



Environmental Notification Form

March 13, 2020

Proposed Project

Surfside Crossing
3, 5, 7, & 9 South Shore Road
Map 67, Parcels 336, 336.9, 336.8, & 336.7
Nantucket, Massachusetts

Proponent

Surfside Crossing, LLC
37 Old South Road, Unit #6
Nantucket, MA 02554

LEC Environmental Consultants, Inc.

12 Resnik Road, Suite 1
Plymouth, MA 02360
508-746-9491
508-746-9492 fax
www.lecenvironmental.com



March 13, 2020

Overnight Mail

Kathleen A. Theoharides
Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

**Re: Environmental Notification Form
Surfside Crossing
3, 5, 7, & 9 South Shore Road
Map 67, Parcels 336, 336.9, 336.8, & 336.7
Nantucket, Massachusetts**

[LEC File #CCI\17-274.01]

Dear Secretary Theoharides:

On behalf of the Project Proponent, Surfside Crossing, LLC, LEC Environmental Consultants, Inc. (LEC) is filing this Environmental Notification Form (ENF) for a proposed residential development under the provisions of M.G.L. c. 40B, s. 20-23, referred to as “Surfside Crossing”, located off South Shore Road on Nantucket. The Massachusetts Natural Heritage and Endangered Species Program (NHESP) has determined that the project will result in a “take” of the Coastal Heathland Cutworm (*Abagrotis nefascia*), a species of “Special Concern”, protected under the *Massachusetts Endangered Species Act* (MESA, M.G.L. c. 131A) and its implementing *Regulations* (321 CMR 10.00).

Considering NHESP’s determination and disturbance of greater than two acres within mapped Priority Habitat, including 6.48± acres of impervious area, LEC is filing this ENF for the Rare Species threshold at 301 11.03(2)(b)2, Land threshold (301 CMR 11.03(1)(b)2.), and Transportation-Traffic Generation (301 CMR 11.03(6)(b)14.), of the MEPA Regulations. The Project Proponent is seeking a Comprehensive Permit from the Department of Housing and Community Development Housing Appeals Committee.

Thank you for consideration of this ENF. If you should have any questions or require additional information, please do not hesitate to contact me at 508-746-9491 or bmadden@lecenvironmental.com.

Sincerely,

LEC Environmental Consultants, Inc.

Brian T. Madden
Wildlife Scientist

cc: Surfside Crossing, LLC; Richard A. Nysten, Jr., Esq.; Paul J. Haverty, Esq.; Bracken Engineering; MDM; Distribution List

Environmental Notification Form

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Aerial Orthophoto

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NHESP Map

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NHESP letter, Dated October 19, 2018

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MHC letter, Dated August 23, 2018

Attachment H

“Surfside Crossing” a Proposed 40B Development, Prepared by Bracken Engineering, Inc., Dated February 15, 2018 (Original)

Attachment I

“Surfside Crossing” a Proposed 40B Development, Prepared by Bracken Engineering, Inc., Last Revised March 19, 2019 (100 Unit Alternative)

Attachment J

Overall Site Development Plan, Prepared by Bracken Engineering, Inc., Dated April 10, 2019 & *Landscape Plan*, Prepared by Weinmayr/Jay Associates, Dated April 10, 2019 (92 Unit Alternative)

Attachment K

“Surfside Crossing” a Proposed 40B Development, Prepared by Bracken Engineering, Inc., Last Revised February 28, 2020 (Preferred Alternative)

Attachment L

Water Resource Protection Map

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Massachusetts Environmental Policy Act (MEPA) Office

Environmental Notification Form

For Office Use Only

EEA#: _____

MEPA Analyst: _____

The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Surfside Crossing		
Street Address: 3,5,7 & 9 South Shore Road		
Municipality: Nantucket	Watershed: Nantucket Islands	
Universal Transverse Mercator Coordinates:	Latitude: N 42.27262 Longitude: W 70.17603	
Estimated commencement date: unknown	Estimated completion date: Unknown	
Project Type: Residential (condominiums)	Status of project design: 75% complete	
Proponent: Surfside Crossing, LLC		
Street Address: 37 Old South Road, Unit #6		
Municipality: Nantucket	State: MA	Zip Code: 02554
Name of Contact Person: Brian Madden		
Firm/Agency: LEC Environmental	Street Address: 12 Resnik Road, Unit 1	
Municipality: Plymouth	State: MA	Zip Code: 02360
Phone: 508-746-9491	Fax: 508-746-9492	E-mail: bmadden@lecenvironmental.com

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
 Yes No

If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting: **N/A**

a Single EIR? (see 301 CMR 11.06(8)) Yes No
a Special Review Procedure? (see 301CMR 11.09) Yes No
a Waiver of mandatory EIR? (see 301 CMR 11.11) Yes No
a Phase I Waiver? (see 301 CMR 11.11) Yes No
(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?
Rare Species & Land (Creation of five or more acres of impervious area) & Transportation
(1,000+ new adt on roadways and 150+ new parking spaces at a single location)

Which State Agency Permits will the project require?
MESA Conservation and Management Permit & DHCD HAC—Comprehensive Permit

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres: **N/A**

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	13.56±		
New acres of land altered		12.27±	
Acres of impervious area	0	6.48±	6.48±
Square feet of new bordering vegetated wetlands alteration		0	
Square feet of new other wetland alteration		0	
Acres of new non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage	0	2.76±	2.76±
Number of housing units	0	156	156
Maximum height (feet)	0	30'2"	30'2"
TRANSPORTATION			
Vehicle trips per day	0	1,142±	1,142±
Parking spaces	0	299	299
WASTEWATER			
Water Use (Gallons per day)	0	31,330	31,330
Water withdrawal (GPD)	0	31,330	31,330
Wastewater generation/treatment (GPD)	0	31,330	31,330
Length of water mains (miles)	0	0	0
Length of sewer mains (miles)	0	0	0
<p>Has this project been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No</p>			
<p>Has any project on this site been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No</p>			

GENERAL PROJECT INFORMATION – all proponents must fill out this section

PROJECT DESCRIPTION:

Describe the existing conditions and land uses on the project site:

See attached

Describe the proposed project and its programmatic and physical elements:

See attached

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

See attached

Summarize the mitigation measures proposed to offset the impacts of the preferred alternative:

See attached

If the project is proposed to be constructed in phases, please describe each phase:

Infrastructure (roadways, stormwater management, and utilities) will be commenced first, followed by condominium construction, appurtenances, and ultimately site landscaping.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN:

Is the project within or adjacent to an Area of Critical Environmental Concern?

- Yes (Specify _____)
 No

if yes, does the ACEC have an approved Resource Management Plan? ___ Yes ___ No;

If yes, describe how the project complies with this plan. _____

Will there be stormwater runoff or discharge to the designated ACEC? ___ Yes ___ No;

If yes, describe and assess the potential impacts of such stormwater runoff/discharge to the designated ACEC.

RARE SPECIES:

Does the project site include Estimated and/or Priority Habitat of State-Listed Rare Species? (see http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/priority_habitat/priority_habitat_home.htm)

- Yes (Specify: **Priority Habitat 8**) No

HISTORICAL /ARCHAEOLOGICAL RESOURCES:

Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

- Yes (Specify: **Nantucket Island is listed in the State and National Registers of Historic Places**) No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources? Yes (Specify _____) No

WATER RESOURCES:

Is there an Outstanding Resource Water (ORW) on or within a half-mile radius of the project site? ___ Yes No; if yes, identify the ORW and its location.

(NOTE: Outstanding Resource Waters include Class A public water supplies, their tributaries, and bordering wetlands; active and inactive reservoirs approved by MassDEP; certain waters within Areas of Critical Environmental Concern, and certified vernal pools. Outstanding resource waters are listed in the Surface Water Quality Standards, 314 CMR 4.00.)

Are there any impaired water bodies on or within a half-mile radius of the project site? Yes ___ No; if yes, identify the water body and pollutant(s) causing the impairment: **Miacomet Pond (Nitrogen, Phosphorous)**
Is the project within a medium or high stress basin, as established by the Massachusetts Water Resources Commission? ___ Yes No

STORMWATER MANAGEMENT:

Generally describe the project's stormwater impacts and measures that the project will take to comply with the standards found in MassDEP's Stormwater Management Regulations:

Runoff from impervious paved surfaces will be handled via a treatment train of deep sump & hooded catch basins and oil-grit separators prior to discharge to subsurface infiltration systems to achieve the required TSS removal rates. Roof runoff from the condominium buildings and community building will be discharged into individual on-site subsurface infiltration systems. All runoff will be treated and pollution prevention measures shall be incorporated into the design in accordance with Best Management Practices determined by MassDEP's Stormwater Management Handbook.

MASSACHUSETTS CONTINGENCY PLAN:

Has the project site been, or is it currently being, regulated under M.G.L.c.21E or the Massachusetts Contingency Plan? Yes ___ No ___ ; if yes, please describe the current status of the site (including Release Tracking Number (RTN), cleanup phase, and Response Action Outcome classification): **NO**

Is there an Activity and Use Limitation (AUL) on any portion of the project site? Yes ___ No ; if yes, describe which portion of the site and how the project will be consistent with the AUL: _____.

Are you aware of any Reportable Conditions at the property that have not yet been assigned an RTN? Yes ___ No ; if yes, please describe: _____

SOLID AND HAZARDOUS WASTE:

If the project will generate solid waste during demolition or construction, describe alternatives considered for re-use, recycling, and disposal of, e.g., asphalt, brick, concrete, gypsum, metal, wood: **NO**

(NOTE: Asphalt pavement, brick, concrete and metal are banned from disposal at Massachusetts landfills and waste combustion facilities and wood is banned from disposal at Massachusetts landfills. See 310 CMR 19.017 for the complete list of banned materials.)

Will your project disturb asbestos containing materials? Yes ___ No ; if yes, please consult state asbestos requirements at <http://mass.gov/MassDEP/air/asbhom01.htm>
Describe anti-idling and other measures to limit emissions from construction equipment: \ **Construction contractors shall adhere to all applicable regulations regarding control of construction vehicle emissions. Measures may include diesel construction equipment fitted with after-engine emissions controls, use of ultra-low sulfur diesel fuel, and/or minimization of idling time.**

DESIGNATED WILD AND SCENIC RIVER:

Is this project site located wholly or partially within a defined river corridor of a federally designated Wild and Scenic River or a state designated Scenic River? Yes ___ No ; if yes, specify name of river and designation:

If yes, does the project have the potential to impact any of the "outstandingly remarkable" resources of a federally Wild and Scenic River or the stated purpose of a state designated Scenic River?

Yes ___ No ___ ; if yes, specify name of river and designation: _____;

if yes, will the project will result in any impacts to any of the designated "outstandingly remarkable" resources of the Wild and Scenic River or the stated purposes of a Scenic River.

Yes ___ No ___ ;

if yes, describe the potential impacts to one or more of the "outstandingly remarkable" resources or stated purposes and mitigation measures proposed.

ATTACHMENTS:

1. List of all attachments to this document.
2. U.S.G.S. map (good quality color copy, 8-½ x 11 inches or larger, at a scale of 1:24,000) indicating the project location and boundaries.
3. Plan, at an appropriate scale, of existing conditions on the project site and its immediate environs, showing all known structures, roadways and parking lots, railroad rights-of-way, wetlands and water bodies, wooded areas, farmland, steep slopes, public open spaces, and major utilities.
4. Plan, at an appropriate scale, depicting environmental constraints on or adjacent to the project site such as Priority and/or Estimated Habitat of state-listed rare species, Areas of Critical Environmental Concern, Chapter 91 jurisdictional areas, Article 97 lands, wetland resource area delineations, water supply protection areas, and historic resources and/or districts.
5. Plan, at an appropriate scale, of proposed conditions upon completion of project (if construction of the project is proposed to be phased, there should be a site plan showing conditions upon the completion of each phase).
6. List of all agencies and persons to whom the proponent circulated the ENF, in accordance with 301 CMR 11.16(2).
7. List of municipal and federal permits and reviews required by the project, as applicable.

State Permits

- **MESA Conservation and Management Permit — MA Division of Fisheries and Wildlife**
- **Comprehensive Permit — Department of Housing and Community Development Housing Appeals Committee**

LAND SECTION – all proponents must fill out this section

I. Thresholds / Permits

- A. Does the project meet or exceed any review thresholds related to **land** (see 301 CMR 11.03(1))
___ Yes No; if yes, specify each threshold:

II. Impacts and Permits

- A. Describe, in acres, the current and proposed character of the project site, as follows:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Footprint of buildings	0	2.76±	2.76±
Internal roadways & Parking and other paved areas	0	3.72±	3.72±
Other altered areas*	0.16±	5.79±	5.79±
Undeveloped areas	13.4		
Total: Project Site Acreage	13.56		

(*Other altered areas including lawn/landscaped conditions, etc.)

- B. Has any part of the project site been in active agricultural use in the last five years?
___ Yes No; if yes, how many acres of land in agricultural use (with prime state or locally important agricultural soils) will be converted to nonagricultural use?
- C. Is any part of the project site currently or proposed to be in active forestry use?
___ Yes No; if yes, please describe current and proposed forestry activities and indicate whether any part of the site is the subject of a forest management plan approved by the Department of Conservation and Recreation:
- D. Does any part of the project involve conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97? ___ Yes No; if yes, describe:
- E. Is any part of the project site currently subject to a conservation restriction, preservation restriction, agricultural preservation restriction or watershed preservation restriction? ___ Yes No; if yes, does the project involve the release or modification of such restriction?
___ Yes ___ No; if yes, describe:
- F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A? ___ Yes No; if yes, describe:
- G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B? Yes ___ No ; if yes, describe:

III. Consistency

- A. Identify the current municipal comprehensive land use plan
Title: **Town of Nantucket Master Plan** Date **2009**
- B. Describe the project's consistency with that plan with regard to:
- 1) economic development **N/A**
 - 2) adequacy of infrastructure **municipal sewer and water**
 - 3) open space impacts **N/A**
 - 4) compatibility with adjacent land uses **The site is mapped as LUG-2 (residential); development serves to further enhance the ability of Nantucket residents to live and work on the island.**
- C. Identify the current Regional Policy Plan of the applicable Regional Planning Agency (RPA)
RPA: **Nantucket Planning and Economic Development Commission (NP&EDC)**

- D. Describe the project's consistency with that plan with regard to:
- 1) economic development **N/A**
 - 2) adequacy of infrastructure **municipal sewer and water**
 - 3) open space impacts **N/A**

RARE SPECIES SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **rare species or habitat** (see 301 CMR 11.03(2))? Yes ___ No; if yes, specify, in quantitative terms:

301 CMR 11.03(2)(b)2. Greater than 2 acres of disturbance of Priority Habitat and "take" of Coastal Heathland Cutworm

(NOTE: If you are uncertain, it is recommended that you consult with the Natural Heritage and Endangered Species Program (NHESP) prior to submitting the ENF.)

- B. Does the project require any state permits related to **rare species or habitat**? Yes ___ No
- C. Does the project site fall within mapped rare species habitat (Priority or Estimated Habitat?) in the current Massachusetts Natural Heritage Atlas (attach relevant page)? Yes ___ No.
- D. If you answered "No" to all questions A, B and C, proceed to the **Wetlands, Waterways, and Tidelands Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Rare Species section below.

II. Impacts and Permits

A. Does the project site fall within Priority or Estimated Habitat in the current Massachusetts Natural Heritage Atlas (attach relevant page)? Yes ___ No. If yes,

1. Have you consulted with the Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP)? Yes ___ No; if yes, have you received a determination as to whether the project will result in the "take" of a rare species? Yes ___ No; if yes, attach the letter of determination to this submission. **Attachment F**

2. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? Yes ___ No; if yes, provide a summary of proposed measures to minimize and mitigate rare species impacts.
See attached

3. Which rare species are known to occur within the Priority or Estimated Habitat?
Coastal Heathland Cutworm

4. Has the site been surveyed for rare species in accordance with the Massachusetts Endangered Species Act? Yes ___ No

4. If your project is within Estimated Habitat, have you filed a Notice of Intent or received an Order of Conditions for this project? ___ Yes No; if yes, did you send a copy of the Notice of Intent to the Natural Heritage and Endangered Species Program, in accordance with the Wetlands Protection Act regulations? ___ Yes ___ No

B. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? Yes ___ No; if yes, provide a summary of proposed measures to minimize and mitigate rare species impacts.
See attached

WETLANDS, WATERWAYS, AND TIDELANDS SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wetlands, waterways, and tidelands** (see 301 CMR 11.03(3))? ___ Yes No; if yes, specify, in quantitative terms:

B. Does the project require any state permits (or a local Order of Conditions) related to **wetlands, waterways, or tidelands**? ___ Yes No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Water Supply Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wetlands, Waterways, and Tidelands Section below.

II. Wetlands Impacts and Permits

A. Does the project require a new or amended Order of Conditions under the Wetlands Protection Act (M.G.L. c.131A)? ___ Yes ___ No; if yes, has a Notice of Intent been filed? ___ Yes ___ No; if yes, list the date and MassDEP file number: _____; if yes, has a local Order of Conditions been issued? ___ Yes ___ No; Was the Order of Conditions appealed? ___ Yes ___ No. Will the project require a Variance from the Wetlands regulations? ___ Yes ___ No.

B. Describe any proposed permanent or temporary impacts to wetland resource areas located on the project site:

C. Estimate the extent and type of impact that the project will have on wetland resources, and indicate whether the impacts are temporary or permanent:

<u>Coastal Wetlands</u>	<u>Area (square feet) or Length (linear feet)</u>	<u>Temporary or Permanent Impact?</u>
Land Under the Ocean	_____	_____
Designated Port Areas	_____	_____
Coastal Beaches	_____	_____
Coastal Dunes	_____	_____
Barrier Beaches	_____	_____
Coastal Banks	_____	_____
Rocky Intertidal Shores	_____	_____
Salt Marshes	_____	_____
Land Under Salt Ponds	_____	_____
Land Containing Shellfish	_____	_____
Fish Runs	_____	_____
Land Subject to Coastal Storm Flowage	_____	_____
 <u>Inland Wetlands</u>		
Bank (If)	_____	_____
Bordering Vegetated Wetlands	_____	_____
Isolated Vegetated Wetlands	_____	_____
Land under Water	_____	_____
Isolated Land Subject to Flooding	_____	_____
Bordering Land Subject to Flooding	_____	_____
Riverfront Area	_____	_____

D. Is any part of the project:

1. proposed as a **limited project**? ___ Yes ___ No; if yes, what is the area (in sf)? _____
2. the construction or alteration of a **dam**? ___ Yes ___ No; if yes, describe:
3. fill or structure in a **velocity zone** or **regulatory floodway**? ___ Yes ___ No

4. dredging or disposal of dredged material? ___ Yes ___ No; if yes, describe the volume of dredged material and the proposed disposal site:
5. a discharge to an **Outstanding Resource Water (ORW)** or an **Area of Critical Environmental Concern (ACEC)**? ___ Yes ___ No
6. subject to a wetlands restriction order? ___ Yes ___ No; if yes, identify the area (in sf):
7. located in buffer zones? ___ Yes ___ No; if yes, how much (in sf) _____

E. Will the project:

1. be subject to a local wetlands ordinance or bylaw? ___ Yes ___ No
2. alter any federally-protected wetlands not regulated under state law? ___ Yes ___ No; if yes, what is the area (sf)?

III. Waterways and Tidelands Impacts and Permits

A. Does the project site contain waterways or tidelands (including filled former tidelands) that are subject to the Waterways Act, M.G.L.c.91? ___ Yes ___ No; if yes, is there a current Chapter 91 License or Permit affecting the project site? ___ Yes ___ No; if yes, list the date and license or permit number and provide a copy of the historic map used to determine extent of filled tidelands:

B. Does the project require a new or modified license or permit under M.G.L.c.91? ___ Yes ___ No; if yes, how many acres of the project site subject to M.G.L.c.91 will be for non-water-dependent use? Current ___ Change ___ Total ___
If yes, how many square feet of solid fill or pile-supported structures (in sf)?

