEPT. OF ENVIRONMENTAL MGT.
OFFICE OF WATERWAYS
HINGHAM, MASSACHUSETTS

DATE: JUNE 1998 SHEET 3 of 6

NUCCI VINE ASSOCIATES, INC. NEWBURYPORT, MASSACHUSETTS



SECTION A–A

DATUM: MLW = 0.0
MHW = 9.4
HTL = 10.8

20 0 20
SCALE IN FEET

SECTION A–A

AT: SEAWALL BOULEVARD, HULL, MA.
COUNTY: PLYMOUTH

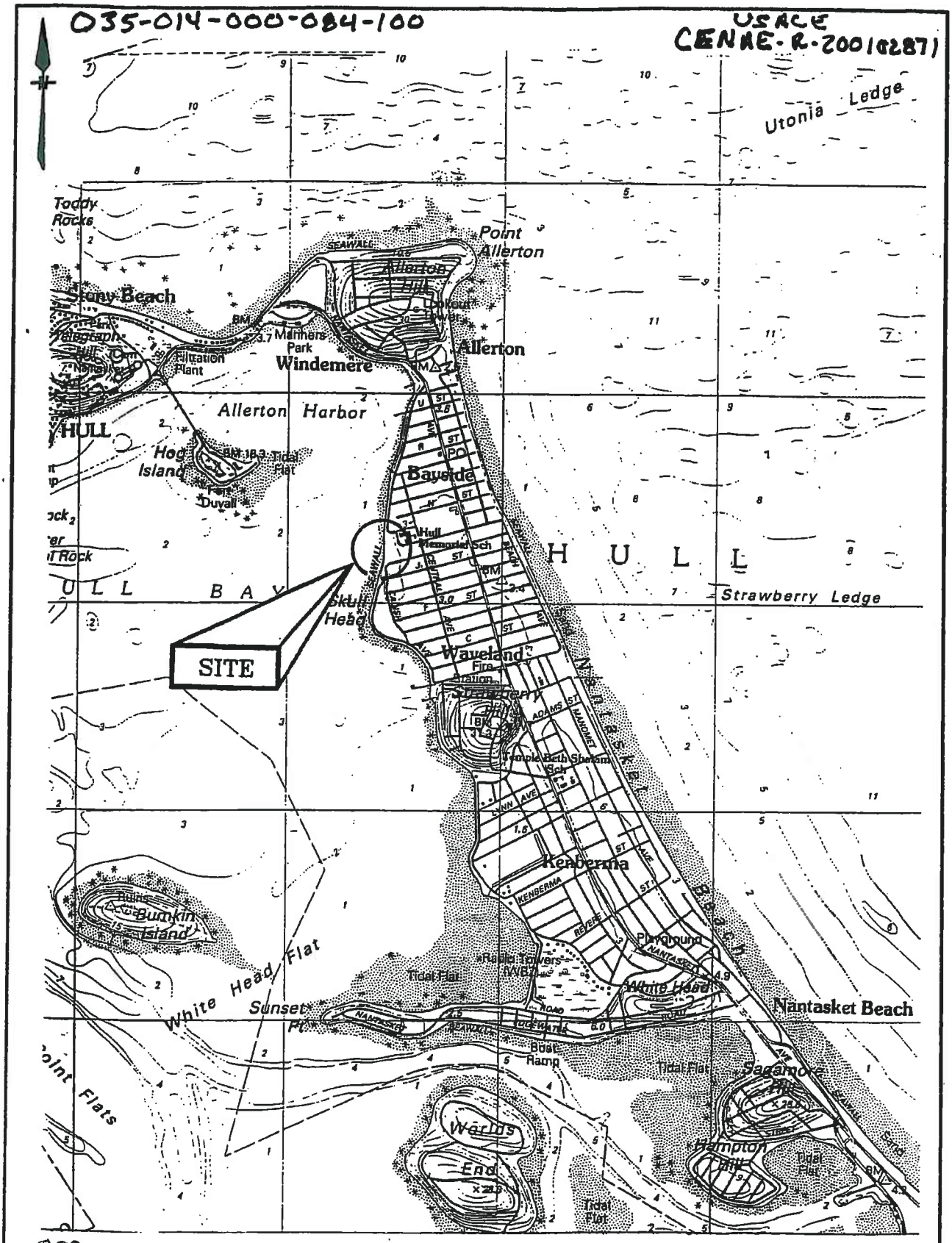
APPLICATION BY:
DEPT. OF ENVIRONMENTAL MGT.
OFFICE OF WATERWAYS
HINGHAM, MASSACHUSETTS

DATE: JUNE 1998 SHEET 4 of 6

NUCCI VINE ASSOCIATES, INC. NEWBURYPORT, MASSACHUSETTS

035-014-000-084-100

USACE
CENAE-R-200102871

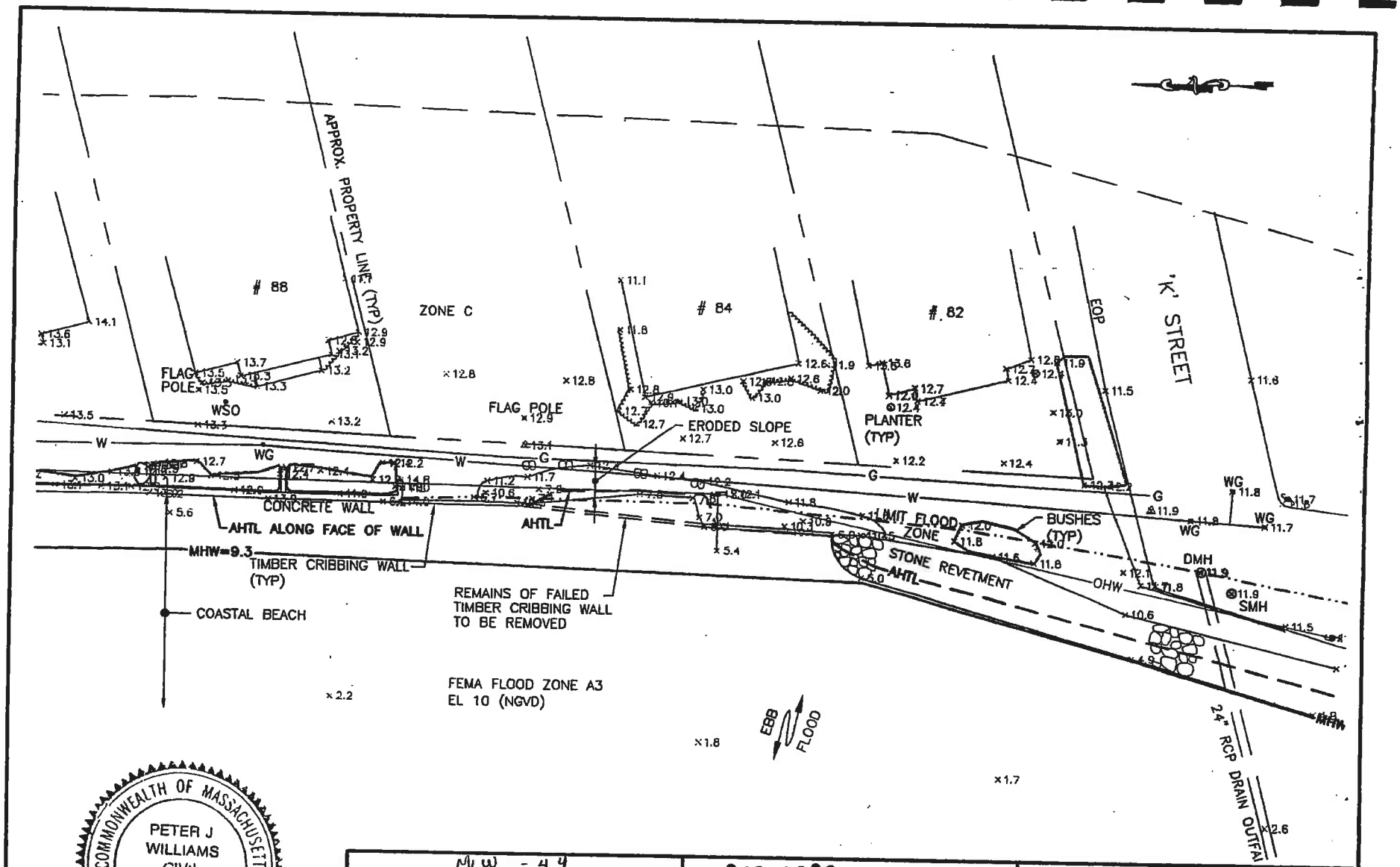


200102871

CADISH AVENUE EMBANKMENT STABILIZATION PROJECT
SHEET 1 OF 5
DEC. 2001

LOCUS PLAN
FIGURE 1

VINE ASSOCIATES, INC. HINGHAM, MASSACHUSETTS



COMMONWEALTH OF MASSACHUSETTS
PETER J WILLIAMS
CIVIL
No. 36227
REGISTERED PROFESSIONAL ENGINEER

MLW - 4.4
DATUM: NGVD = 0.0
MHW = 4.9
AHTL = 7.7

0 30 60
SCALE IN FEET

20102871

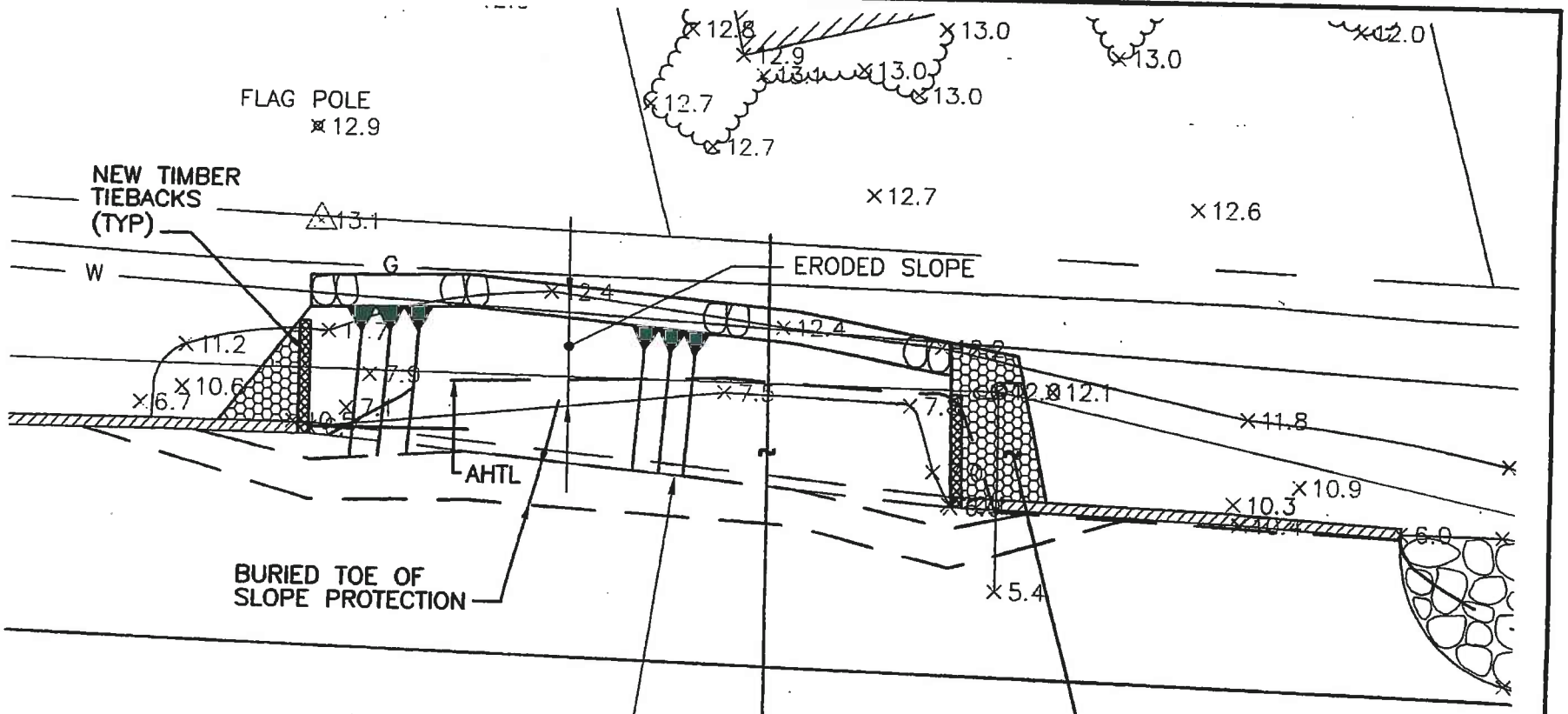
EXISTING CONDITIONS PLAN

AT: CADISH AVENUE
COUNTY: PLYMOUTH

APPLICATION BY:
TOWN OF HULL
253 ATLANTIC AVENUE
HULL, MA.

DATE: DEC. 2001 SHEET 2 OF 5

VINE ASSOCIATES, INC. HINGHAM, MASSACHUSETTS



FEMA FLOOD ZONE A3
EL 10 (NGVD)

EBB
FLOOD

COMMONWEALTH OF MASSACHUSETTS
PETER J. WILLIAMS
CIVIL
No. 36227
REGISTERED PROFESSIONAL ENGINEER

MLW = -4.4
DATUM: NGVD = 0.0
MHW = 4.9
AHTL = 7.7

0 10 20
SCALE IN FEET

200102871

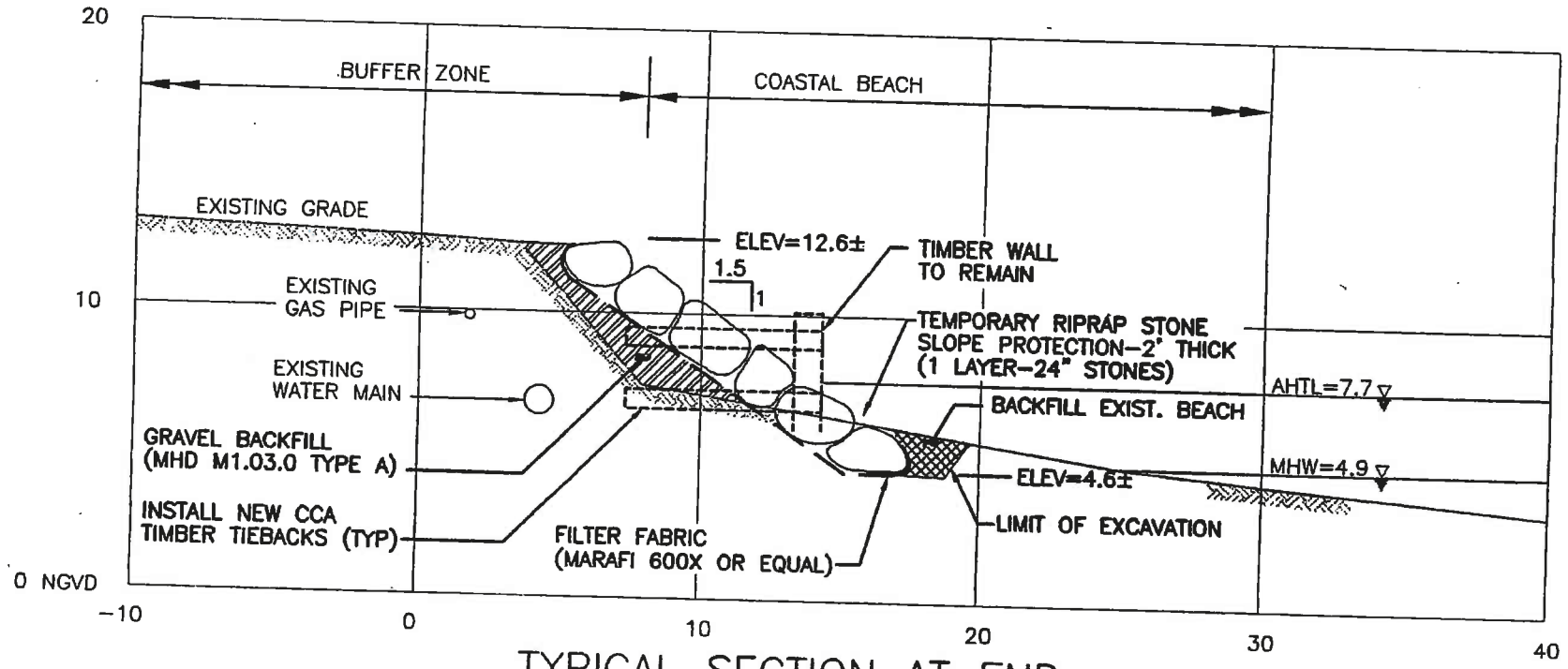
PROPOSED SITE PLAN

AT: CADISH AVENUE
COUNTY: PLYMOUTH

APPLICATION BY:
TOWN OF HULL
253 ATLANTIC AVENUE
HULL, MA.