C. For non-water-dependent use projects, indicate the following:

Area of filled tidelands on the site: _____

Area of filled tidelands covered by buildings: _____

For portions of site on filled tidelands, list ground floor uses and area of each use:

_____ Does the project include new non-water-dependent uses located over flowed tidelands?

Yes ___ No ___

Height of building on filled tidelands _____

Also show the following on a site plan: Mean High Water, Mean Low Water, Water-dependent Use Zone, location of uses within buildings on tidelands, and interior and exterior areas and facilities dedicated for public use, and historic high and historic low water marks.

D. Is the project located on landlocked tidelands? ___ Yes ___ No; if yes, describe the project's impact on the public's right to access, use and enjoy jurisdictional tidelands and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

E. Is the project located in an area where low groundwater levels have been identified by a municipality or by a state or federal agency as a threat to building foundations? ___ Yes ___ No; if yes, describe the project's impact on groundwater levels and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

F. Is the project non-water-dependent **and** located on landlocked tidelands **or** waterways or tidelands subject to the Waterways Act **and** subject to a mandatory EIR? ___ Yes ___ No;

(NOTE: If yes, then the project will be subject to Public Benefit Review and Determination.)

G. Does the project include dredging? ___ Yes ___ No; if yes, answer the following questions:

What type of dredging? Improvement ___ Maintenance ___ Both ___

What is the proposed dredge volume, in cubic yards (cys) _____

What is the proposed dredge footprint ___ length (ft) ___ width (ft) ___ depth (ft);

Will dredging impact the following resource areas?

Intertidal Yes___ No___; if yes, ___ sq ft

Outstanding Resource Waters Yes___ No___; if yes, ___ sq ft

Other resource area (i.e. shellfish beds, eel grass beds) Yes___ No___; if yes ___ sq ft

If yes to any of the above, have you evaluated appropriate and practicable steps to: 1) avoidance; 2) if avoidance is not possible, minimization; 3) if either avoidance or minimize is not possible, mitigation?

If no to any of the above, what information or documentation was used to support this determination?

Provide a comprehensive analysis of practicable alternatives for improvement dredging in accordance with 314 CMR 9.07(1)(b). Physical and chemical data of the sediment shall be included in the comprehensive analysis.

Sediment Characterization

Existing gradation analysis results? ___Yes ___No: if yes, provide results.

Existing chemical results for parameters listed in 314 CMR 9.07(2)(b)6? ___Yes ___No; if yes, provide results.

Do you have sufficient information to evaluate feasibility of the following management options for dredged sediment? If yes, check the appropriate option.

Beach Nourishment ___

Unconfined Ocean Disposal ___

Confined Disposal:

Confined Aquatic Disposal (CAD) ___

Confined Disposal Facility (CDF) ___

Landfill Reuse in accordance with COMM-97-001 ___

Shoreline Placement ___

Upland Material Reuse ___

In-State landfill disposal ___

Out-of-state landfill disposal ___

(NOTE: This information is required for a 401 Water Quality Certification.)

IV. Consistency:

A. Does the project have effects on the coastal resources or uses, and/or is the project located within the Coastal Zone? ___ Yes ___ No; if yes, describe these effects and the projects consistency with the policies of the Office of Coastal Zone Management:

B. Is the project located within an area subject to a Municipal Harbor Plan? ___ Yes ___ No; if yes, identify the Municipal Harbor Plan and describe the project's consistency with that plan:

WATER SUPPLY SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **water supply** (see 301 CMR 11.03(4))? ___ Yes No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **water supply**? ___ Yes No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Wastewater Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Water Supply Section below.

II. Impacts and Permits

A. Describe, in gallons per day (gpd), the volume and source of water use for existing and proposed activities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Municipal or regional water supply	_____	_____	_____
Withdrawal from groundwater	_____	_____	_____
Withdrawal from surface water	_____	_____	_____
Interbasin transfer	_____	_____	_____

(NOTE: Interbasin Transfer approval will be required if the basin and community where the proposed water supply source is located is different from the basin and community where the wastewater from the source will be discharged.)

B. If the source is a municipal or regional supply, has the municipality or region indicated that there is adequate capacity in the system to accommodate the project? ___ Yes ___ No

C. If the project involves a new or expanded withdrawal from a groundwater or surface water source, has a pumping test been conducted? ___ Yes ___ No; if yes, attach a map of the drilling sites and a summary of the alternatives considered and the results. _____

D. What is the currently permitted withdrawal at the proposed water supply source (in gallons per day)? _____ Will the project require an increase in that withdrawal? ___ Yes ___ No; if yes, then how much of an increase (gpd)? _____

E. Does the project site currently contain a water supply well, a drinking water treatment facility, water main, or other water supply facility, or will the project involve construction of a new facility? ___ Yes ___ No. If yes, describe existing and proposed water supply facilities at the project site:

	<u>Permitted Flow</u>	<u>Existing Avg Daily Flow</u>	<u>Project Flow</u>	<u>Total</u>
Capacity of water supply well(s) (gpd)	_____	_____	_____	_____
Capacity of water treatment plant (gpd)	_____	_____	_____	_____

F. If the project involves a new interbasin transfer of water, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or proposed?

G. Does the project involve:

1. new water service by the Massachusetts Water Resources Authority or other agency of the Commonwealth to a municipality or water district? ___ Yes ___ No
2. a Watershed Protection Act variance? ___ Yes ___ No; if yes, how many acres of alteration?
3. a non-bridged stream crossing 1,000 or less feet upstream of a public surface drinking water supply for purpose of forest harvesting activities? ___ Yes ___ No

III. Consistency

Describe the project's consistency with water conservation plans or other plans to enhance water resources, quality, facilities and services:

WASTEWATER SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wastewater** (see 301 CMR 11.03(5))? ___ Yes No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **wastewater**? ___ Yes No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Transportation -- Traffic Generation Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wastewater Section below.

II. Impacts and Permits

A. Describe the volume (in gallons per day) and type of disposal of wastewater generation for existing and proposed activities at the project site (calculate according to 310 CMR 15.00 for septic systems or 314 CMR 7.00 for sewer systems):

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Discharge of sanitary wastewater	_____	_____	_____
Discharge of industrial wastewater	_____	_____	_____
TOTAL	_____	_____	_____
	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Discharge to groundwater	_____	_____	_____
Discharge to outstanding resource water	_____	_____	_____
Discharge to surface water	_____	_____	_____
Discharge to municipal or regional wastewater facility	_____	_____	_____
TOTAL	_____	_____	_____

B. Is the existing collection system at or near its capacity? ___ Yes ___ No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

C. Is the existing wastewater disposal facility at or near its permitted capacity? ___ Yes ___ No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

D. Does the project site currently contain a wastewater treatment facility, sewer main, or other wastewater disposal facility, or will the project involve construction of a new facility? ___ Yes ___ No; if yes, describe as follows:

	<u>Permitted</u>	<u>Existing Avg Daily Flow</u>	<u>Project Flow</u>	<u>Total</u>
Wastewater treatment plant capacity (in gallons per day)	_____	_____	_____	_____

E. If the project requires an interbasin transfer of wastewater, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or new?

(NOTE: Interbasin Transfer approval may be needed if the basin and community where wastewater will be discharged is different from the basin and community where the source of water supply is located.)

F. Does the project involve new sewer service by the Massachusetts Water Resources Authority (MWRA) or other Agency of the Commonwealth to a municipality or sewer district? ___ Yes ___ No

G. Is there an existing facility, or is a new facility proposed at the project site for the storage, treatment, processing, combustion or disposal of sewage sludge, sludge ash, grit, screenings, wastewater reuse (gray water) or other sewage residual materials? ___ Yes ___ No; if yes, what is the capacity (tons per day):

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Treatment	_____	_____	_____
Processing	_____	_____	_____
Combustion	_____	_____	_____
Disposal	_____	_____	_____

H. Describe the water conservation measures to be undertaken by the project, and other wastewater mitigation, such as infiltration and inflow removal.

III. Consistency

A. Describe measures that the proponent will take to comply with applicable state, regional, and local plans and policies related to wastewater management:

B. If the project requires a sewer extension permit, is that extension included in a comprehensive wastewater management plan? ___ Yes ___ No; if yes, indicate the EEA number for the plan and whether the project site is within a sewer service area recommended or approved in that plan:

TRANSPORTATION SECTION (TRAFFIC GENERATION)

I. Thresholds / Permit

A. Will the project meet or exceed any review thresholds related to **traffic generation** (see 301 CMR 11.03(6))? Yes ___ No; if yes, specify, in quantitative terms: **11.03(6)(b)14: Generation of 1,000 or more new ADT on roadways providing access to a single location and construction of 150 or more new parking spaces at a single location.**

B. Does the project require any state permits related to **state-controlled roadways**? ___ Yes No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Roadways and Other Transportation Facilities Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Traffic Generation Section below.

II. Traffic Impacts and Permits

A. Describe existing and proposed vehicular traffic generated by activities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Number of parking spaces	<u>0</u>	<u>+299</u>	<u>299</u>
Number of vehicle trips per day	<u>0</u>	<u>+1,142</u>	<u>1,142</u>

ITE Land Use Code(s):

Proposed: ITE 10th Edition, LUC 220 (Multifamily Housing (Low-Rise)) applied to 156 units

B. What is the estimated average daily traffic on roadways serving the site?

Roadway	Existing	Change	Total
1. <u>Surfside Rd – East of Fairground Rd</u>	<u>3,789±</u>	<u>+58</u>	<u>3,847±</u>
2. <u>Surfside Rd – West of Fairgrounds Rd</u>	<u>7,722±</u>	<u>+514</u>	<u>8,236±</u>
3. <u>Fairground Rd – North of Surfside Rd</u>	<u>6,522±</u>	<u>+570</u>	<u>7,092±</u>
4. <u>South Shore Rd – South of Site</u>	<u>2,900±</u>	<u>NEGL.</u>	<u>2,900±</u>

C. If applicable, describe proposed mitigation measures on state-controlled roadways that the project proponent will implement:

The project does not require any mitigation measures on state-controlled roadways.

D. How will the project implement and/or promote the use of transit, pedestrian and bicycle facilities and services to provide access to and from the project site?

The proposed on-site sidewalk system will connect to South Shore Road. A marked crosswalk and ADA compliant ramps will be provided across South Shore Road at its intersection with the proposed site driveway to provide a connection to the existing paved South Shore Road Bike Path and a pedestrian connection to the nearby NRTA bus stop located on Fairgrounds Road. The project will also provide a sidewalk along the western side of South Shore Road between the site driveway and Surfside Road within the available right-of-way or project layout. The project will include exterior bicycle racks within the property and weather protected bicycle parking areas will be provided in secure areas within the residential buildings. The project will also provide TDM actions as appropriate to encourage alternative travel modes for residents and visitors. These include on-site amenities, bicycle storage racks, pedestrian connections, and other methods of reducing automobile use.

E. Is there a Transportation Management Association (TMA) that provides transportation demand management (TDM) services in the area of the project site? ___ Yes X No; if yes, describe if and how will the project will participate in the TMA:

F. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation facilities? ___ Yes X No; if yes, generally describe:

G. If the project will penetrate approach airspace of a nearby airport, has the proponent filed a Massachusetts Aeronautics Commission Airspace Review Form (780 CMR 111.7) and a Notice of Proposed Construction or Alteration with the Federal Aviation Administration (FAA) (CFR Title 14 Part 77.13, forms 7460-1 and 7460-2)? **N/A**

III. Consistency

Describe measures that the proponent will take to comply with municipal, regional, state, and federal plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services:

The project will have no material impact to area roadways. The project will provide appropriate sidewalks as well as sidewalk connections to the area multi-use paths and nearby transit stops. The project will have no material impact to area roadways.

TRANSPORTATION SECTION (ROADWAYS AND OTHER TRANSPORTATION FACILITIES)

I. Thresholds

A. Will the project meet or exceed any review thresholds related to **roadways or other transportation facilities** (see 301 CMR 11.03(6))? ___ Yes X No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **roadways or other transportation facilities**? ___ Yes No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Energy Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Roadways Section below.

II. Transportation Facility Impacts

A. Describe existing and proposed transportation facilities in the immediate vicinity of the project site:

- B. Will the project involve any
1. Alteration of bank or terrain (in linear feet)? _____
 2. Cutting of living public shade trees (number)? _____
 3. Elimination of stone wall (in linear feet)? _____

III. Consistency -- Describe the project's consistency with other federal, state, regional, and local plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services, including consistency with the applicable regional transportation plan and the Transportation Improvements Plan (TIP), the State Bicycle Plan, and the State Pedestrian Plan:

ENERGY SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **energy** (see 301 CMR 11.03(7))? ___ Yes No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **energy**? ___ Yes No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Air Quality Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Energy Section below.

II. Impacts and Permits

A. Describe existing and proposed energy generation and transmission facilities at the project site:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Capacity of electric generating facility (megawatts)	_____	_____	_____
Length of fuel line (in miles)	_____	_____	_____
Length of transmission lines (in miles)	_____	_____	_____
Capacity of transmission lines (in kilovolts)	_____	_____	_____

B. If the project involves construction or expansion of an electric generating facility, what are:

1. the facility's current and proposed fuel source(s)?
2. the facility's current and proposed cooling source(s)?

C. If the project involves construction of an electrical transmission line, will it be located on a new, unused, or abandoned right of way? ___ Yes ___ No; if yes, please describe:

D. Describe the project's other impacts on energy facilities and services:

III. Consistency

Describe the project's consistency with state, municipal, regional, and federal plans and policies for enhancing energy facilities and services:

AIR QUALITY SECTION

I. Thresholds

A. Will the project meet or exceed any review thresholds related to **air quality** (see 301 CMR 11.03(8))? ___ Yes No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **air quality**? ___ Yes No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Solid and Hazardous Waste Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Air Quality Section below.

II. Impacts and Permits

A. Does the project involve construction or modification of a major stationary source (see 310 CMR 7.00, Appendix A)? ___ Yes ___ No; if yes, describe existing and proposed emissions (in tons per day) of:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Particulate matter	_____	_____	_____
Carbon monoxide	_____	_____	_____
Sulfur dioxide	_____	_____	_____
Volatile organic compounds	_____	_____	_____
Oxides of nitrogen	_____	_____	_____
Lead	_____	_____	_____
Any hazardous air pollutant	_____	_____	_____
Carbon dioxide	_____	_____	_____

B. Describe the project's other impacts on air resources and air quality, including noise impacts:

III. Consistency

A. Describe the project's consistency with the State Implementation Plan:

B. Describe measures that the proponent will take to comply with other federal, state, regional, and local plans and policies related to air resources and air quality:

SOLID AND HAZARDOUS WASTE SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **solid or hazardous waste** (see 301 CMR 11.03(9))? ___ Yes No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **solid and hazardous waste**? ___ Yes No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Historical and Archaeological Resources Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Solid and Hazardous Waste Section below.

II. Impacts and Permits

A. Is there any current or proposed facility at the project site for the storage, treatment, processing, combustion or disposal of solid waste? ___ Yes ___ No; if yes, what is the volume (in tons per day) of the capacity:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Treatment, processing	_____	_____	_____

Combustion _____
 Disposal _____

B. Is there any current or proposed facility at the project site for the storage, recycling, treatment or disposal of hazardous waste? ___ Yes ___ No; if yes, what is the volume (in tons or gallons per day) of the capacity:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Storage	_____	_____	_____
Recycling	_____	_____	_____
Treatment	_____	_____	_____
Disposal	_____	_____	_____

C. If the project will generate solid waste (for example, during demolition or construction), describe alternatives considered for re-use, recycling, and disposal:

D. If the project involves demolition, do any buildings to be demolished contain asbestos?

___ Yes ___ No

E. Describe the project's other solid and hazardous waste impacts (including indirect impacts):

III. Consistency

Describe measures that the proponent will take to comply with the State Solid Waste Master Plan:

HISTORICAL AND ARCHAEOLOGICAL RESOURCES SECTION

I. Thresholds / Impacts

A. Have you consulted with the Massachusetts Historical Commission? Yes ___ No; if yes, attach correspondence. **(Attachment G)** For project sites involving lands under water, have you consulted with the Massachusetts Board of Underwater Archaeological Resources? ___ Yes ___ No; if yes, attach correspondence

B. Is any part of the project site a historic structure, or a structure within a historic district, in either case listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? Yes ___ No; if yes, does the project involve the demolition of all or any exterior part of such historic structure? ___ Yes No; if yes, please describe:

Nantucket Island is listed in the State and National Registers of Historic Places.

C. Is any part of the project site an archaeological site listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? ___ Yes No; if yes, does the project involve the destruction of all or any part of such archaeological site? ___ Yes ___ No; if yes, please describe:

D. If you answered "No" to all parts of both questions A, B and C, proceed to the **Attachments and Certifications** Sections. If you answered "Yes" to any part of either question A or question B, fill out the remainder of the Historical and Archaeological Resources Section below.

II. Impacts

Describe and assess the project's impacts, direct and indirect, on listed or inventoried historical and archaeological resources: **As stated within MHC's August 23, 2018 letter (Attachment G), the proposed as project will have "no adverse effect" (36 CFR 800.5(b); 950 CMR 71.07(2)(b)(2) to the Nantucket Historic District."**

III. Consistency

Describe measures that the proponent will take to comply with federal, state, regional, and local plans and policies related to preserving historical and archaeological resources: **As stated within MHC's August 23, 2018 letter (Attachment G), the proposed as project will have "no adverse effect" (36 CFR 800.5(b); 950 CMR 71.07(2)(b)(2) to the Nantucket Historic District."**

CERTIFICATIONS:

1. The Public Notice of Environmental Review has been/will be published in the following newspapers in accordance with 301 CMR 11.15(1):

Cape Cod Times (3/25/2020) & Inquirer and Mirror (3/26/2020)

2. This form has been circulated to Agencies and Persons in accordance with 301 CMR 11.16(2).

Signatures:

J. Feeley, Manager

3-13-20

3/13/2020

Brian Madden

Date Signature of Responsible Officer
or Proponent

Date Signature of person preparing
NPC (if different from above)

Jamie Feeley

Brian Madden

Name (print or type)

Name (print or type)

Surfside Crossing, LLC

LEC Environmental Consultants, Inc.

Firm/Agency

Firm/Agency

37 Old South Road, #6

12 Resnik Road, Unit 1

Street

Street

Nantucket, MA 02554

Plymouth, MA 02360

Municipality/State/Zip

Municipality/State/Zip

508-825-8825

508-746-9491

Phone

Phone

1. Introduction

Surfside Crossing is proposed by the Project Proponent to create a wide range of homeownership options for year-round residents through a high-quality, mixed income community. Based on pre-filing market research, the Project targets servicing middle-income residents on Nantucket that earn too much to qualify for subsidized housing, but too little to afford the market rate inventory. The 13.56± acre Project Site was selected based on its location that abuts similar residential developments.

2. Existing Conditions/Land Uses

The 13.56± acre Project site, composed of four (4) subject parcels, is located southwest of the Surfside Road, Fairgrounds Road, and South Shore Road intersection on Nantucket. Moderately dense affordable housing development abuts directly to the north, including Sachem's Path (37 units) and Miacomet Village (41 units). Single-family homes occur directly to the west and south, while the Project site maintains frontage along South Shore Road to the east.

The Project site itself is occupied by pitch pine (*Pinus rigida*) barren habitat conditions maintaining a partially to moderately open canopy with scattered denser pine clusters. The understory is dominated by patches of bayberry (*Morella pensylvanica*) and clusters and individuals of scrub oak (*Quercus ilicifolia*), distributed somewhat unevenly across the site. Black huckleberry (*Gaylussacia baccata*) and arrowwood (*Viburnum dentatum*) are present at lower concentrations, along with sporadic black cherry (*Prunus serotina*), saplings and young trees. Lowbush blueberry (*Vaccinium angustifolium*), dewberry (*Rubus flagellaris*), poison ivy (*Toxicodendron radicans*), and Pennsylvania sedge (*Carex pensylvanica*) dominate portions of the groundcover. A few isolated openings of herbaceous vegetation occur sporadically, dominated by Pennsylvania sedge and little bluestem (*Schizachyrium scoparium*).

In February 2018, a path was brush cut off South Shore Road into the Project site to allow access for soil testing activities. The aforementioned species, predominantly bayberry, black huckleberry, and Pennsylvania sedge, have since begun to regenerate within the brush cut path.

A 30-foot wide sewer easement extends through the eastern portion of the Project site, running parallel to South Shore Road. Two large diameter sewer force mains are centrally located within the easement. The sewer easement is largely overgrown by the species listed above. However, the southerly portion of the on-site sewer easement was used as a driveway/storage area and is currently composed of dirt/gravel, miscellaneous herbaceous vegetation, and vegetative clippings.

Additionally, a fenced-in animal paddock previously encroached onto the south-central portion of the Project Site. More recently, the split rail fencing around the perimeter of the paddock has been relocated off-site. The former paddock area is currently occupied by shorn grasses. Vegetative clippings about the former paddock area.

According to the MassGIS NHESP data layers and the 14th Edition of the *Massachusetts Natural Atlas* (effective August 1, 2017), the Project site is located within a Priority Habitat of Rare Species (PH 8) (**Attachment E**). As stated within NHESP's September 8, 2017 letter, the following state-listed rare species have been found in the vicinity of the site: Melsheimer's Sack Bearer (*Cicinnus melsheimeri*), Coastal Swamp Metarranthis (*Metarranthis pilosaria*), Waxed Sallow Moth (*Chaetagnalea cerata*), Pink Sallow (*Psectraglaea carnosa*), Sandplain Heterocampa (*Heterocampa varia*), and Chain Dot Geometer (*Cingilia catenaria*); six (6) state-listed rare moth species (Lepidoptera) protected as either "Special Concern" or "Threatened" under the *Massachusetts Endangered Species Act* (MESA, M.G.L. c. 131A) and its implementing *Regulations* (321 CMR 10.00).

In order to determine presence or absence of the state-listed moth species on the Project site, NHESP-approved Lepidoptera field surveys were completed. Based on a review of survey results and MESA Project Review application materials, NHESP issued a letter on October 19, 2018, stating that "the Division has determined that the project, as proposed, **will result in a Take (321 CMR 10.18 (2)(b))** of the Coastal Heathland Cutworm..." (**Attachment F**).

3. Proposed Project

The Project, as currently proposed, consists of 156 condominium units across 18 buildings. The proposed buildings will be composed of two above-grade stories and a garden terrace with each building containing eight to nine units. The development will be accessed via an internal roadway system with two site entrances extending off South Shore Road. Approximately 299 parking spaces will be provided for the Project. A community building, pool, sports court, playground, and green space will be located within the interior of the development footprint. The proposed development will include conduits for future potential solar panels on the building roofs, and conduits for future car charging ports at parking spaces.

The development will connect to municipal sewer and water. Lawn/landscaping will be serviced by a private irrigation well on-site. The proposed sewer system consists of a series of eight-inch gravity lines and manholes designed in accordance with the Town of Nantucket specifications for the installation of sewers. The gravity lines lead to a proposed pump station near South Shore Road. It is anticipated that the pump station will discharge into one of the two sewer force mains

in South Shore Road. The sewer system has been designed to connect to a possible gravity line in South Shore Road, if ever constructed.

The stormwater management system for the Project have been designed to comply with the Massachusetts Stormwater Management Standards. The system has been designed to accommodate the 100-year storm event. The majority of the Project site is located within a designated Zone II Wellhead Protection Area. The Project site contains deep, excessively drained soils formed on glacial outwash plains. These soils consist of fine to coarse sands and gravel offering high permeability rates and excellent groundwater recharge characteristics. Groundwater is estimated to be approximately 20 feet deep, based on local maps.

All runoff will be treated, and pollution prevention measures shall be incorporated into the design in accordance with Best Management Practices (BMPs) determined by the MA Department of Environmental Protection (MsDEP) in the Stormwater Management Handbook. Runoff from impervious paved surfaces will be handled via a treatment train of deep sump and hooded catch basins, and oil-grit separators prior to discharge into subsurface infiltration systems. Roof runoff from the condominium buildings and community building will be discharged into individual on-site subsurface infiltration systems.

Project site disturbance totals 12.27± acres. Approximately 1.29± acres of the Project site will remain undisturbed around the perimeter of the proposed development.

Project Proponent Representatives engaged NHESP early in pre-filing consultation to review MESA permitting requirements. The Project Proponent has coordinated with NHESP to review performance standards for issuance of a Conservation and Management Permit (CMP; 321 CMR 10.23). A CMP Application will be submitted after issuance of a final MEPA Certificate.

4. Alternatives Analysis

The Project Proponent contemplated several alternatives during the Nantucket Zoning Board of Appeals (ZBA) review process of the Comprehensive Permit Application, including the original 156-unit proposal, reduced 100-unit, and a 92-unit proposal. A comparative table is provided below.

On June 13, 2019, the ZBA issued a Comprehensive Permit, an effective denial, approving the construction of 60 ownership dwelling units, with a maximum total bedroom count of 206. The Comprehensive Permit decision was subsequently appealed by the Project Proponent to the Massachusetts Department of Housing and Community Development Housing Appeals Committee (HAC), stating that the permit, with conditions, renders the Project uneconomic;

constitutes a constructive denial; impermissibly interferes with the exclusive jurisdiction of the subsidizing agency; impermissibly redesigns the Project; imposes conditions beyond the ZBA's authority; and/or subjects the Project Proponent to unequal treatment in violation of M.G.L. c. 40B, s. 20. The issued Comprehensive Permit did not align with the s Proponent's stated goal of significantly increasing the number of home ownership options available to year-round Nantucket residents.

A "No Build" alternative was not considered in consideration of the Project Proponent's stated goal.

Original 156-Unit Proposal

As depicted on the February 15, 2018 plan set (**Attachment H**), the original residential development submitted as part of the Comprehensive Permit Application with the Nantucket Zoning Board of Appeals (ZBA) involved the construction of 156 residential dwelling units in two components: 60 stand-alone, single-family cottages on fee simple lots, and 96 condominium dwelling units, contained within six multi-family buildings. Thirty-nine units would be affordable, and comprised of 15 stand-alone, single-family cottages and 24 condominium units. The existing lots were proposed to be subdivided into 60 fee simple lots, four open space lots, and a 3.6-acre condominium lot. Off-street parking was proposed to consist of two spaces per single family residence and 148 spaces designated for the condominiums.

Stormwater will be directed to a series of subsurface infiltration systems scattered throughout the development; designed in compliance with Massachusetts Stormwater Management Standards. The development will connect to municipal sewer and water. Due to the flat topography across the Project site, very minimal regrading is necessary. Proposed green spaces, gardens, and/or playgrounds are distributed within the development footprint. A 10-30 foot wide variable vegetated buffer will surround the proposed development.

Site disturbance totaled 12.84± acres.

100-Unit Alternative

During the ZBA review process and following extensive peer reviews on traffic/parking/transportation and site design/layout, stormwater/drainage, environmental, and zoning/regulatory compliance, the Project Proponent submitted a potential modified plan consisting of 100 units; 40 cottages and 60 condominiums within five buildings (12 units/building). The modified plan was submitted as a potential compromise to address feedback received to date, without relinquishing the original proposal. The 100-unit plan was offered contingent upon issuance of a favorable Comprehensive Permit.

The condominiums were shifted to the rear (westerly) portion of the Project site with stand-alone single-family cottages to the east, as depicted on the March 19, 2019 plan set (**Attachment I**).

The proposed roadway design was slightly modified and the roadway width was decreased to 22 feet in comparison to variable 20-24 feet (original). Open Space was increased from 0.95± acres to 2.8± acres, including an increased side and rear buffer of 25 feet and 50-70 feet off South Shore Road. Parking was increased to 163 spaces for the condominiums to address ZBA feedback. A community building was also added that would be available to public. Subsurface infiltration systems were Stormwater management incorporated subsurface infiltration systems.

Site disturbance totaled approximately 11.92± acres.

The 100-unit Alternative was not approved by the ZBA.

92-Unit Alternative

Following submission of the potential 100-unit plan, the Project Proponent engaged in design review workshop meetings with a ZBA-appointed architect and additional work group participants. Thereafter, the Project Proponent submitted a further (potential) modified plan consisting of 92 units; 44 stand-alone single-family residences on fee simple lots, 40 multi-family condominium units in a mix of eight-unit buildings, and eight units located in four duplex buildings with 25% designed as affordable units (23 units: 11 single-family residences, 10 condominium units, and two duplex units). The 92-unit plan was not engineered, but an *Overall Site Development Plan* and *Landscape Plan* were submitted (**Attachment J**). Stormwater management was intended to be comparable the 100-unit design. Similar to the potential 100-unit modified plan, the Project Proponent reserved its rights regarding the original 156-unit development. The 92-unit plan was offered contingent upon issuance of a favorable Comprehensive Permit.

Site disturbance totaled approximately 11.41± acres.

The 92-unit Alternative was not further developed or approved by the ZBA.

The following compares the alternative layouts:

Alternative Comparisons

	<u>Original 156-Unit</u>	<u>100-Unit</u>	<u>92-Unit</u>	<u>Current 156-Unit</u> <u>(Preferred Alternative)</u>
New Land Altered (acres)	12.84±	11.92±	11.41±	12.27±
Impervious Acres (acres)	6.05±	5.40±	5.10±	6.48±
Vehicle Trips/Day*	1,272±	Not Determined	Not Determined	1,142±
Number of Parking Spaces	266	244	230	299
Water Use** (GPD per Title V)	42790±	31350±	31020±	31330±
Wastewater Generation (GPD per Title V)	42790±	31350±	31020±	31330±
Undisturbed (acres)	0.72±	1.64±	2.15±	1.29±

**ITE's Trip Generation1 for the Land Use Code*

LUC 220 – Multifamily Housing (Low-Rise)

***excludes irrigation well*

5. Mitigation Measures

The following reviews Rare Species/Land and Transportation/Traffic Mitigation Measures.

Transportation/Traffic

The proposed on-site sidewalk system will connect to South Shore Road. A marked crosswalk and ADA compliant ramps will be provided across South Shore Road at its intersection with the proposed Site Driveway to provide a connection to the existing paved South Shore Road Bike Path and a pedestrian connection to the nearby NRTA bus stop located on Fairgrounds Road. The project will also provide a sidewalk along the western side of South Shore Road between the site driveway and Surfside Road within the available right-of-way or project layout. The Project will include exterior bicycle racks within the property and weather protected bicycle parking areas will be provided in secure areas within the residential buildings. The Project will also provide Transportation Demand Management (TDM) actions as appropriate to encourage alternative travel modes for residents and visitors. These include on-site amenities, bicycle storage racks, pedestrian connections, and other methods of reducing automobile use.

Rare Species

Coastal Heathland Cutworm

The Project Proponent is proposing to provide off-site Rare Species mitigation through land protection of up to 20.34± acres via an Executive Office of Energy & Environmental Affairs-Division of Conservation Services (EEA-DCS) approved Conservation Restriction or conveyance in fee to a qualified government entity approved by NHESP; and/or funding directly to a qualified conservation entity to support a specific, NHESP-approved land protection, conservation research, habitat management, and/or conservation planning project(s) to benefit the Coastal Heathland Cutworm. As previously reviewed with NHESP, the specific details of the mitigation requirements (i.e., long-term Net Benefit) will be finalized through NHESP's review of the CMP Application; however, the potential for off-site land protection under the Conservation Management Plan will be reviewed ahead of off-site funding.

While undisturbed buffers will be provided around the perimeter of the development footprint, the Project Proponent is proposing to provide mitigation for the entire 13.56± acre Project Site through off-site land protection. As affirmed by NHESP and required under 321 CMR 10.23 of the MESA Regulations, habitat impacts to species of "Special Concern" resulting in a "take" shall carry a 1.5:1 mitigation ratio (*i.e., protection of one and one half times the amount of areal habitat of the affected Species of Special Concern that is impacted by the Project or Activity*)

under a Conservation and Management Plan (long-term Net Benefit). Consequently, $13.56\pm$ acres $\times 1.5 = 20.34\pm$ acres (Required Mitigation).

The Project Proponent looks forward to working cooperatively with any on-island conservation group on appropriate land protection and/or funding for land protection, conservation research, habitat management, and/or conservation planning project(s) approved by NHESP.

Northern Long-Eared Bat

During the ZBA review process, the question whether the Project Site provided habitat for the state-listed Northern Long-Eared Bat (*Myotis septentrionalis*) was brought forward to the ZBA and NHESP. The Project site is not currently mapped as Priority Habitat for the Northern Long-Eared Bat as affirmed by the Final Decision in the Adjudication of the Appeal, dated December 5, 2019, issued by the MA Division of Fisheries and Wildlife. That said, the Project Proponent has voluntarily agreed to implement time-of-year tree cutting restrictions in consideration of the Northern Long-Eared Bat as mitigation.

To provide background, the Northern Long-Eared Bat is an “Endangered” species protected under MESA. As the Northern Long-Eared Bat is a federally “Threatened” species and is mapped statewide by the U.S. Fish & Wildlife Service (USFWS), projects in Massachusetts that result in tree removal activities shall comply with the 4(d) rule under the federal Endangered Species Act (ESA, 50 CFR 17.11), effective 2/16/2016, which states:

“Incidental take resulting from tree removal is prohibited if: 1) Occurs within 0.25 mile radius of known northern long-eared bat hibernacula or 2) cuts or destroys known occupied maternity roost trees, or any other trees within a 150-foot radius from the known maternity tree during the pup season (June 1 through July 31).”

The Project Proponent is committed to no tree clearing during June and July of any year in line with the 4(d) rule and as confirmed with NHESP.

Attachment A

Distribution List

ENF Distribution List: Shore Road, Nantucket, Massachusetts

Secretary Kathleen A. Theoharides Executive Office of Energy and Environmental Affairs Attn: MEPA Office 100 Cambridge Street, Suite 900 Boston, MA 02114 (2 copies)	Division of Marine Fisheries (South Shore) Attn: Environmental Reviewer 836 Rodney French Boulevard New Bedford, MA 02744 DMF.EnvReview-South@state.ma.us
Department of Environmental Protection Boston Office Commissioner's Office One Winter Street Boston, MA 02108	Nantucket Planning & Economic Development Comm. 2 Fairgrounds Road Nantucket, MA 02554
Department of Environmental Protection Southeastern Regional Office Attn: MEPA Coordinator 20 Riverside Drive Lakeville, MA 02347	Nantucket Planning Board 2 Fairgrounds Road Nantucket, MA 02554
Massachusetts Department of Transportation Public/Private Development Unit 10 Park Plaza, Suite #4150 Boston, MA 02116	Nantucket Conservation Commission 2 Bathing Beach Road Nantucket, MA 02554
Massachusetts Department of Transportation District #5 Attn: MEPA Coordinator Box 111 1000 County Street Taunton, MA 02780	Nantucket Board of Selectmen 16 Broad Street Nantucket, MA 02554
Massachusetts Historical Commission The MA Archives Building 220 Morrissey Boulevard Boston, MA 02125	Nantucket Board of Health 3 East Chestnut St. (NRTA Building) Nantucket, MA 02554
Coastal Zone Management Attn: Project Review Coordinator 251 Causeway Street, Suite 800 Boston, MA 02114	Natural Heritage and Endangered Species Program Massachusetts Division of Fisheries & Wildlife 1 Rabbit Hill Road, Westborough, MA 01581

Attachment B

Public Notice of Environmental Review

*Commonwealth of Massachusetts
Executive Office of Environmental Affairs*

MEPA Office

100 Cambridge St., Suite 900
Boston, MA 02114
Telephone 617-626-1020

The following should be completed and submitted to a local newspaper:

PUBLIC NOTICE OF ENVIRONMENTAL REVIEW

PROJECT: Surfside Crossing

LOCATION: 3, 5, 7, & 9 South Shore Road

PROPONENT: Surfside Crossing, LLC

The undersigned is submitting an Environmental Notification Form ("ENF") to the Secretary of Environmental Affairs on or before March 16, 2020

This will initiate review of the above project pursuant to the Massachusetts Environmental Policy Act ("MEPA", M.G.L. c. 30, s.s. 61-62I). Copies of the ENF may be obtained from:

LEC Environmental Consultants, Inc., 12 Resnik Road, Unit 1, Plymouth, MA 02360
508-746-9491

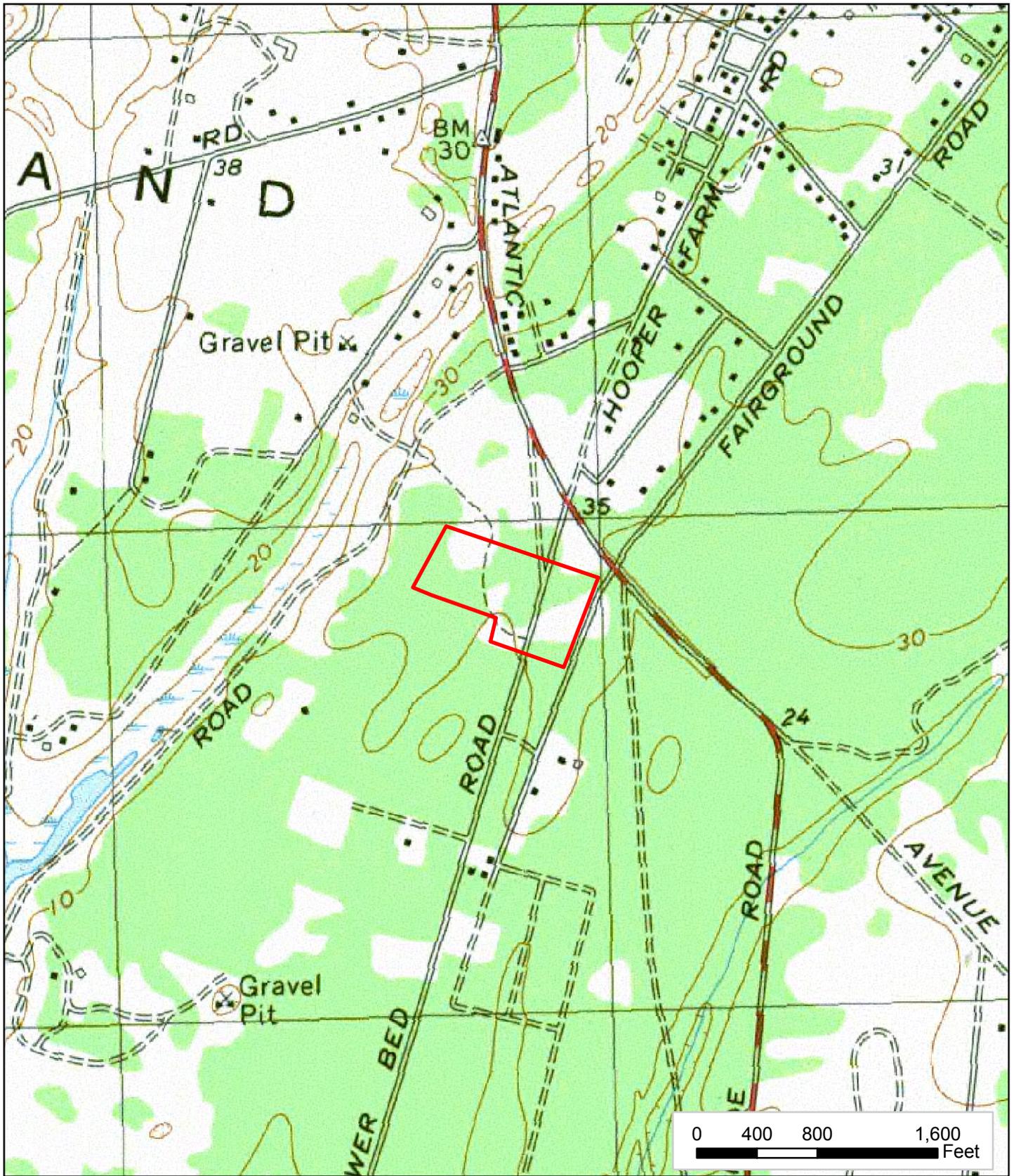
Copies of the ENF are also being sent to the Conservation Commission and Planning Board of Nantucket where they may be inspected.