DATE: DEC. 2001 SHEET 3 OF 5

VINE ASSOCIATES, INC. HINGHAM, MASSACHUSETTS



TYPICAL SECTION AT END

SCALE: 1"=6'

COMMONWEALTH OF MASSACHUSETTS
PETER J. WILLIAMS
CIVIL
No. 36227
REGISTERED PROFESSIONAL ENGINEER

MLW = -4.4

DATUM: NGVD = 0.0
MHW = 4.9
AHTL = 7.7

0 6 12
SCALE IN FEET

200102841

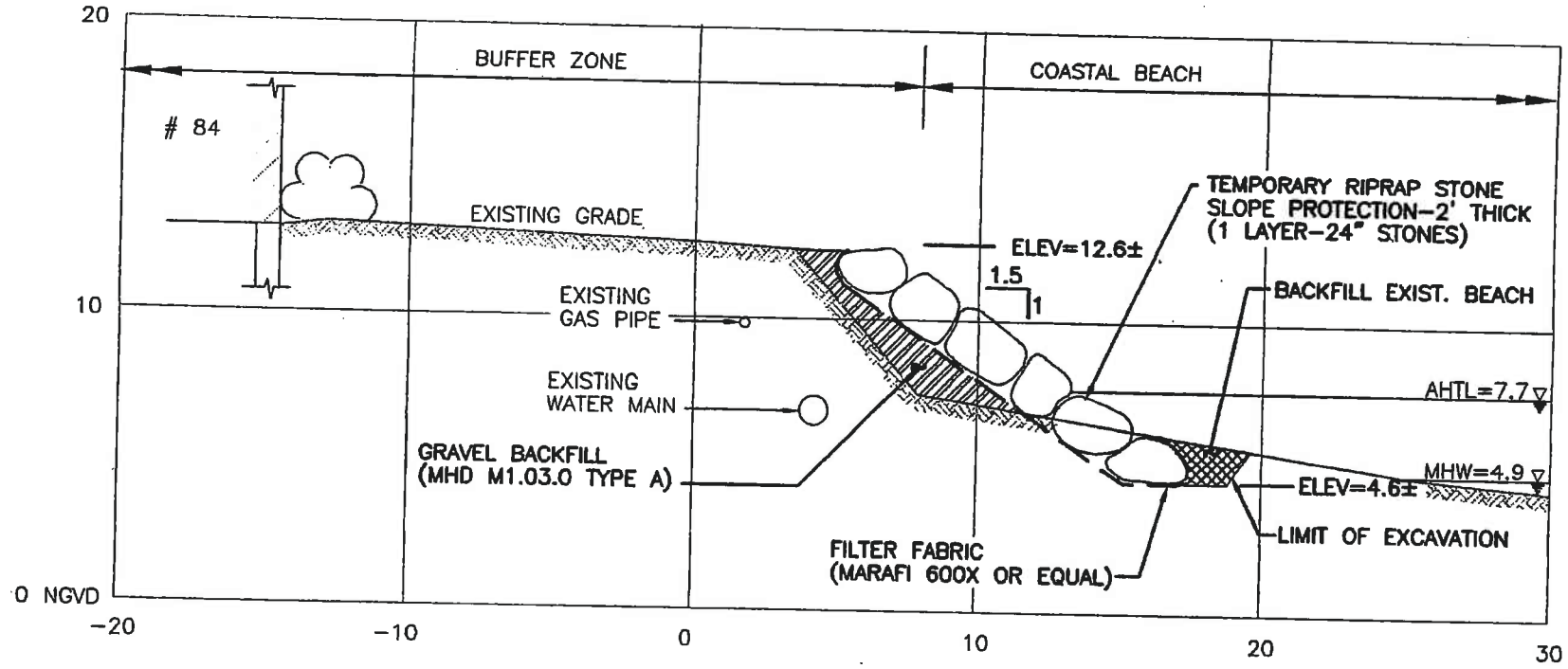
SECTION AT END

AT: CADISH AVENUE
COUNTY: PLYMOUTH

APPLICATION BY:
TOWN OF HULL
253 ATLANTIC AVENUE
HULL, MA.

DATE: DEC. 2001 SHEET 4 OF 5

VINE ASSOCIATES, INC. HINGHAM, MASSACHUSETTS



TYPICAL SECTION

SCALE: 1"=6'

COMMONWEALTH OF MASSACHUSETTS
PETER J. WILLIAMS
CIVIL
No 36227
REGISTERED PROFESSIONAL ENGINEER

DATUM: MLW = -4.4
NGVD = 0.0
MHW = 4.9
AHTL = 7.7

0 6 12
SCALE IN FEET

a00102871

TYPICAL SECTION

AT: CADISH AVENUE
COUNTY: PLYMOUTH

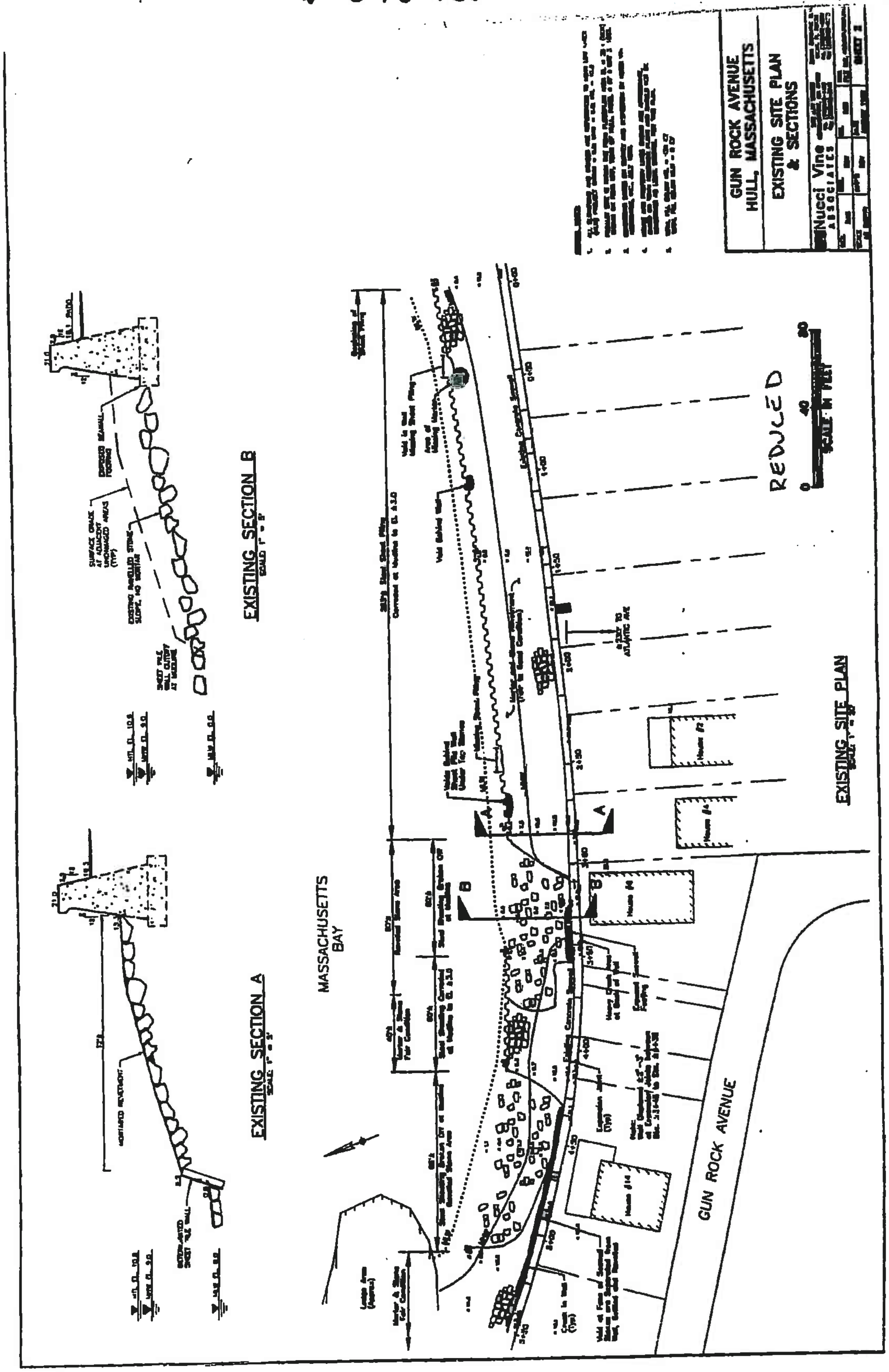
APPLICATION BY:
TOWN OF HULL
253 ATLANTIC AVENUE
HULL, MA.