The Secretary of Environmental Affairs will publish notice of the ENF in the Environmental Monitor, will receive public comments on the project for 20 days, and will then decide, within ten days, if an environmental Impact Report is needed. A site visit and consultation session on the project may also be scheduled. All persons wishing to comment on the project, or to be notified of a site visit or consultation session, should write to the Secretary of Environmental Affairs, 100 Cambridge St., Suite 900, Boston, Massachusetts 02114, Attention: MEPA Office, referencing the above project.

By Surfside Crossing, LLC

Attachment C

USGS Topographic Map



Plymouth, MA
508.746.9491
www.lecenvironmental.com

Attachment A: USGS Topographic Map

3, 5, 7, & 9 South Shore Road
Nantucket, Massachusetts



February 7, 2018

Attachment D

Aerial Orthophoto Map



2019 Aerial Orthophoto acquired from the Office of Geographic Information (MassGIS) website.

0 150 300 600 Feet



LEC Environmental Consultants, Inc.

Plymouth, MA
508.746.9491
www.lecenvironmental.com

Aerial Orthophoto Map

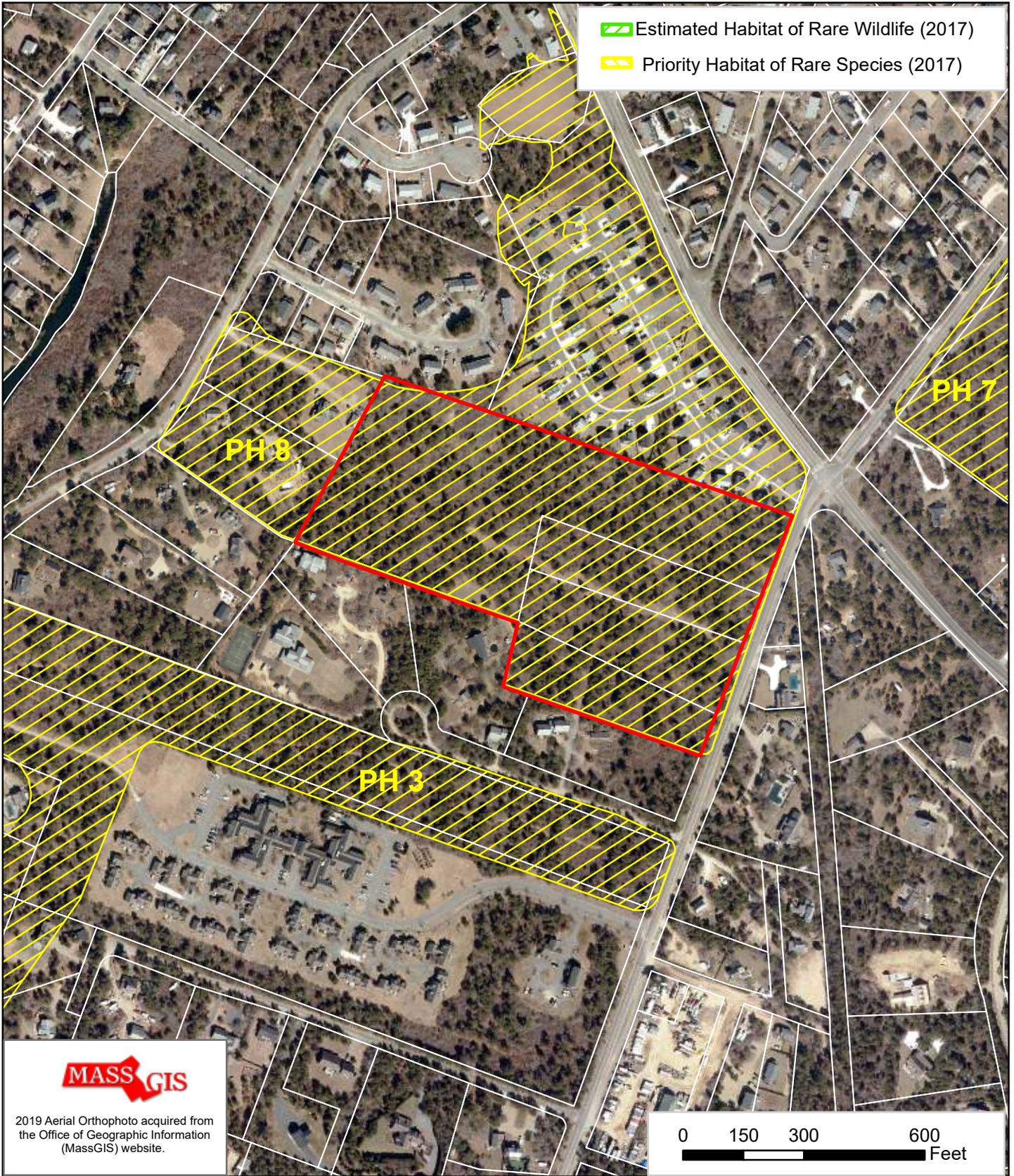
3, 5, 7, & 9 South Shore Road
Nantucket, Massachusetts



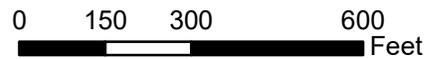
March 12, 2020

Attachment E

NHESP Map



2019 Aerial Orthophoto acquired from the Office of Geographic Information (MassGIS) website.



LEC Environmental Consultants, Inc.

Plymouth, MA
508.746.9491
www.lecenvironmental.com

NHESP Map

3, 5, 7, & 9 South Shore Road
Nantucket, Massachusetts



March 12, 2020

Attachment F

NHESP Letter, Dated October 19, 2018



MASSWILDLIFE

DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581

p: (508) 389-6300 | f: (508) 389-7890

MASS.GOV/MASSWILDLIFE

October 19, 2018

Surfside Crossing LLC
c/o Jamie Feeley
37 Old South Road, Unit #6
Nantucket, MA 02554

RE: Applicant: Surfside Crossing LLC
 Project Location: 3, 5, 7 and 9 South Shore Road, NANTUCKET
 Project Description: Construction of Residential Subdivision
 NHESP File No.: **12-31035**

Dear Applicant:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the "Division") received the MESA Project Review Checklist, site plans entitled "*Surfside Crossing*" A Proposed 40B Development in Nantucket, Massachusetts (dated February 15, 2018; prepared by Bracken Engineering, Inc.) and additional materials in compliance with the Massachusetts Endangered Species Act (MGL. c. 131A) and its implementing regulations (321 CMR 10.00) (MESA).

The MESA prohibits the Take of state-listed species, which includes actions that "in reference to animals, means to harass, harm, pursue, hunt, shoot, hound, kill, trap, capture, collect, process, disrupt the nesting, breeding, feeding or migratory activity or attempt to engage in any such conduct, or to assist such conduct... Disruption of nesting, breeding, feeding or migratory activity may result from, but is not limited to, the modification, degradation or destruction of habitat of state-listed wildlife species" (321 CMR 10.02).

The Division has determined that this project, as currently proposed, will occur within the mapped *Priority Habitat* of several state-listed Lepidoptera species according to the Massachusetts Natural Heritage Atlas (14th Edition). These species and their habitats are protected in accordance with the MESA. Fact sheets for state-listed species can be found at www.mass.gov/nhesp. Surveys for state-listed Lepidoptera were conducted on the property by a Division-approved biologist in 2016, in which Coastal Heathland Cutworm (*Abagrotis nefascia*), state-listed as Special Concern, was documented to occur within suitable on-site habitats. During pre-filing consultations the Applicant elected to have a Division-approved biologist conduct additional surveys for state-listed Lepidoptera on the property in 2018. Northern Brocade Moth (*Neoligia semicana*), state-listed as Special Concern, was documented during 2018 surveys; this species is likely associated with wetland marsh habitats located to the west of the property.

The project, as currently proposed, includes the construction of sixty (60) single-family homes, ninety-six (96) condominium units, roadways and associated site work on a ±13.56-acre property, as shown on the site plans. Based on a review of the information that was provided and the information that is currently contained in our database, the Division has determined that the project, as proposed, **will result in a**

MASSWILDLIFE

Take (321 CMR 10.18 (2)(b)) of the Coastal Heathland Cutworm resulting from the harming or killing of individuals, interference with feeding, breeding, over-wintering and migratory activities, and the permanent loss of suitable habitat for this species.

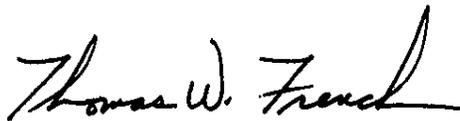
Projects resulting in a Take of state-listed species may only be permitted if they meet the performance standards for a Conservation and Management Permit (CMP; 321 CMR 10.23). In order for a project to qualify for a CMP, the applicant must demonstrate that the project has avoided, minimized and mitigated impacts to state-listed species consistent with the following performance standards: (a) adequately assess alternatives to both temporary and permanent impacts to the state-listed species, (b) demonstrate that an insignificant portion of the local population will be impacted, and (c) develop and agree to carry out a conservation and management plan that provides a long-term net benefit to the conservation of the state-listed species.

This Determination is a final decision of the Division of Fisheries and Wildlife pursuant to 321 CMR 10.18. Any person aggrieved by this decision shall have the right to an adjudicatory hearing at the Division pursuant to M.G.L. c. 30A, s.11 in accordance with the procedures for informal hearings set forth in 801 CMR 1.02 and 1.03. Any notice of claim for an adjudicatory hearing shall be made in writing, accompanied by a filing fee in the amount of \$500.00 and the information specified in 321 CMR 10.25 (3). The notice of claim shall be sent to the Division's Director, Mark S. Tisa, by certified mail, hand delivered or postmarked within twenty-one (21) days of the date of the Division's Determination.

Please note that projects resulting in a Take of two (2) or more acres within *Priority Habitat* must file an Environmental Notification Form (ENF) with the Massachusetts Environmental Policy Act ("MEPA") Office and complete all MEPA actions prior to completing the MESA permitting process, per 301 CMR 11.03 (2)(b).

Please note that no soil or vegetation disturbance, work, clearing, grading or other activities related to the subject filing shall be conducted anywhere on the project site until the MESA permitting process is complete. If you have any questions regarding this letter, please contact Jesse Leddick, Chief of Regulatory Review, at jesse.leddick@state.ma.us or (508) 389-6386.

Sincerely,



Thomas W. French, Ph.D.
Assistant Director
Massachusetts Division of Fisheries & Wildlife

cc: Brian Madden, LEC Environmental Consultants, Inc.

Attachment G

Massachusetts Historical Commission Letter,
Dated August 23, 2018



The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

August 23, 2018

James D. Freeley
Member
Surfside Crossing, LLC
37 Old South Road #6
Nantucket, MA 02554

RE: Surfside Crossing, 3, 5, 7, and 9 South Shore Road, Nantucket, MA. MHC #RC.63783.

Dear Mr. Freeley:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the archaeological report, *Intensive (Locational) Archaeological Survey, Surfside Crossing Project, Nantucket, Massachusetts*, prepared and submitted by the PAL, Inc., received August 1, 2018, for the project referenced above.

Results of the investigation identified the Surfside Crossing Site. The Surfside Crossing site is an isolated ancient Native American projectile point fragment similar to projectile point styles dating to the later Archaic Period (approximately 3, 200 to 2, 500 years ago). In the MHC's staff opinion, the Surfside Crossing Site possesses limited information content and therefore does not meet the criteria of evaluation (36 CFR 60) for listing in the National Register of Historic Places. No additional archaeological survey is recommended for the Surfside Crossing Site.

In the MHC's staff opinion, the project as proposed will have "no adverse effect" (36 CFR 800.5(b); 950 CMR 71.07(2)(b)(2)) to the Nantucket Historic District.

These comments are offered to assist in compliance with Massachusetts General Laws c. 9, ss. 26-27C (950 CMR 70-71). If you have questions or require additional information, then please contact Jonathan K. Patton at this office.

Sincerely,

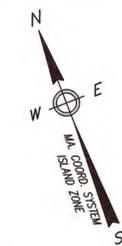
A handwritten signature in blue ink that reads "Brona Simon".

Brona Simon
Executive Director
State Historic Preservation Officer
State Archaeologist
Massachusetts Historical Commission

xc: Thomas French, NHESP
Bettina Washington, Wampanoag Tribe of Gay Head (Aquinnah)
Ramona Peters, Mashpee Wampanoag Tribe
Nantucket Historic District Commission
Nantucket Zoning Board of Appeals
Deborah C. Cox, PAL, Attn: Duncan Ritchie

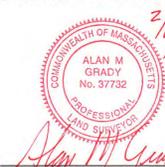
Attachment H

“Surfside Crossing” a Proposed 40B Development, prepared by Bracken Engineering, Inc., dated
February 15, 2018 (Original)



RESERVED FOR REGISTRY USE

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTRY OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.



ALAN M. GRADY, PLS
MASSACHUSETTS REG.
No. 37732

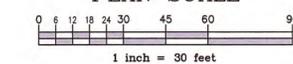
COMPREHENSIVE PERMIT:
DATE OF DECISION: _____, RECORDED WITH
NANTUCKET COUNTY REGISTRY OF DEEDS IN
BOOK _____, PAGE _____
DATE OF PLAN ENDORSEMENT: _____

ZONING BOARD OF APPEALS

THIS PLAN HAS BEEN APPROVED PURSUANT TO A
COMPREHENSIVE PERMIT ISSUED BY THE NANTUCKET
ZONING BOARD OF APPEALS PURSUANT TO M.G.L.
20-23, BY DECISION IN FILE NO. _____

NANTUCKET TOWN CLERK DATE

PLAN SCALE



Prepared By:



49 HERRING POND ROAD BUZZARDS BAY, MA 02532
(tel) 508.833.0070 (fax) 508.833.2282
19 OLD SOUTH ROAD NANTUCKET, MA 02554
(tel) 508.325.0044 (fax) 508.325.0044 www.brackeneng.com

Sheet Title:

LOTING PLAN

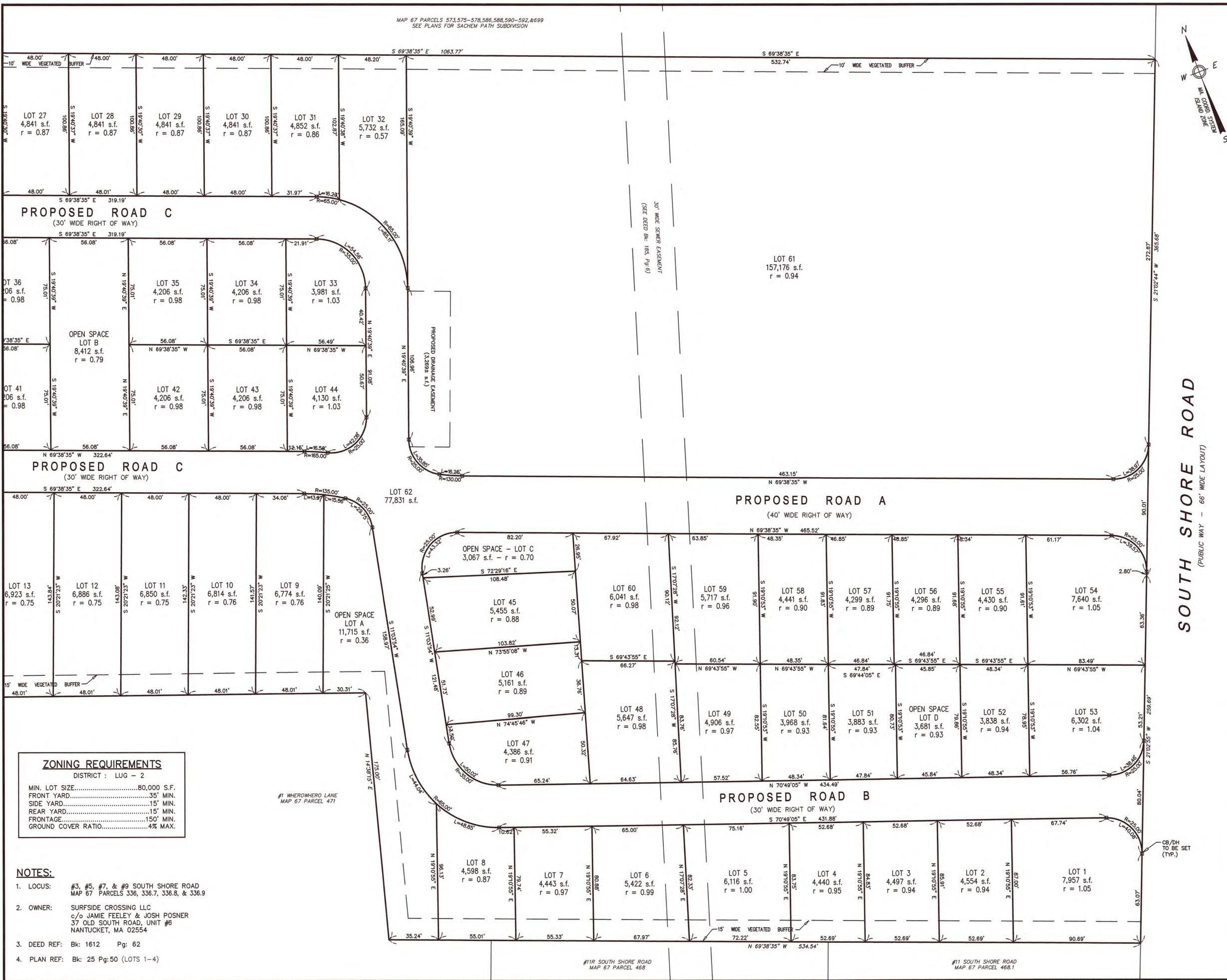
"SURFSIDE CROSSING"

A
PROPOSED 40B DEVELOPMENT
IN NANTUCKET, MASSACHUSETTS

Prepared For:
SURFSIDE CROSSING, LLC
#3, 5, 7 & 9 SOUTH SHORE ROAD
MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By

Date: FEBRUARY 15, 2018 Drawn: RMM/ERC/BE Checked: DFB/AMG Sheet: 3 of 11



ZONING REQUIREMENTS
DISTRICT : LUG - 2
MIN. LOT SIZE.....80,000 S.F.
FRONT YARD.....35' MIN.
SIDE YARD.....15' MIN.
REAR YARD.....15' MIN.
FRONTAGE.....150' MIN.
GROUND COVER RATIO.....4% MAX.

- NOTES:**
- LOCUS: #3, #5, #7, & #9 SOUTH SHORE ROAD
MAP 67 PARCELS 336, 336.7, 336.8, & 336.9
 - OWNER: SURFSIDE CROSSING LLC
c/o JAMIE FEELEY & JOSH POSNER
37 OLD SOUTH ROAD, UNIT #6
NANTUCKET, MA 02554
 - DEED REF: Bk: 1612 Pg: 62
 - PLAN REF: Bk: 25 Pg: 50 (LOTS 1-4)

ATLANTIC AVENUE
MAP 80 PARCEL 219

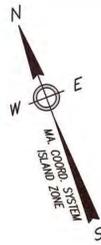
#4 SOUTH SHORE ROAD
MAP 67 PARCEL 74

#5 SOUTH SHORE ROAD
MAP 67 PARCEL 337

#8 SOUTH SHORE ROAD
MAP 80 PARCEL 3

#11R SOUTH SHORE ROAD
MAP 67 PARCEL 468

#11 SOUTH SHORE ROAD
MAP 67 PARCEL 468.1

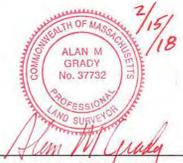


#6-12 NORQUARTA DRIVE
MAP 67 PARCEL 501

MAP 67 PARCELS 573,575-578,586,588,590-592,&699
SEE PLANS FOR SACHEM PATH SUBDIVISION

RESERVED FOR REGISTRY USE

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTRY OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.



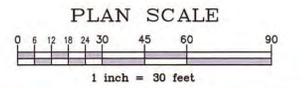
ALAN M. GRADY, PLS
MASSACHUSETTS REG.
No. 37732

COMPREHENSIVE PERMIT:
DATE OF DECISION: _____, RECORDED WITH
NANTUCKET COUNTY REGISTRY OF DEEDS IN
BOOK _____, PAGE _____
DATE OF PLAN ENDORSEMENT: _____

ZONING BOARD OF APPEALS

THIS PLAN HAS BEEN APPROVED PURSUANT TO A COMPREHENSIVE PERMIT ISSUED BY THE NANTUCKET ZONING BOARD OF APPEALS PURSUANT TO M.G.L. 20-23, BY DECISION IN FILE NO. _____

NANTUCKET TOWN CLERK _____ DATE _____



Prepared By:
BRACKEN ENGINEERING, INC.
49 HERRING POND ROAD BUZZARDS BAY, MA 02532
(tel) 508.833.0070 (fax) 508.833.2282
19 OLD SOUTH ROAD NANTUCKET, MA 02554
(tel) 508.325.0044 (fax) 508.325.0044 www.breckeneng.com

Sheet Title:
LOTING PLAN

"SURFSIDE CROSSING"
A
PROPOSED 40B DEVELOPMENT
IN NANTUCKET, MASSACHUSETTS

Prepared For:
SURFSIDE CROSSING, LLC
#3, 5, 7 & 9 SOUTH SHORE ROAD
MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

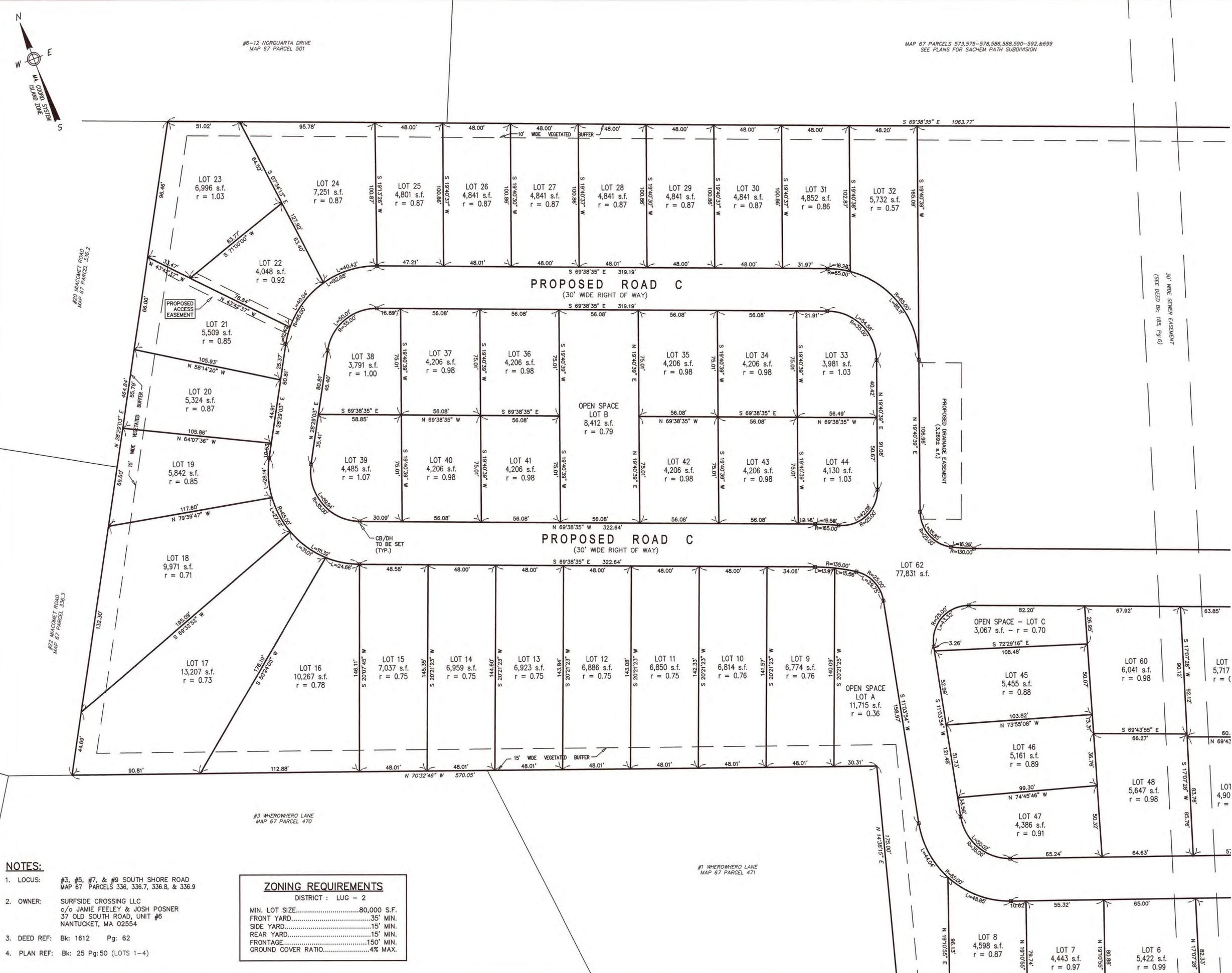
No.	Date	Revision Description	By

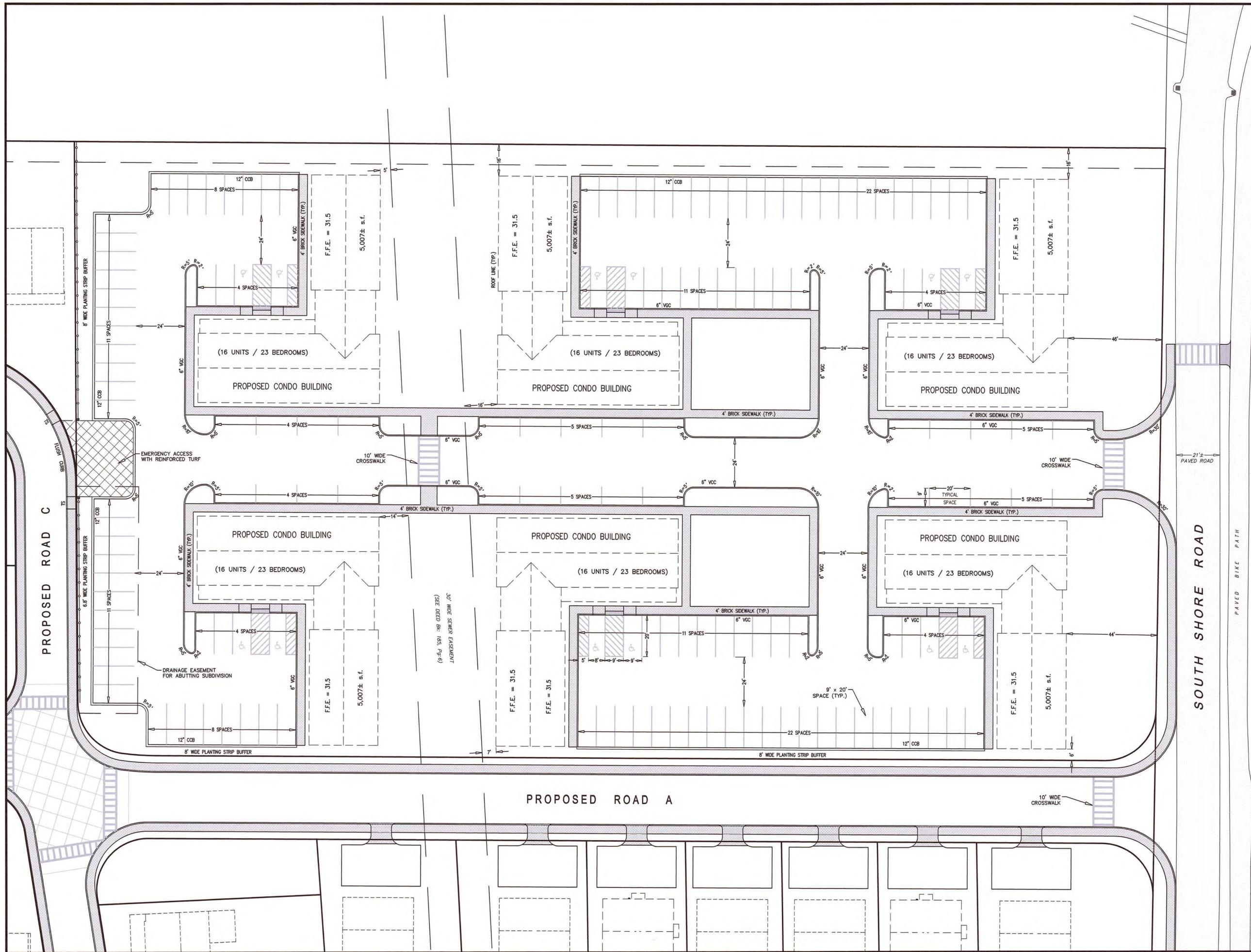
Date: FEBRUARY 15, 2018 Drawn: RMM/ERC/BEI Checked: DPB/AMG Sheet: 4 of 11

- NOTES:**
- LOCUS: #3, #5, #7, & #9 SOUTH SHORE ROAD MAP 67 PARCELS 336, 336.7, 336.8, & 336.9
 - OWNER: SURFSIDE CROSSING LLC c/o JAMIE FEELEY & JOSH POSNER 37 OLD SOUTH ROAD, UNIT #6 NANTUCKET, MA 02554
 - DEED REF: Bk: 1612 Pg: 62
 - PLAN REF: Bk: 25 Pg: 50 (LOTS 1-4)

ZONING REQUIREMENTS
DISTRICT: LUG - 2

MIN. LOT SIZE	80,000 S.F.
FRONT YARD	35' MIN.
SIDE YARD	15' MIN.
REAR YARD	15' MIN.
FRONTAGE	150' MIN.
GROUND COVER RATIO	4% MAX.





PARKING SUMMARY
per §139-18

REQUIRED CONDO PARKING:
(BASED UPON GARAGE APARTMENT PARKING REQ.)

TOTAL BEDROOMS = 138
SPACES REQUIRED = 138
TOTAL PROVIDED = 148 SPACES

ADA PARKING SUMMARY
per §521 CMR 23.2.1

REQUIRED:
TOTAL PARKING SPACES = 148
MIN. ACCESSIBLE SPACES REQUIRED = 5
(MIN. of 1 VAN ACCESSIBLE)

PROVIDED:
(8) ACCESSIBLE SPACES TOTAL
(4) VAN ACCESSIBLE SPACE

ZONING REQUIREMENTS
DISTRICT : LUG - 2

MIN. LOT SIZE.....80,000 S.F.
FRONT YARD.....35' MIN.
SIDE YARD.....15' MIN.
REAR YARD.....15' MIN.
FRONTAGE.....150' MIN.
GROUND COVER RATIO.....4% MAX.

NOTE:

SEE SHEET 10 FOR
VEHICLE TURNING
ANALYSIS FOR THE
MULTI-FAMILY PARCEL

COMMONWEALTH OF MASSACHUSETTS
DONALD F. BRACKEN JR.
CIVIL
No. 37971
Professional Engineer
Donald F. Bracken Jr.
2-15-18

COMMONWEALTH OF MASSACHUSETTS
ALAN M. GRADY
No. 37732
Professional Land Surveyor
Alan M. Grady
2/15/18

PLAN SCALE
1 inch = 20 feet

Prepared By:
BRACKEN ENGINEERING, INC.
49 HERRING POND ROAD BUZZARDS BAY, MA 02532
(tel) 508.833.0070 (fax) 508.833.2282
19 OLD SOUTH ROAD NANTUCKET, MA 02554
(tel) 508.328.0044 (www.brackeneng.com)

Sheet Title:
LAYOUT PLAN MULTI-FAMILY PARCEL

"SURFSIDE CROSSING"
A
PROPOSED 40B DEVELOPMENT
IN NANTUCKET, MASSACHUSETTS
Prepared For:
SURFSIDE CROSSING, LLC
#3, 5, 7 & 9 SOUTH SHORE ROAD
MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By

Date: FEBRUARY 15, 2018
Drawn: RMM/ERC/BEI
Checked: DFB/AMG
Sheet: 5 of 11

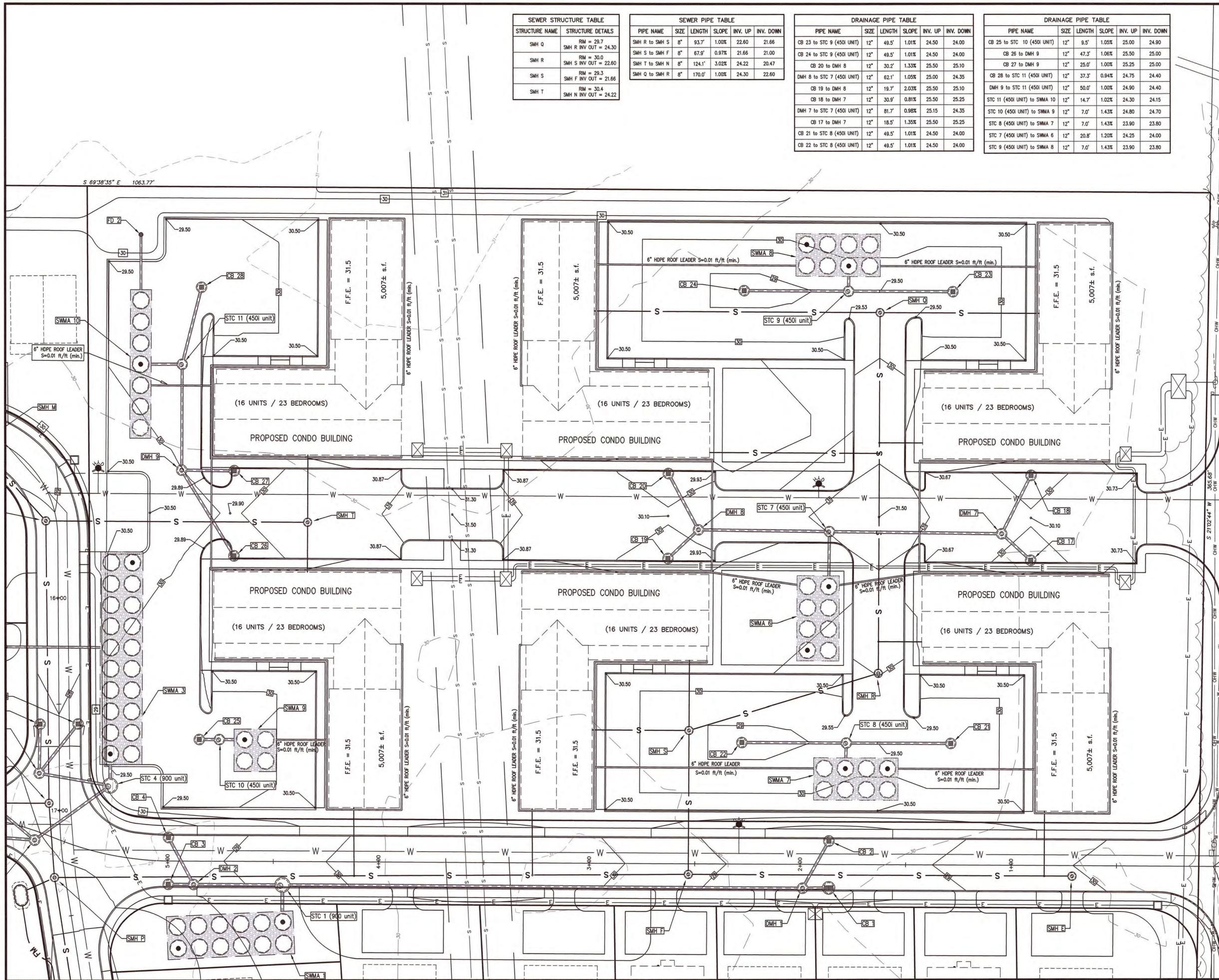
SEWER STRUCTURE TABLE	
STRUCTURE NAME	STRUCTURE DETAILS
SMH Q	RIM = 29.7 SMH R INV OUT = 24.30
SMH R	RIM = 30.0 SMH S INV OUT = 22.60
SMH S	RIM = 29.3 SMH T INV OUT = 21.66
SMH T	RIM = 30.4 SMH N INV OUT = 24.22

SEWER PIPE TABLE					
PIPE NAME	SIZE	LENGTH	SLOPE	INV. UP	INV. DOWN
SMH R to SMH S	8"	93.7'	1.00%	22.60	21.66
SMH S to SMH F	8"	67.9'	0.97%	21.66	21.00
SMH T to SMH N	8"	124.1'	3.02%	24.22	20.47
SMH Q to SMH R	8"	170.0'	1.00%	24.30	22.60

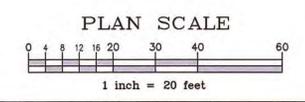
DRAINAGE PIPE TABLE					
PIPE NAME	SIZE	LENGTH	SLOPE	INV. UP	INV. DOWN
CB 23 to STC 9 (450I UNIT)	12"	49.5'	1.01%	24.50	24.00
CB 24 to STC 9 (450I UNIT)	12"	49.5'	1.01%	24.50	24.00
CB 20 to DMH 8	12"	30.2'	1.33%	25.50	25.10
DMH 8 to STC 7 (450I UNIT)	12"	62.1'	1.05%	25.00	24.35
CB 19 to DMH 8	12"	19.7'	2.03%	25.50	25.10
CB 18 to DMH 7	12"	30.9'	0.81%	25.50	25.25
DMH 7 to STC 7 (450I UNIT)	12"	81.7'	0.98%	25.15	24.35
CB 17 to DMH 7	12"	18.5'	1.35%	25.50	25.25
CB 21 to STC 8 (450I UNIT)	12"	49.5'	1.01%	24.50	24.00
CB 22 to STC 8 (450I UNIT)	12"	49.5'	1.01%	24.50	24.00

DRAINAGE PIPE TABLE					
PIPE NAME	SIZE	LENGTH	SLOPE	INV. UP	INV. DOWN
CB 25 to STC 10 (450I UNIT)	12"	9.5'	1.05%	25.00	24.90
CB 26 to DMH 9	12"	47.3'	1.06%	25.50	25.00
CB 27 to DMH 9	12"	25.0'	1.00%	25.25	25.00
CB 28 to STC 11 (450I UNIT)	12"	37.3'	0.94%	24.75	24.40
DMH 9 to STC 11 (450I UNIT)	12"	50.0'	1.00%	24.90	24.40
STC 11 (450I UNIT) to SWMA 10	12"	14.7'	1.02%	24.30	24.15
STC 10 (450I UNIT) to SWMA 9	12"	7.0'	1.43%	24.80	24.70
STC 8 (450I UNIT) to SWMA 7	12"	7.0'	1.43%	23.90	23.80
STC 7 (450I UNIT) to SWMA 6	12"	20.8'	1.20%	24.25	24.00
STC 9 (450I UNIT) to SWMA 8	12"	7.0'	1.43%	23.90	23.80