DATE: DEC. 2001 SHEET 5 OF 5

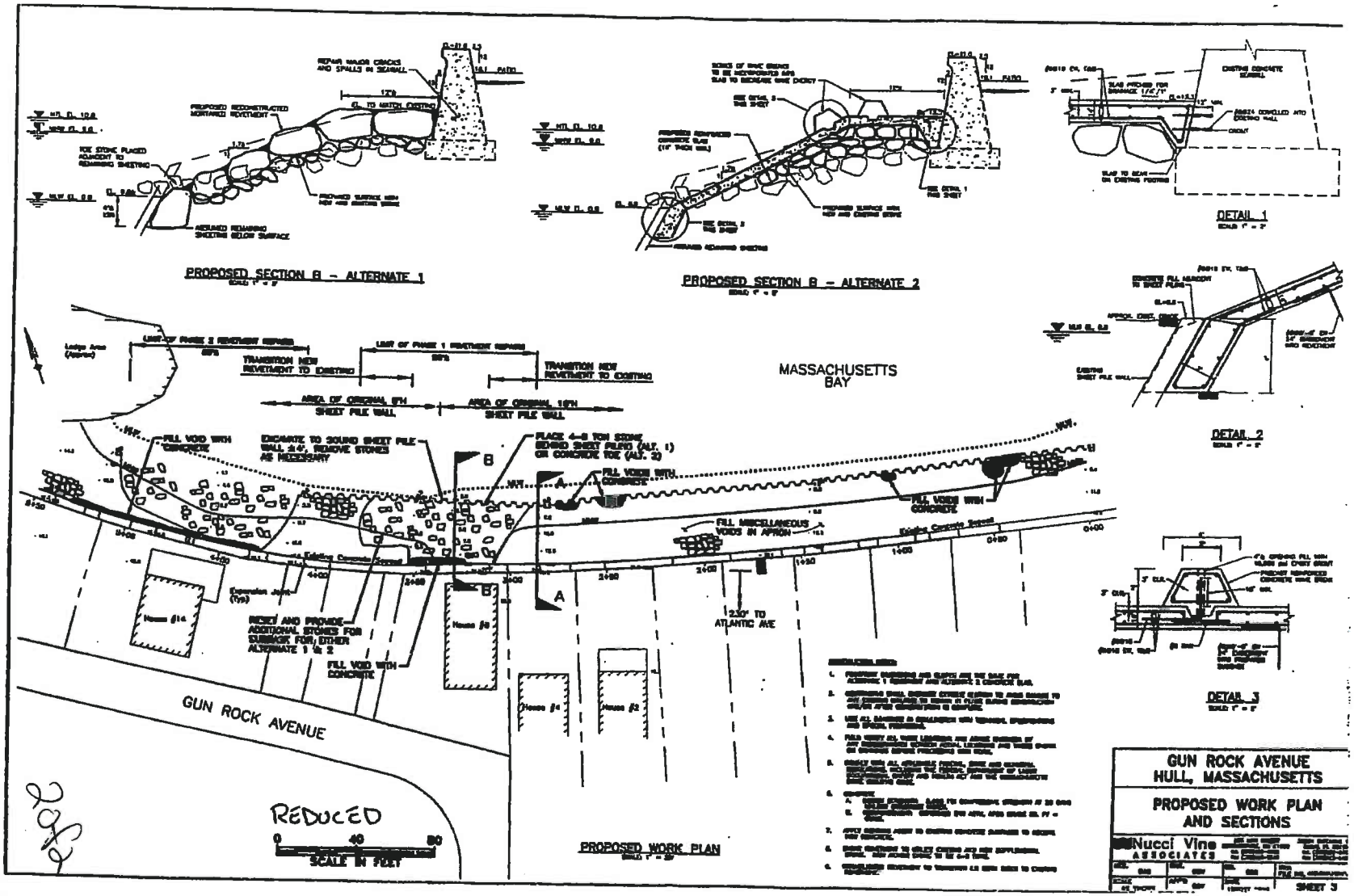
VINE ASSOCIATES, INC. HINGHAM, MASSACHUSETTS

035-052-000-069-100
035-053-000-042-100

USACE
CE NED-OD-R-
19960228 1

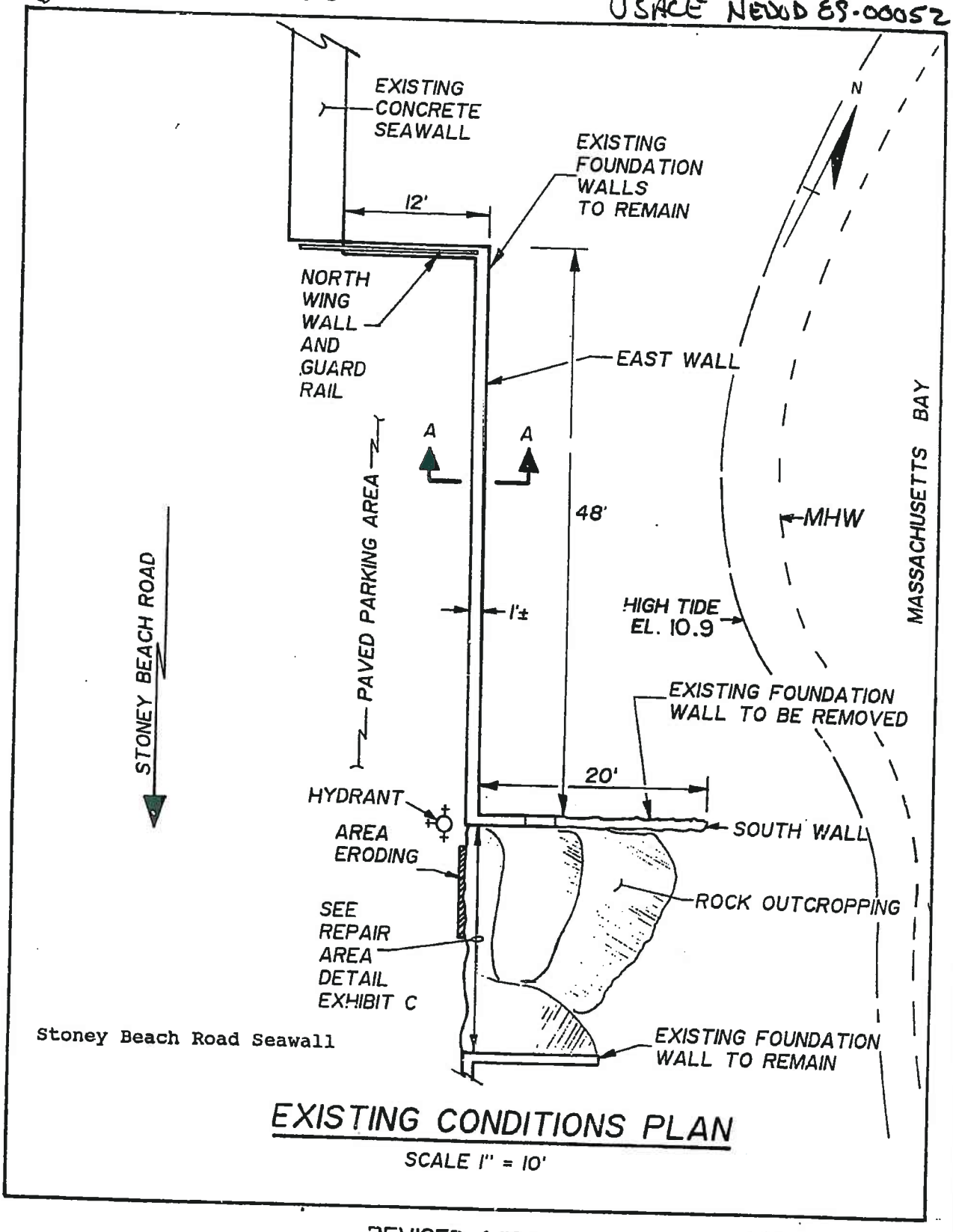


1 of 2


PROPOSED SECTION B – ALTERNATE 1
PROPOSED SECTION B – ALTERNATE 2
DETAIL 1
DETAIL 2
DETAIL 3
MASSACHUSETTS BAY
GUN ROCK AVENUE
PROPOSED WORK PLAN
REDUCED
0 40 80
SCALE IN FEET
GUN ROCK AVENUE
HULL, MASSACHUSETTS
PROPOSED WORK PLAN AND SECTIONS
Nucci Vine ASSOCIATES
SHEET 3

035-051-000-038

USACE NEDOD 89-00052

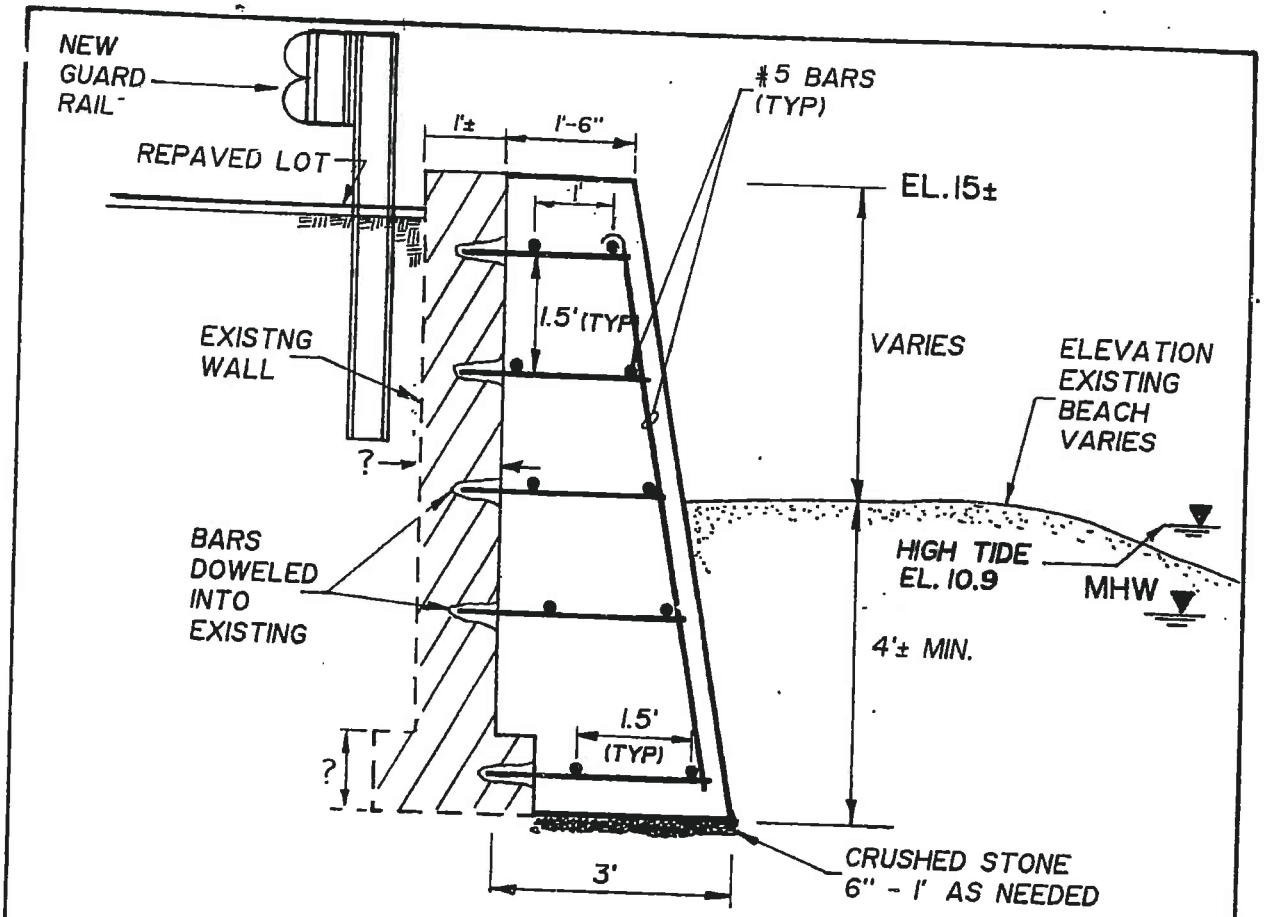


EXISTING CONDITIONS PLAN

SCALE 1" = 10'

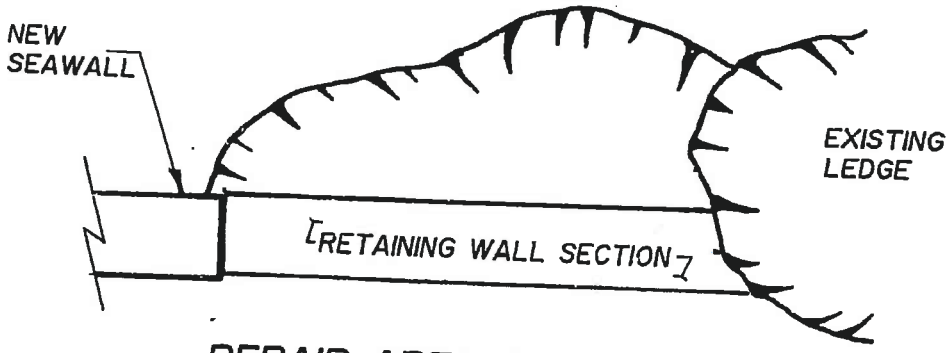
REVISED 4/12/90

EXHIBIT B



REPAIR SECTION A-A

SCALE 1/2" = 1'-0"



REPAIR AREA DETAIL

SCALE 1/4" = 1'-0"

Stoney Beach Road Seawall

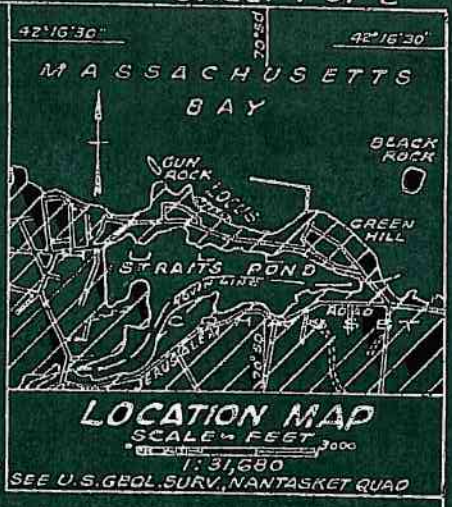
REVISED 4/12/90

EXHIBIT C

035-052.000
-002-100

USACE #
NEDNP
60-268

SHEET 1 OF 2



NOTE

ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO PLANE OF MEAN LOW WATER. MINUS FIGURES SHOW DEPTHS BELOW THE SAME PLANE.
LOCATION OF PROPOSED WORK IS SHOWN IN RED.
SEE SHEET TWO FOR SECTIONS.

PROPOSED BREAKWATER AND SEA WALL VICINITY OF GUN ROCK MASSACHUSETTS BAY HULL - MASS.