DRAINAGE STRUCTURE TABLE	
STRUCTURE NAME	STRUCTURE DETAILS
CB 17	RIM = 29.6 DMH 7 INV OUT = 25.50
CB 18	RIM = 29.6 DMH 7 INV OUT = 25.50
CB 19	RIM = 29.6 DMH 8 INV OUT = 25.50
CB 20	RIM = 29.6 DMH 8 INV OUT = 25.50
CB 21	RIM = 29.0 STC 8 (450I unit) INV OUT = 24.50
CB 22	RIM = 29.0 STC 8 (450I unit) INV OUT = 24.50
CB 23	RIM = 29.0 STC 9 (450I unit) INV OUT = 24.50
CB 24	RIM = 28.5 STC 9 (450I unit) INV OUT = 24.50
CB 25	RIM = 29.0 STC 10 (450I unit) INV OUT = 25.00
CB 26	RIM = 29.6 DMH 9 INV OUT = 25.50
CB 27	RIM = 29.6 DMH 9 INV OUT = 25.25
CB 28	RIM = 29.0 STC 11 (450I unit) INV OUT = 24.75
DMH 7	RIM = 30.2 CB 18 INV IN = 25.25 CB 17 INV IN = 25.25 STC 7 (450I unit) INV OUT = 25.15
DMH 8	RIM = 30.1 CB 20 INV IN = 25.10 CB 19 INV IN = 25.10 STC 7 (450I unit) INV OUT = 25.00
DMH 9	RIM = 30.0 CB 26 INV IN = 25.00 CB 27 INV IN = 25.00 STC 11 (450I unit) INV OUT = 24.90
STC 7 (450I unit)	RIM = 29.3 DMH 8 INV IN = 24.35 DMH 7 INV IN = 24.35 SWMA 8 INV OUT = 24.25
STC 8 (450I unit)	RIM = 29.3 CB 21 INV IN = 24.00 CB 22 INV IN = 24.00 SWMA 7 INV OUT = 23.90
STC 9 (450I unit)	RIM = 29.3 CB 23 INV IN = 24.00 CB 24 INV IN = 24.00 SWMA 8 INV OUT = 23.90
STC 10 (450I unit)	RIM = 29.3 CB 25 INV IN = 24.90 SWMA 9 INV OUT = 24.80
STC 11 (450I unit)	RIM = 29.5 CB 28 INV IN = 24.40 DMH 9 INV IN = 24.40 SWMA 10 INV OUT = 24.30



DONALD F. BRACKEN, JR.
 CIVIL ENGINEER
 No. 37071
 2-15-18



Prepared By:

BRACKEN ENGINEERING, INC.
 49 HERRING POND ROAD BUZZARDS BAY, MA 02552
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 (fax) 508.833.2282 (www.brackeneng.com)

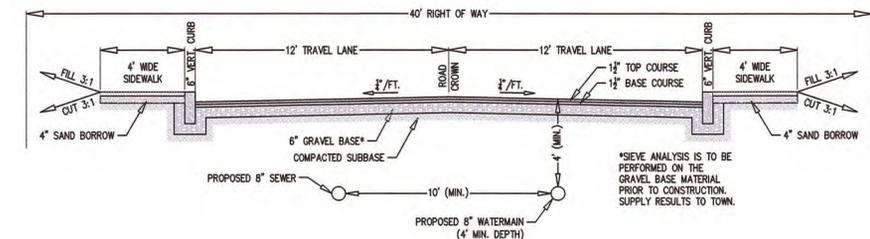
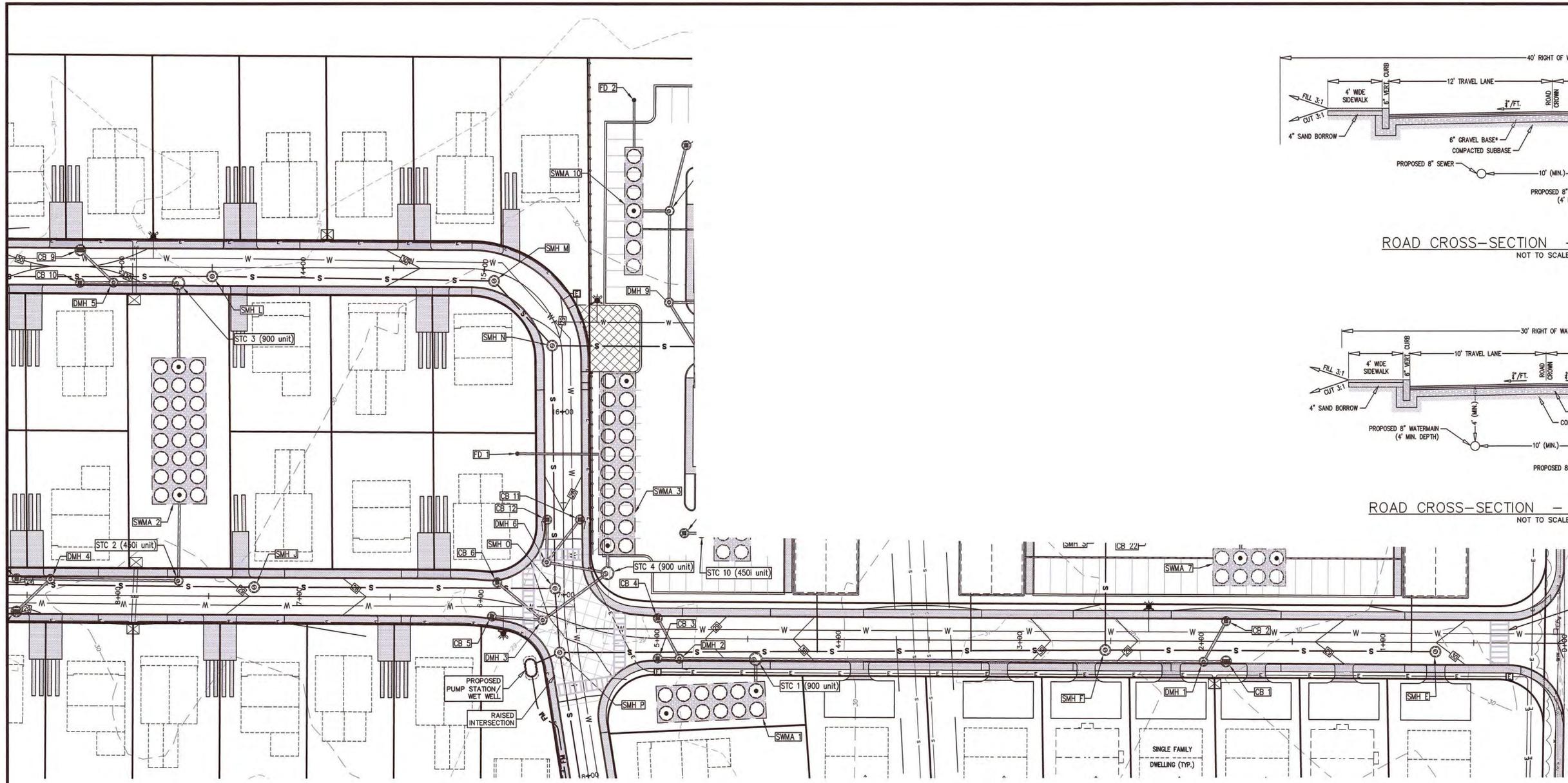
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GRADING & UTILITIES MULTI-FAMILY PARCEL

"SURFSIDE CROSSING"
 A
PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS
 Prepared For:
SURFSIDE CROSSING, LLC
 #3, 5, 7 & 9 SOUTH SHORE ROAD
 MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

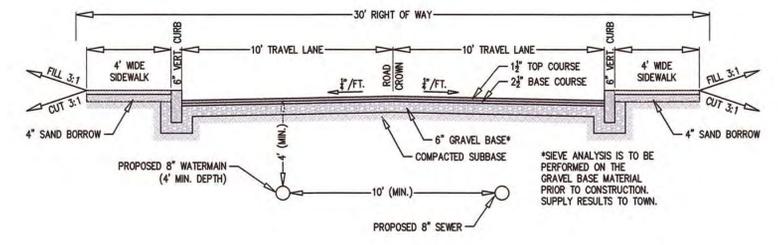
No.	Date	Revision Description	By

Date:	Drawn:	Checked:	Sheet:
FEBRUARY 15, 2018	RMM/ERC/BEI	DFB/AMG	6 of 11

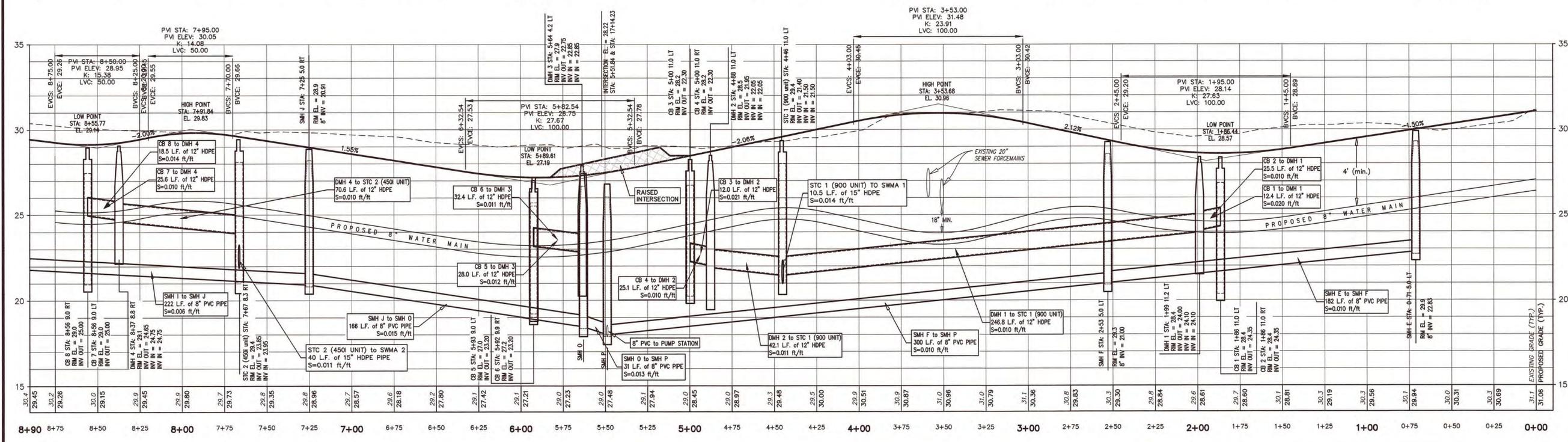
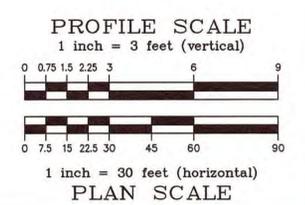
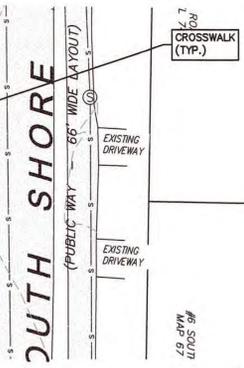
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ROAD CROSS-SECTION - STA: 0+00 TO 5+51.84
NOT TO SCALE



ROAD CROSS-SECTION - STA: 5+51.84 TO 24+39.26
NOT TO SCALE



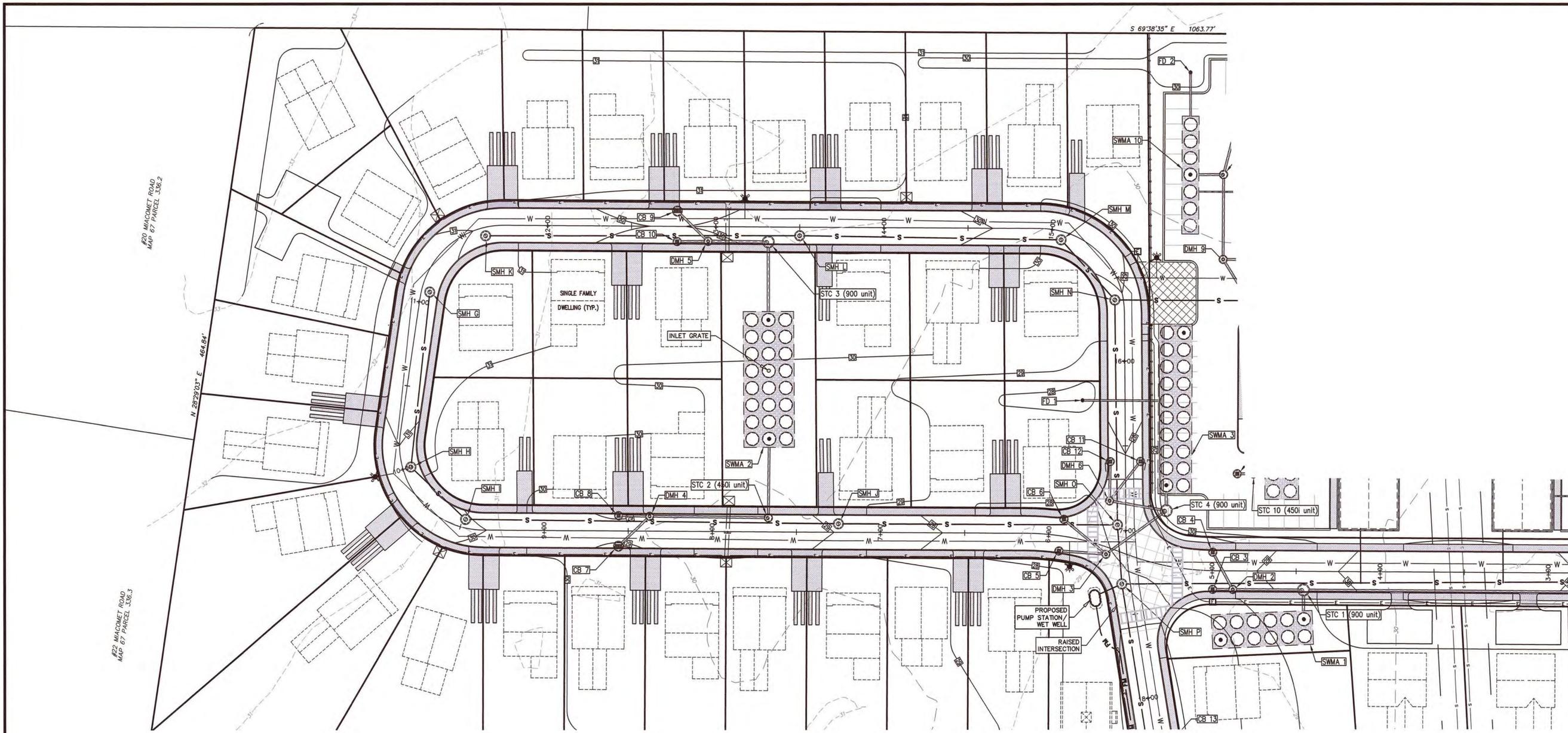
Prepared By:
BRACKEN ENGINEERING, INC.
 49 HERRING POND ROAD, BUZZARDS BAY, MA 02532 (tel) 608.833.0070 (fax) 608.833.2282
 19 OLD SOUTH ROAD, NANTUCKET, MA 02554 (tel) 608.325.0044 (www.brackeneng.com)

Sheet Title:
PLAN, PROFILE and UTILITIES

"SURFSIDE CROSSING"
 A
PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS
 Prepared For:
SURFSIDE CROSSING, LLC
 #3, 5, 7 & 9 SOUTH SHORE ROAD
 MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By
1	FEBRUARY 15, 2018	Drawn: RMM/ERC/BEJ Checked: DFB/AMG	

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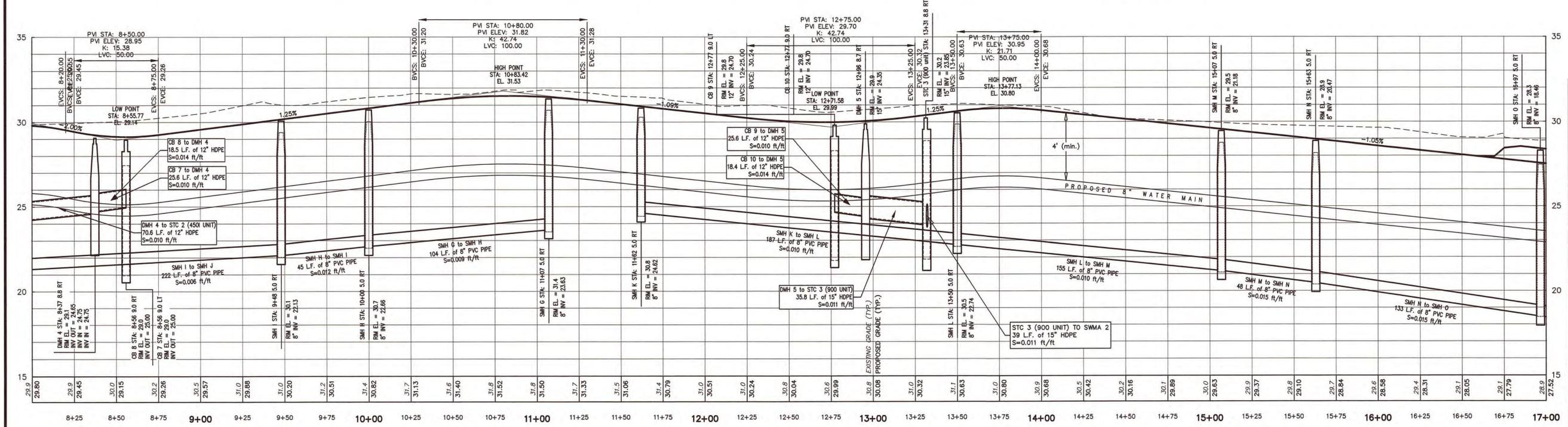
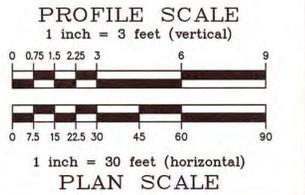


DONALD F. BRACKEN, JR.

 CIVIL ENGINEER

 No. 37071

 2-15-18



Prepared By:

BRACKEN ENGINEERING, INC.