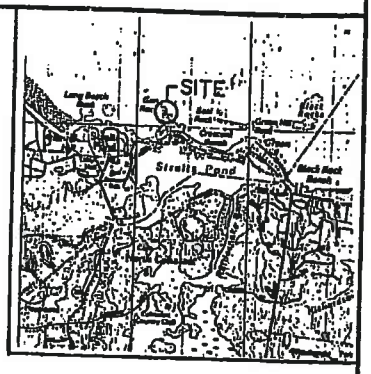
APPLICATION BY
DEPARTMENT of PUBLIC WORKS of MASSACHUSETTS
DIVISION of WATERWAYS
JUNE - 1960

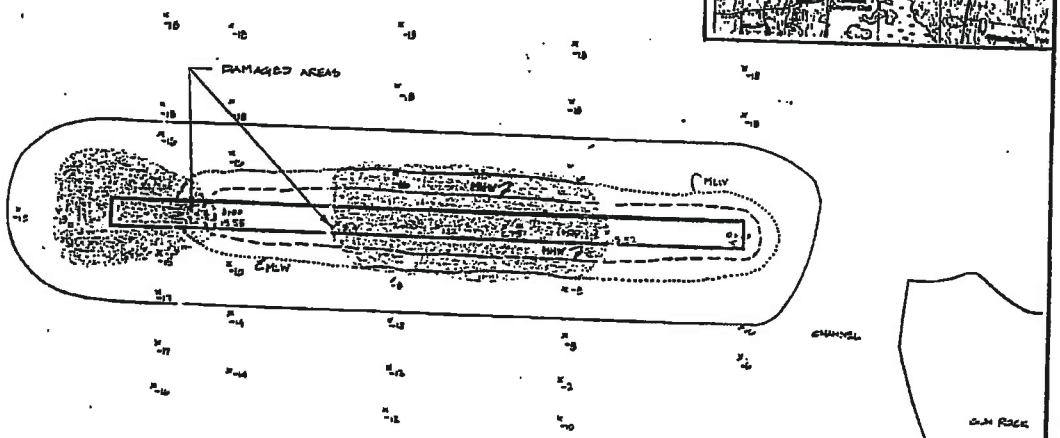
Robert B. MacInnes
Chief Waterways Engineer

ACC. 04124-A

USACE
85-502

035-052-000-002-100





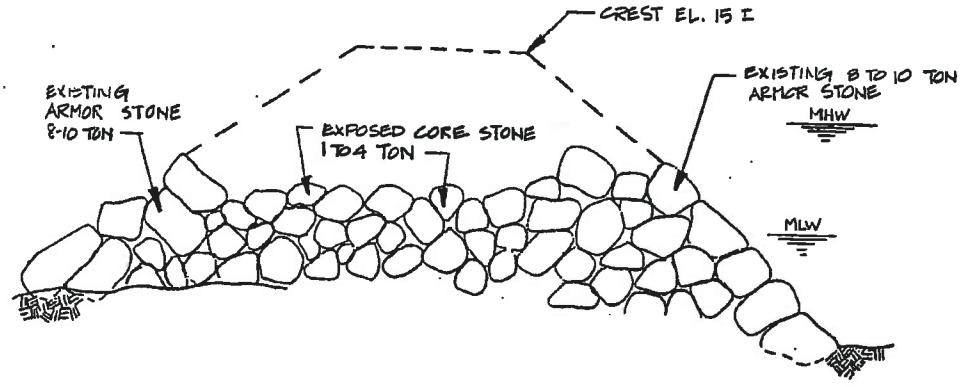
PROPERTY OWNERS:
SEE SHEET 3

SCALE
0 20 40 60 80

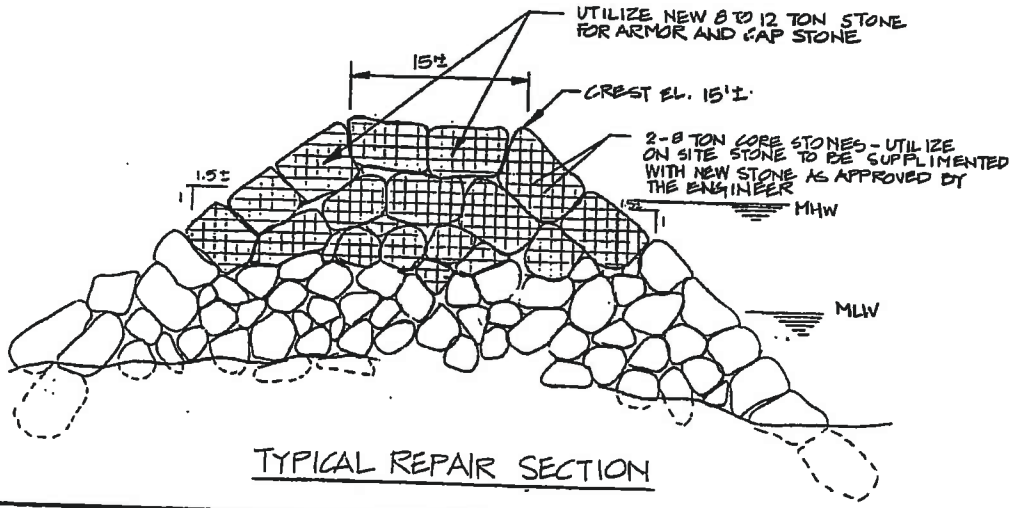
GUN ROCK BREAKWATER

PURPOSE: RESTORE EXISTING BREAKWATER DATUM: MLW	PLAN VIEW NUCCI VINE ASSOCIATES, INC. 253 LOW STREET NEWBURYPORT, MA 01950	PROPOSED BREAKWATER REPAIRS IN: MASSACHUSETTS BAY AT: GUN ROCK BREAKWATER COUNTY OF: PLYMOUTH APPLICANT: TOWN OF HULL

1 OF 3

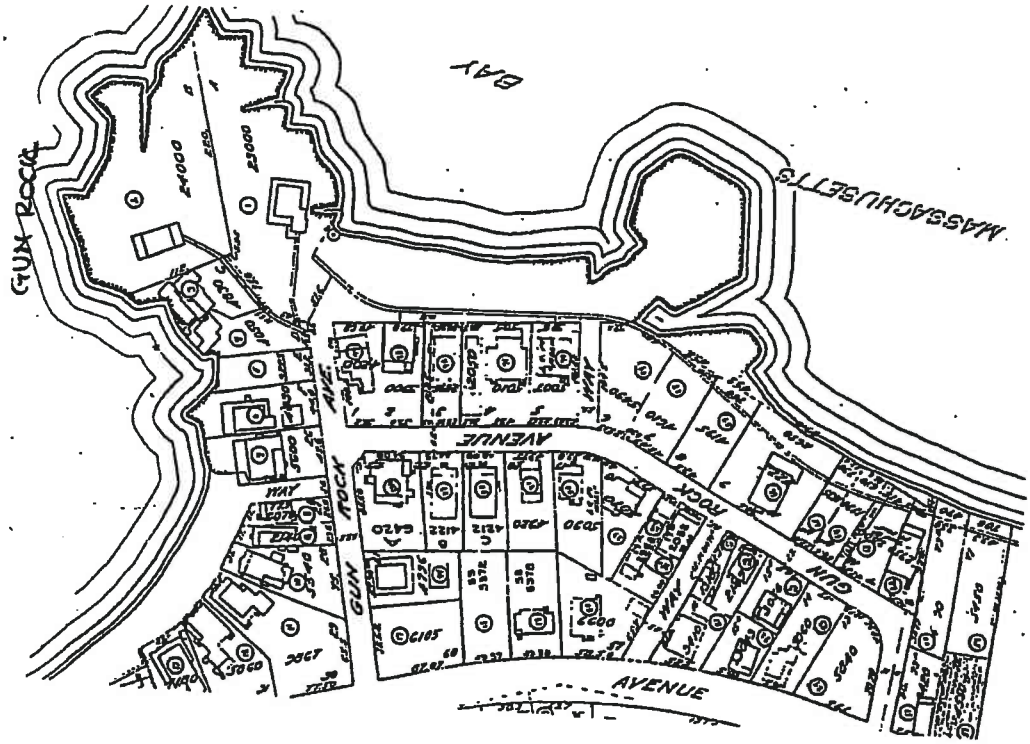


TYPICAL DAMAGED AREA



TYPICAL REPAIR SECTION

PURPOSE: RESTORE EXISTING BREAKWATER	SECTION VIEW NUCCI VINE ASSOCIATES, INC. 253 LOW STREET NEWBURYPORT, MA 01950	PROPOSED BREAKWATER REPAIRS IN: MASSACHUSETTS BAY AT: GUN ROCK BREAKWATER COUNTY OF: PLYMOUTH APPLICANT: TOWN OF HULL