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 19 OLD SOUTH ROAD NANTUCKET, MA 02554 (tel) 608.325.0044 (fax) 608.325.0044 www.brackeneng.com

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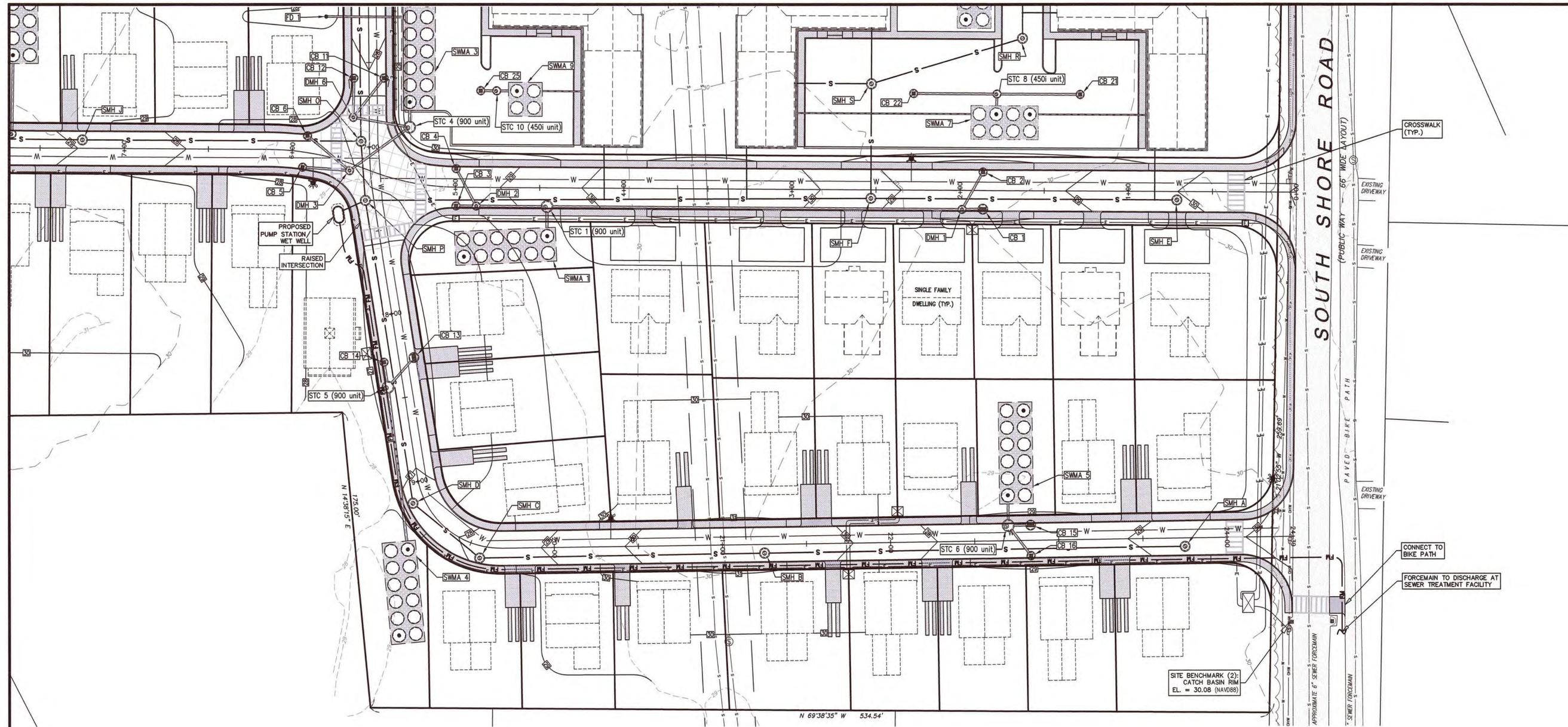
PLAN, PROFILE and UTILITIES

"SURFSIDE CROSSING"
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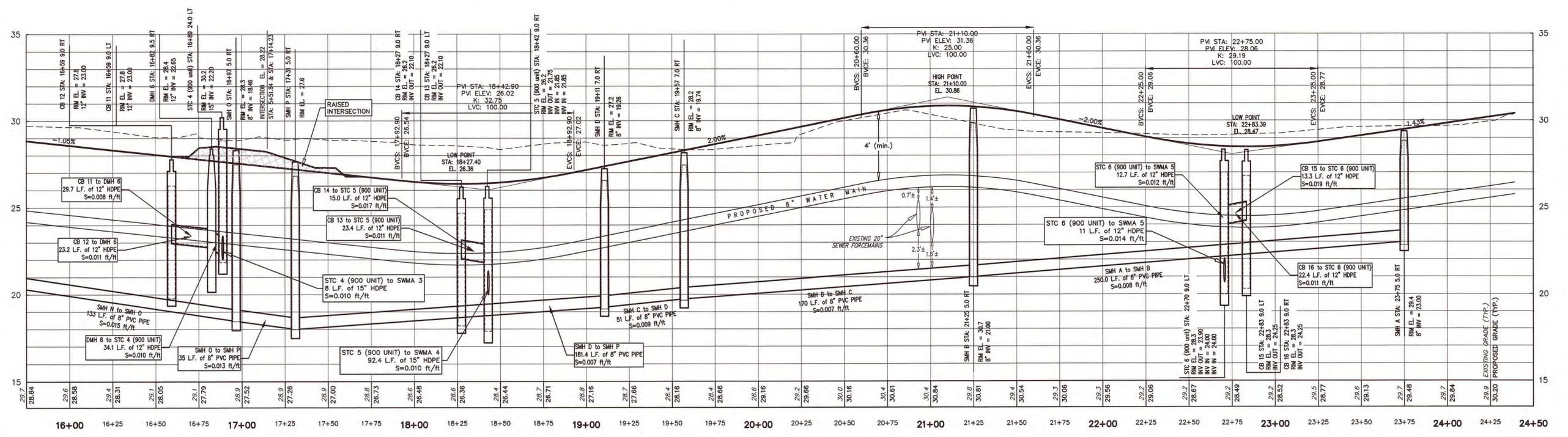
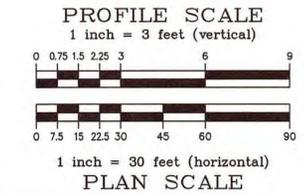
No.	Date	Revision Description	By

Date: FEBRUARY 15, 2018 Drawn: RMM/ERC/BEI Checked: DFB/AMG Sheet: 8 of 11

S:\Projects\Drawings\Nantucket\South Shore RD\3-9 South Shore Road\CD Final\Surfside Crossing - Site Development (v02).dwg



DONALD F. BRACKEN, JR.
 CIVIL ENGINEER
 No. 37071
 State of Massachusetts
 2-15-18



Prepared By:

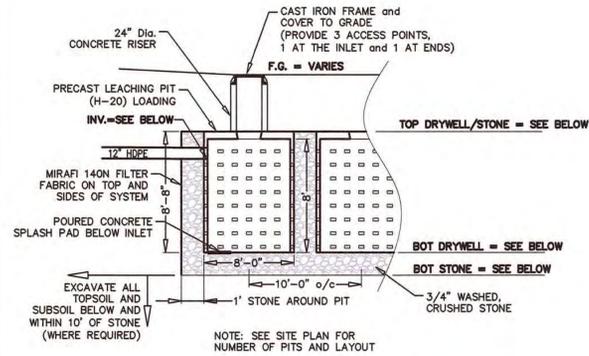
BRACKEN ENGINEERING, INC.
 49 HERRING POND ROAD BUZZARDS BAY, MA 02532 (tel) 508.833.0070 (fax) 508.833.2292
 19 OLD SOUTH ROAD NANTUCKET, MA 02554 (tel) 508.326.0044 (fax) 508.326.0044 www.brackeneng.com

Sheet Title:

PLAN, PROFILE and UTILITIES
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 #3, 5, 7 & 9 SOUTH SHORE ROAD
 MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

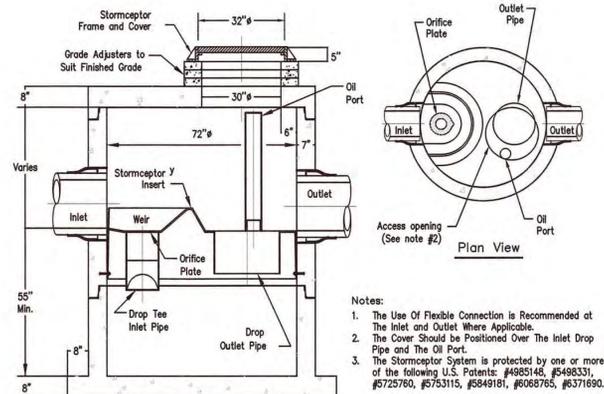
No.	Date	Revision Description	By
1	FEBRUARY 15, 2018	Drawn: RMM/ERC/BEI Checked: DFB/AMG	9 of 11

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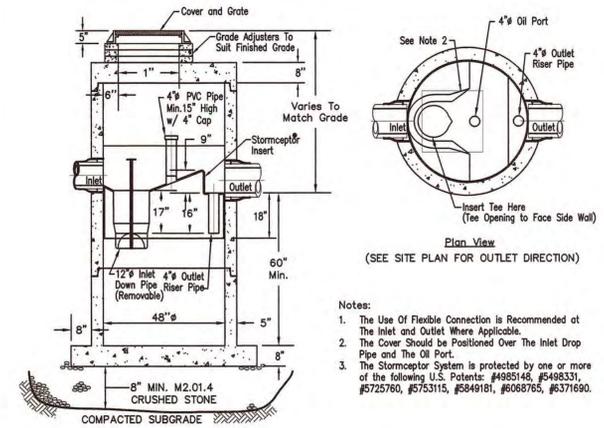


SWMA	TOP DRYWELL	INLET PIPE INVERT	BOTTOM DRYWELL	BOTTOM STONE	FINISHED GRADE	STONE BED DIMENSIONS	# OF DRYWELLS
1	22.92	21.25	14.25	12.25	29±	20'W x 60'L	12
2	25.07	23.40	16.40	15.40	30±	30'W x 80'L	24
3	23.77	22.10	15.10	14.10	30±	20'W x 100'L	20
4	22.42	20.75	13.75	12.75	29±	20'W x 60'L	12
5	25.42	23.75	16.75	15.75	29±	20'W x 60'L	12
6	25.67	24.00	17.00	16.00	31±	20'W x 40'L	8
7	25.47	23.80	16.80	15.80	30±	20'W x 40'L	8
8	25.47	23.80	16.80	15.80	30±	20'W x 40'L	8
9	26.37	24.70	17.70	15.70	30±	20'W x 20'L	4
10	25.82	24.15	17.15	15.15	30±	10'W x 70'L	7

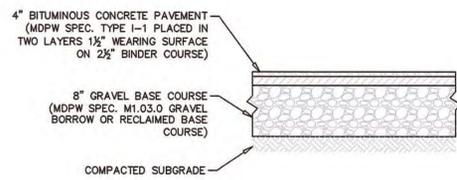
STORMWATER MANAGEMENT AREA DETAIL
NOT TO SCALE



STC 900 PRECAST CONCRETE STORMCEPTOR
NOT TO SCALE

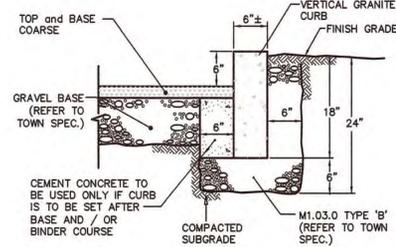


STC 450i PRECAST CONCRETE STORMCEPTOR
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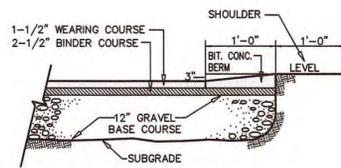


- NOTE:
1. SANDY LOAM and/or LOAMY SAND TOPSOIL MATERIAL SHALL BE EXCAVATED FROM ALL PAVED AREAS PRIOR TO SUB-BASE INSTALLATION.
2. SUB-GRADE (EXISTING MATERIAL) SHALL CONSIST OF INERT MATERIAL THAT IS HARD, DURABLE STONE and/or COARSE SAND, FREE FROM LOAM and CLAY TO A DEPTH NOT LESS THAN 4 FEET BELOW THE FINISH PAVEMENT SURFACE.
3. SUBGRADE FILL SHALL BE COMPACTED TO 95% COMPACTION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. SEE SITE LAYOUT PLAN FOR PAVEMENT WIDTH and LOCATION.
5. SEE GRADING PLAN FOR PAVEMENT SLOPE and CROSS SLOPE.
6. PRIOR TO INSTALLING THE WEARING COURSE, THE EXISTING BINDER COURSE SURFACE SHALL BE SWEEPED COMPLETELY CLEAN BY A STREET SWEEPING MACHINE AND A TACK COAT SHALL BE INSTALLED TO A LEVEL APPROVED BY THE ENGINEER.

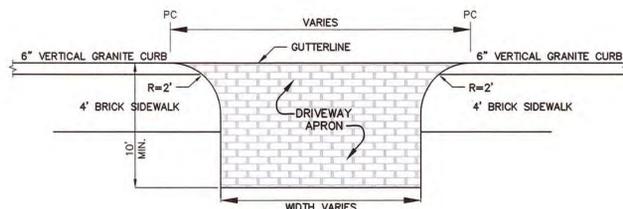
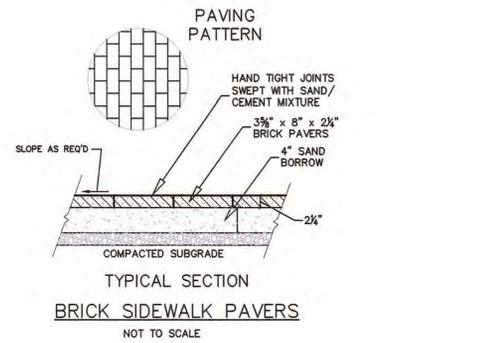
PARKING AREA PAVEMENT SECTION
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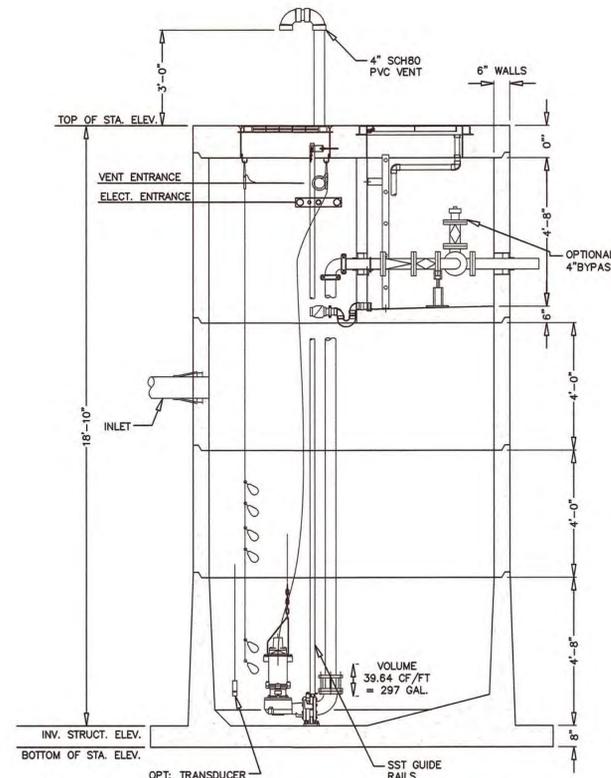
VERTICAL GRANITE CURB
NOT TO SCALE



CAPE COD BERM
NOT TO SCALE

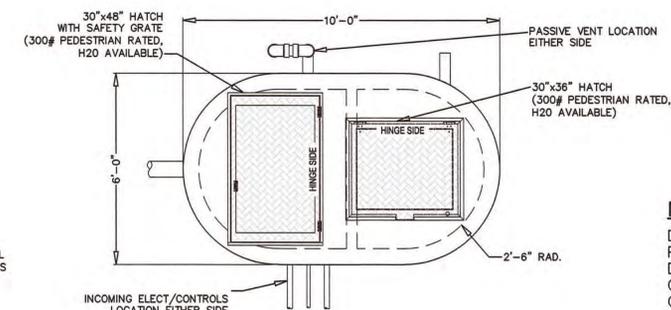


DRIVEWAY ENTRANCE DETAIL
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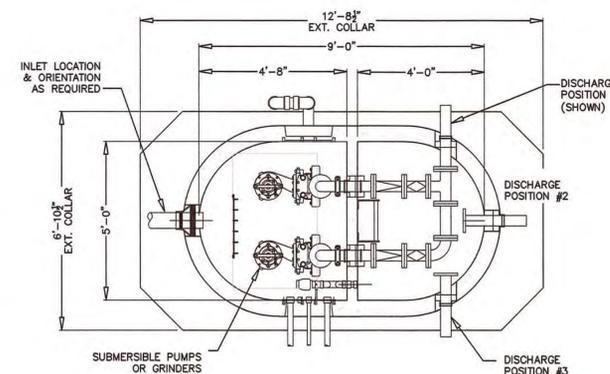


INTERIOR ELEVATION VIEW
RC509 x 18'-10"

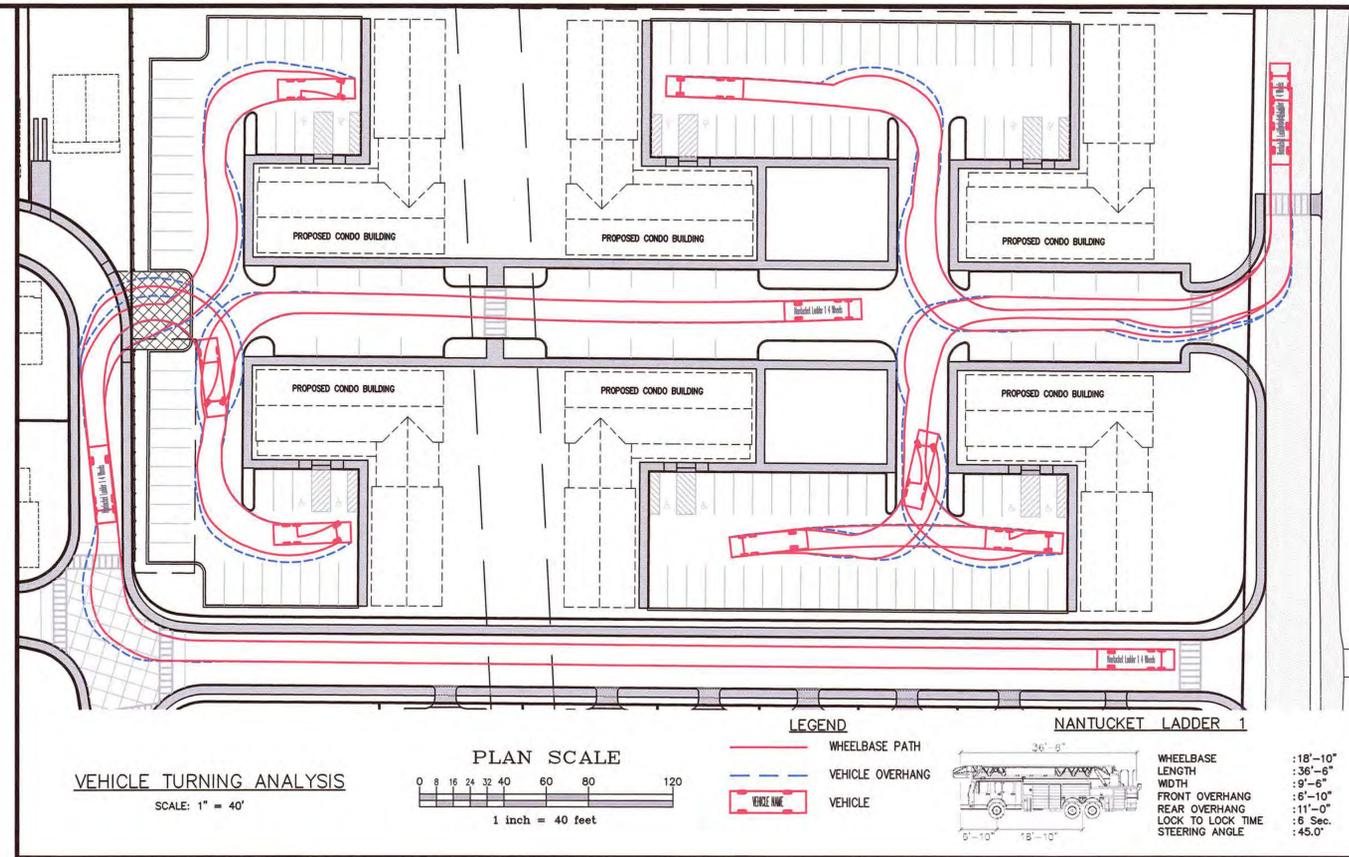
TYPICAL SEWER PUMP STATION DETAIL
NOT TO SCALE



COVER



VAULT SECTION



VEHICLE TURNING ANALYSIS
SCALE: 1" = 40'



NOTE:
DETAILS SHOWN FOR PLANNING AND PERMITTING PURPOSES ONLY, FINAL DETAILS, SPECIFICATIONS, AND CONSTRUCTION NOTES TO BE INCLUDED ON FINAL CONSTRUCTION DRAWINGS.