LIST OF ABUTTING PROPERTIES
LOCATION: GUN ROCK

ID	OWNER/LOC	MAILING ADDRESS
52-001	Pitaro Mimie B 9 Damon Park Road	52 Brian Drive Brockton, MA 02401
52-002	Reeve Judith F 7 Damon Park Road	c/o Judith MacKinnon 7 Damon Park Road Hull, MA 02045
52-003	Donahoe Mary Rita 5 Damon Park Road	5 Damon Park Road Hull, MA 02045
52-004	Bohan Thomas P & Della H 3 Damon Park Road	3 Damon Park Road Hull, MA 02045
52-005	Donahoe Mary Rita 5 Damon Park Road	5 Damon Park Roa Hull, MA 02045
52-006	White Mildred K & Joan C 34 Damon Park Road	c/o John White 34 Damon Park Road Hull, MA 02045
52-007	Libertine Angelo 38 Damon Park Road	324 Adams Street Quincy, MA 02169
52-008	Glover Walter J & Mona S Damon Park Road	215 Pond Street S. Weymouth, MA

PURPOSE: RESTORE EXISTING BREAKWATER

DATUM: MLW

PLAN VIEW

NUCCI VINE ASSOCIATES, INC.
253 LOW STREET
NEWBURYPORT, MA 01950

PROPOSED BREAKWATER REPAIRS

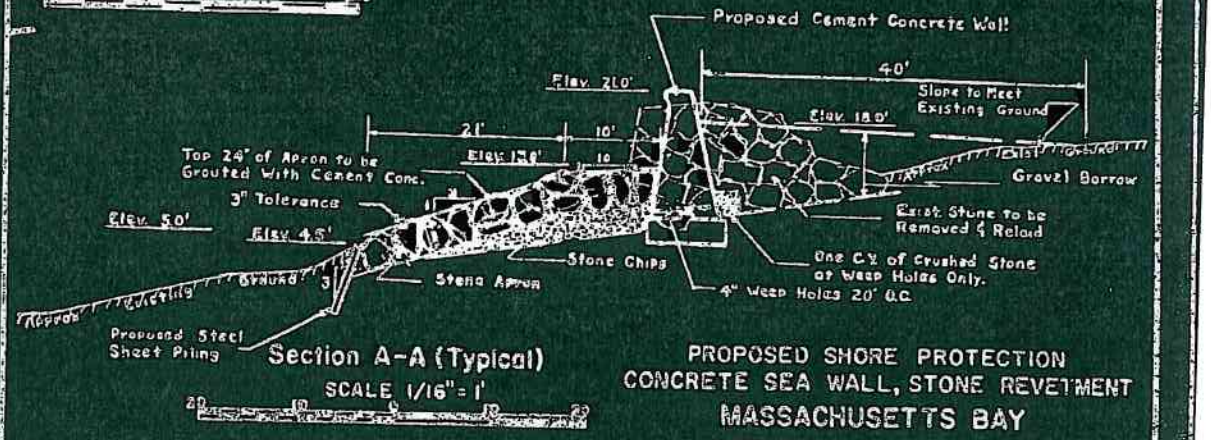
IN: MASSACHUSETTS BAY
AT: GUN ROCK BREAKWATER
COUNTY OF: PLYMOUTH
APPLICANT: TOWN OF HULL

035-053-000-042-100
035-052-000-069-100
035-054-000-042-100

USACE
NEDOD-S
66-182

070 0533

SHEET 1 OF 2



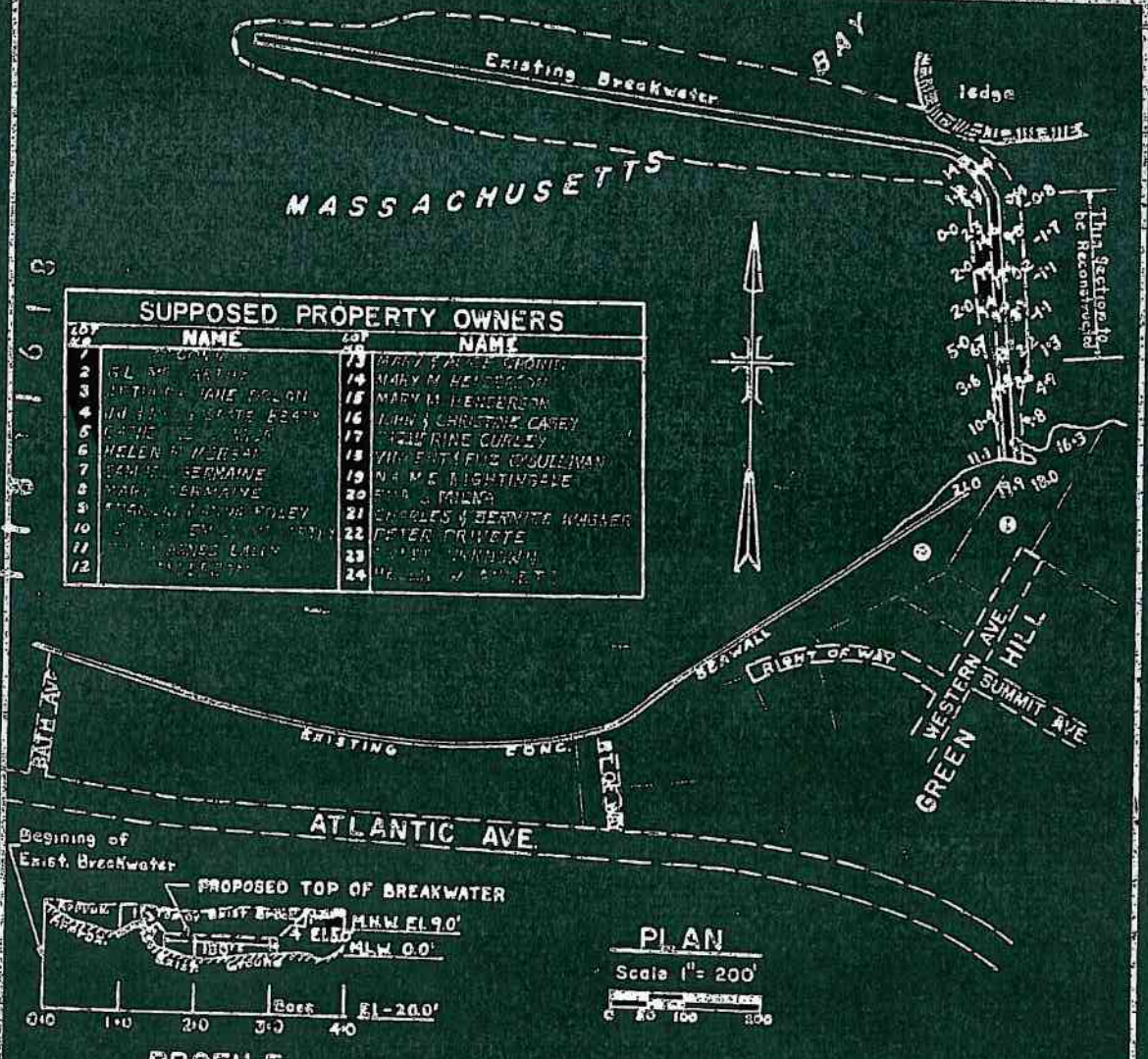
NOTES:
Elevations are in feet and tenths above the plane of Mean Low Water. Minus figures indicate depths below that plane.
Date of survey Nov. 1965
Re: Tr. Bk. 1019, Sd. Bk. 795
Location of proposed work shown in Red

PROPOSED SHORE PROTECTION
CONCRETE SEA WALL, STONE REVETMENT
MASSACHUSETTS BAY
GUN ROCK to GREEN HILL
HULL, MASS.
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1966

ACC. 0454-2

070 0534

SHEET 2 OF 2



SUPPOSED PROPERTY OWNERS

LOT NO.	NAME	LOT NO.	NAME
1		13	
2		14	
3		15	
4		16	
5		17	
6		18	
7		19	
8		20	
9		21	
10		22	
11		23	
12		24	

PROPOSED SHORE PROTECTION
CONCRETE SEA WALL, STONE REVETMENT
MASSACHUSETTS BAY
GUN ROCK to GREEN HILL
HULL, MASS.

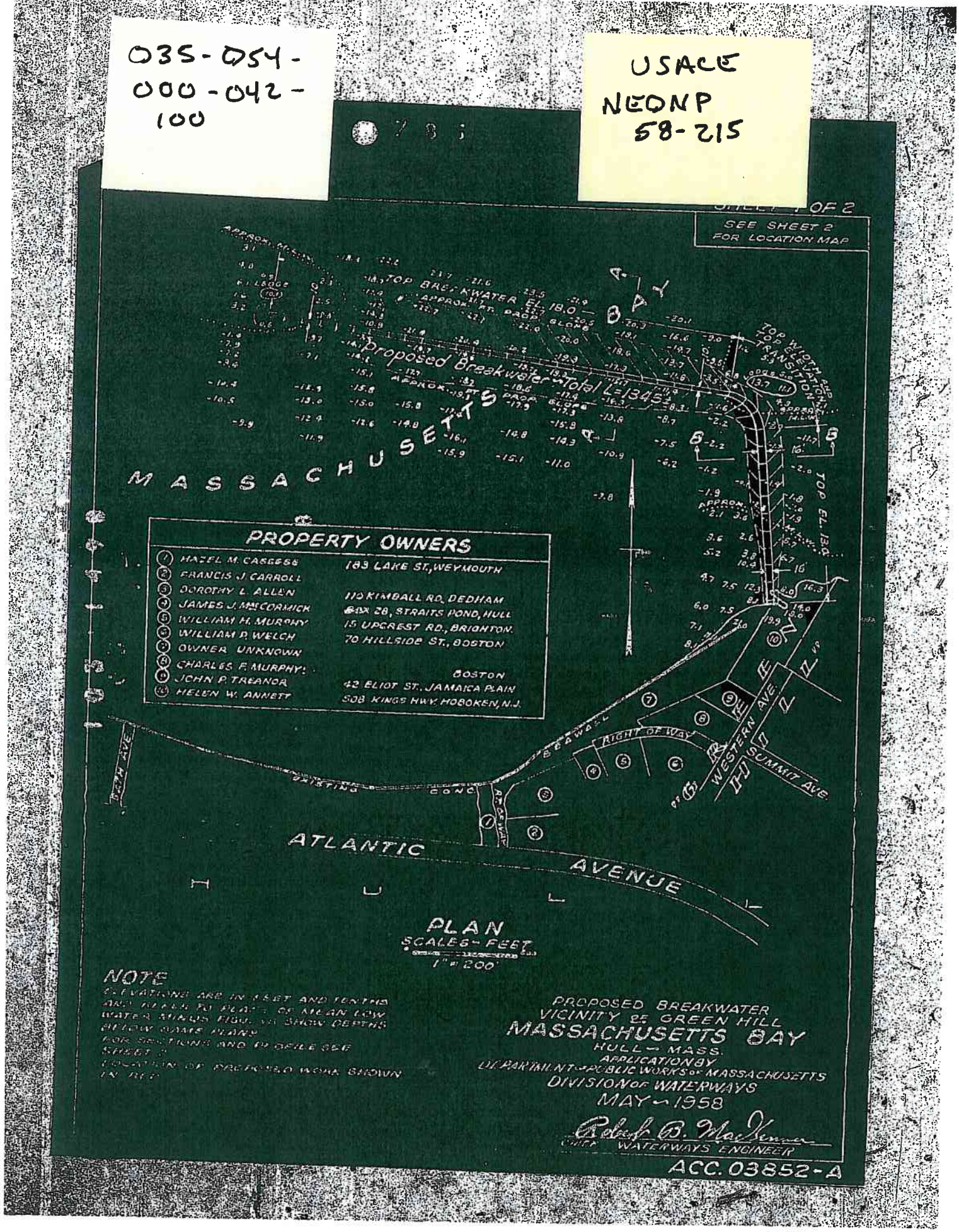
APPLICATION BY
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1976

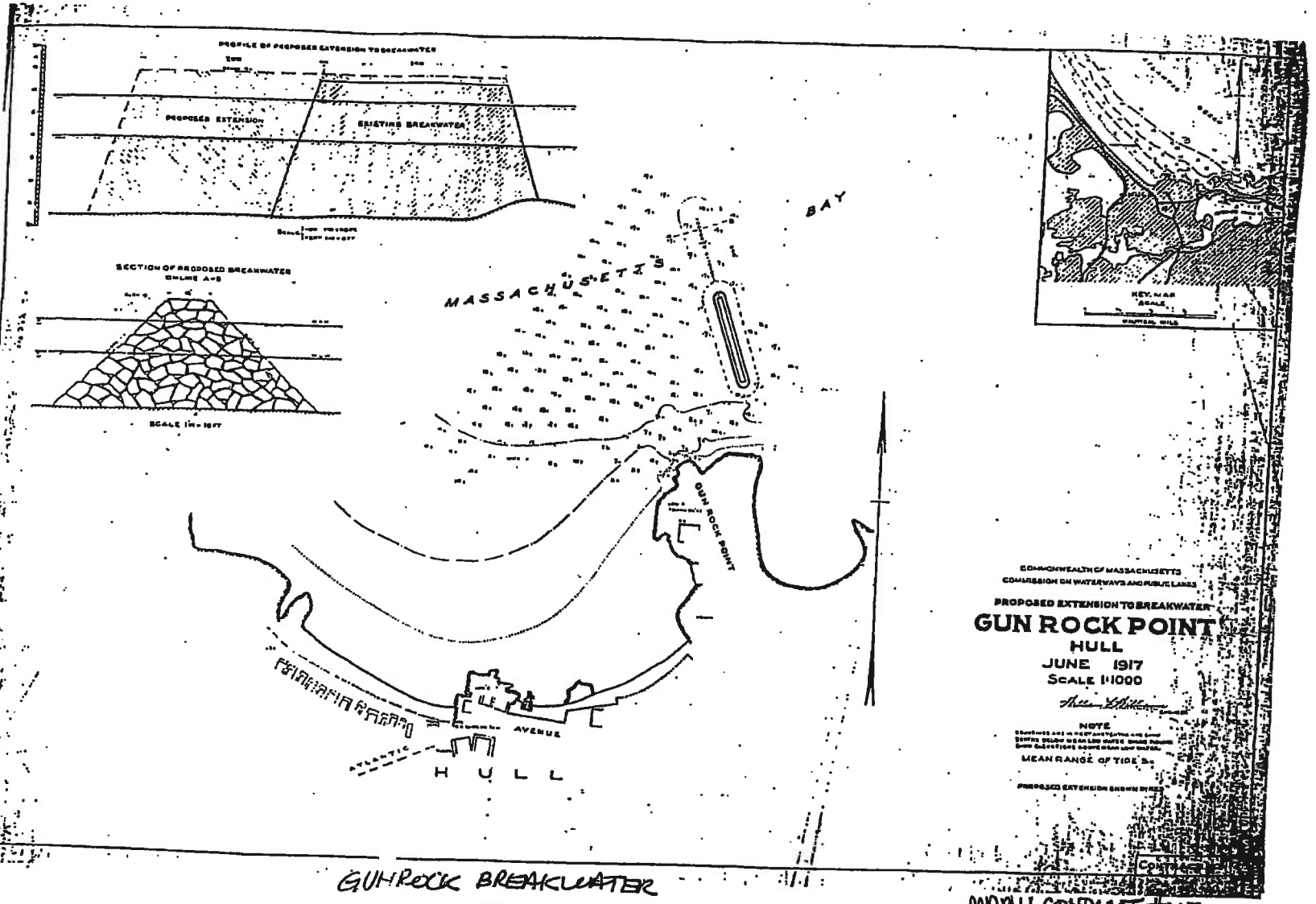
DEPUTY CHIEF ENGINEER FOR WATERWAYS

ACC. 04949-8

035-054-000-042-100

USACE NEONP 58-215





GUNROCK BREAKWATER

035-054-000-042-100

MDPW CONTRACT #17