Prepared By:
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19 OLD SOUTH ROAD NANTUCKET, MA 02554
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Sheet Title:
CONSTRUCTION DETAILS & VEHICLE TURNING ANALYSIS

"SURFSIDE CROSSING"
A
PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS
Prepared For:
SURFSIDE CROSSING, LLC
#3, 5, 7 & 9 SOUTH SHORE ROAD
MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By

Date: FEBRUARY 15, 2018
Drawn: RMM/ERC/BE
Checked: DFB/AMG
Sheet: 10 of 11

Attachment I

“Surfside Crossing” a Proposed 40B Development, prepared by Bracken Engineering, Inc.,

Last Revised March 19, 2019 (100 Unit Alternative)

"SURSIDE CROSSING"

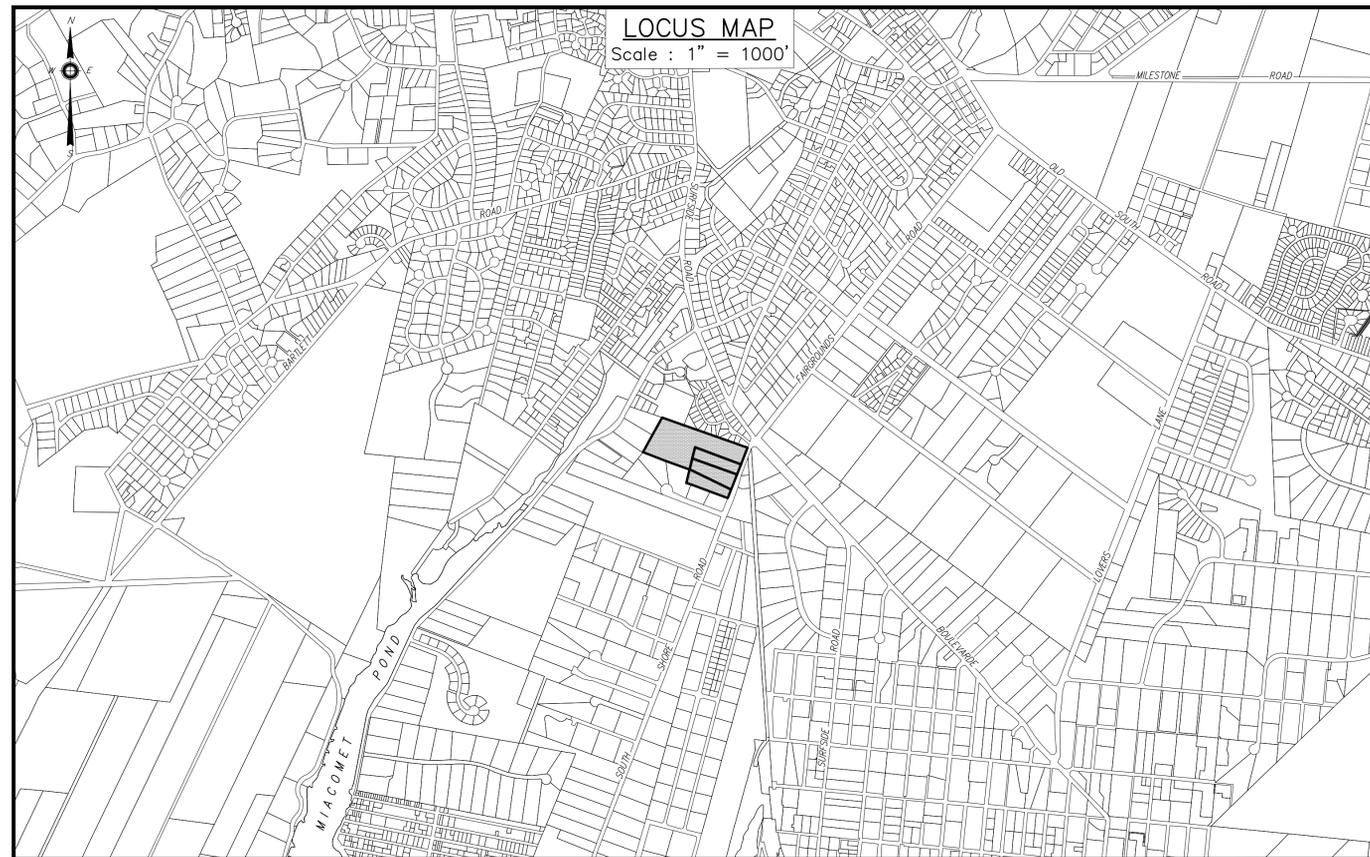
RESERVED 400 DEEPEMENT

IN

NANTUCKET MASSHOUSE

PERMITTING SET
 EROSION 50000
 REISED 50000 ER 50000
 REISED MORTH 500000

PAGE	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS
3	LOTING PLAN
4	LAYOUT PLAN MULTI-FAMILY PARCEL
5	GRADING & UTILITIES MULTI-FAMILY PARCEL
6	GRADING & DRAINAGE SUBDIVISION PARCELS
7	PLAN AND PROFILE ROAD A & ROAD B
8	PLAN AND PROFILE ROAD B
9	PLAN AND PROFILE ROAD C & ROAD D
10	PLAN AND PROFILE SOUTH SHORE ROAD & CONSTRUCTION NOTES
11	EROSION & SEDIMENTATION CONTROL PLAN
12	CONSTRUCTION DETAILS & VEHICLE TURNING ANALYSIS
13	CONSTRUCTION DETAILS
14	CONSTRUCTION DETAILS



REGISTERED ENGINEER AND SURVEYOR

BRACKEN ENGINEERING, INC.
 49 HERRING POND ROAD BUZZARDS BAY, MA 02532
 19 OLD SOUTH ROAD NANTUCKET, MA 02554
 (Tel) 508.833.0070 (Tel) 508.325.0044
 (Fax) 508.833.2282 www.brackeneng.com

REGISTERED

DESIGN ASSOCIATES INC.
 1035 CAMBRIDGE STREET
 CAMBRIDGE, MA 02141
 TEL: 617-661-9082
 FAX: 617-6661-2550

LANDSCAPE DESIGNER

AHERN LLC
 LANDSCAPE DESIGN STUDIO
 PO Box 2213, Nantucket MA 02584
 T (508) 333-5138 F (508) 325-4616
 design@ahernllc.com

REGISTERED PROFESSIONAL

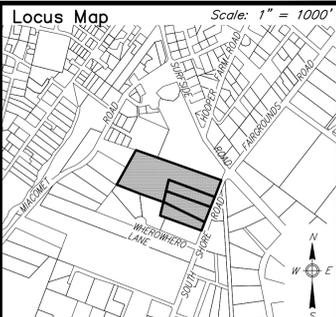
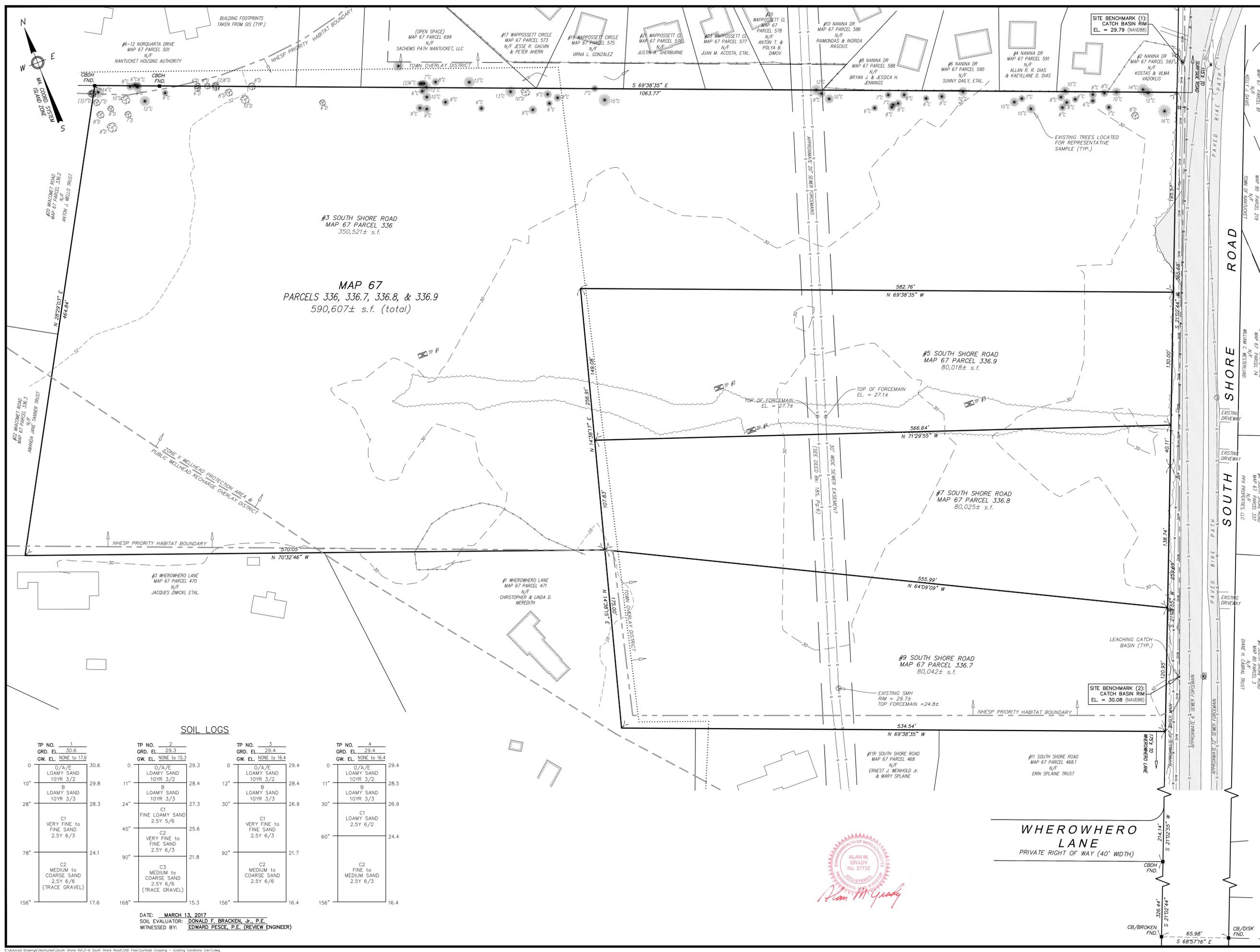
MDM TRANSPORTATION CONSULTANTS, INC.
 PLANNERS & ENGINEERS

28 Lord Road, Suite 280
 Marlborough, MA 01752
 Tel: (508) 303-0370
 Fax: (508) 303-0371

REGISTERED

SURFSIDE CROSSING LLC
 c/o JAMIE FEELEY & JOSH POSNER
 37 OLD SOUTH ROAD, UNIT #6
 NANTUCKET, MA 02554

NO.	DATE	DESCRIPTION	BY
2	3/19/19	GENERAL REDESIGN	RMM
1	10/25/18	GENERAL REDESIGN	RMM



- Notes**
- LOCUS: #3, #5, #7, & #9 SOUTH SHORE ROAD MAP 67 PARCELS 336, 336.7, 336.8, & 336.9
 - OWNER: SURFSIDE CROSSING LLC c/o JAMIE FEELEY & JOSH POSNER 37 OLD SOUTH ROAD, UNIT #6 NANTUCKET, MA 02554
 - DEED REF: Bk: 1612 Pg: 62
 - PLAN REF: Bk: 25 Pg: 50 (LOTS 1-4)
 - LOCUS DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP No. 25019C-0151-G dated 06/09/2014.
 - LOCUS DOES FALL WITHIN THE NATURAL HERITAGE and ENDANGERED SPECIES PROGRAM (NHPSP) AREAS OF PRIORITY HABITATS OF RARE SPECIES, BUT NOT ESTIMATED HABITATS OF RARE WILDLIFE.
 - LOCUS PARTIALLY FALLS WITHIN THE TOWN OVERLAY DISTRICT.
 - LOCUS FALLS WITHIN THE CORE SEWER DISTRICT.
 - LOCUS PARTIALLY FALLS WITHIN A ZONE II WELLHEAD PROTECTION AREA.
 - LOCUS PARTIALLY FALLS WITHIN THE PUBLIC WELLHEAD RECHARGE OVERLAY DISTRICT.
 - AN ON THE GROUND SURVEY WAS PERFORMED BY THIS FIRM BETWEEN 9/22/17 AND 10/18/18.
 - EXISTING SEWER FORCE MAIN LOCATIONS AND SIZES TO BE CONFIRMED WITH THE NANTUCKET SEWER DEPARTMENT.
- PLAN SCALE**
0 8 16 24 32 40 60 80 120
1 inch = 40 feet

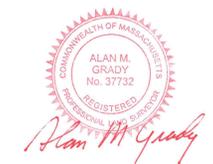
ZONE: LUG-2 REQUIRED
 LOT AREA: 80,000 s.f.
 FRONTAGE: 150'
 FRONT YARD: 35'
 SIDE/REAR YARD: 15'
 GROUND COVER: 4% (MAX)

Prepared By:
BRACKEN ENGINEERING, INC.
 49 HERRING POND ROAD BUZZARDS BAY, MA 02532 (tel) 508.833.0070 (fax) 508.833.2282
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SOIL LOGS

TP NO.	1	2	3	4
GRD. EL.	30.6	29.3	29.4	29.4
GW. EL.	NONE to 17.6	NONE to 15.3	NONE to 16.4	NONE to 16.4
0"	O/A/E LOAMY SAND 10YR 3/2	O/A/E LOAMY SAND 10YR 3/2	O/A/E LOAMY SAND 10YR 3/2	O/A/E LOAMY SAND 10YR 3/2
10"	B LOAMY SAND 10YR 3/3	B LOAMY SAND 10YR 3/3	B LOAMY SAND 10YR 3/3	B LOAMY SAND 10YR 3/3
28"	C1 VERY FINE to FINE SAND 2.5Y 6/3	C1 FINE LOAMY SAND 2.5Y 5/6	C1 VERY FINE to FINE SAND 2.5Y 6/3	C1 LOAMY SAND 2.5Y 6/2
78"	C2 MEDIUM to COARSE SAND 2.5Y 6/6 (TRACE GRAVEL)	C2 VERY FINE to FINE SAND 2.5Y 6/3	C2 MEDIUM to COARSE SAND 2.5Y 6/6 (TRACE GRAVEL)	C2 FINE to MEDIUM SAND 2.5Y 6/3
156"		168"	156"	164"

DATE: MARCH 13, 2017
 SOIL EVALUATOR: DONALD F. BRACKEN, JR., P.E.
 WITNESSED BY: EDWARD PESCE, P.E. (REVIEW ENGINEER)



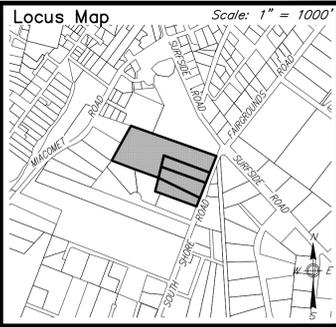
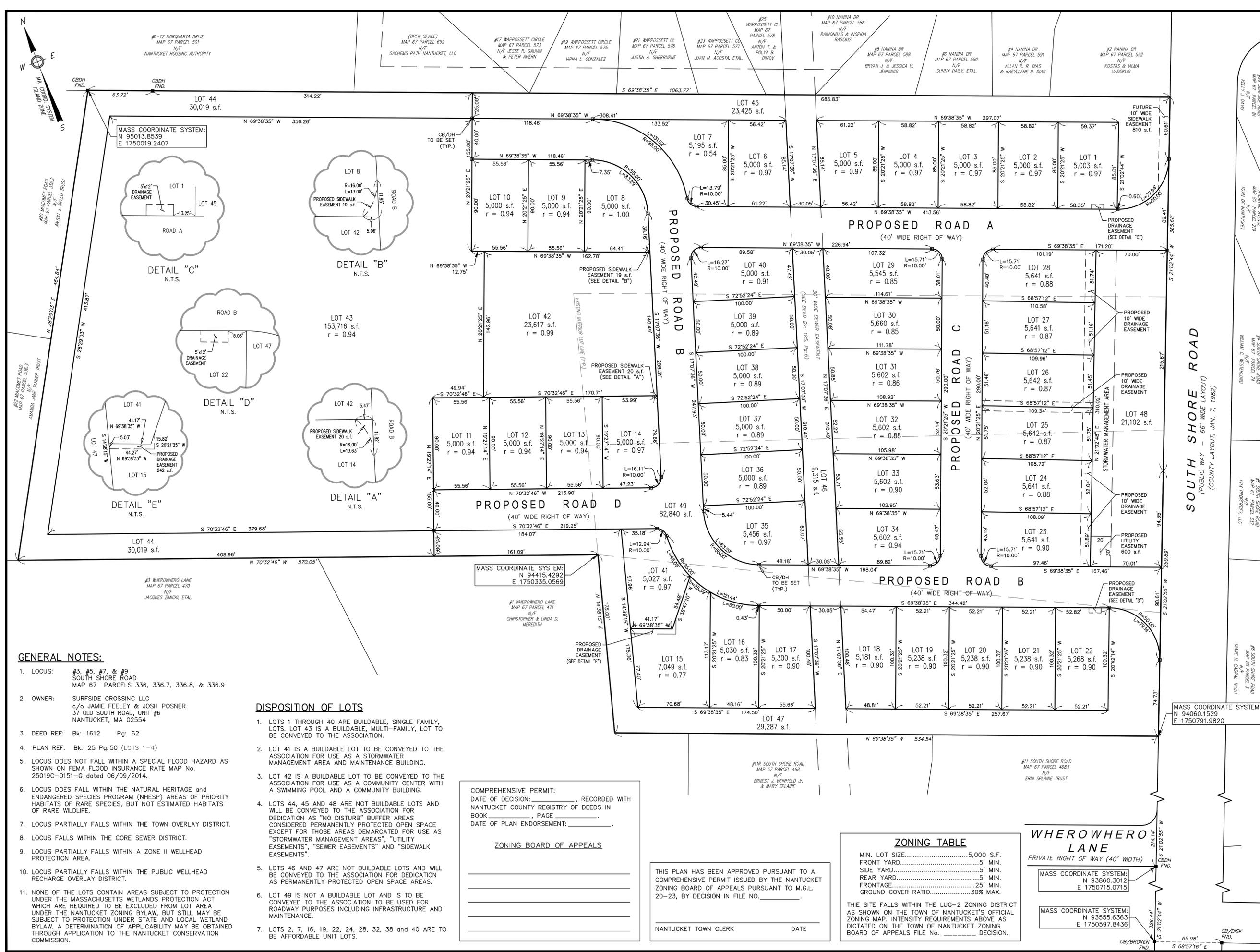
EXISTING CONDITIONS

"SURFSIDE CROSSING"
 A
PROPOSED 40B DEVELOPMENT
 IN NANTUCKET, MASSACHUSETTS
 Prepared For:
SURFSIDE CROSSING, LLC
 #3, 5, 7 & 9 SOUTH SHORE ROAD
 MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By
2	3/19/19	GENERAL REDESIGN	RMM
1	10/25/18	GENERAL REDESIGN	RMM

No. _____ Date _____ Revision Description _____ By _____

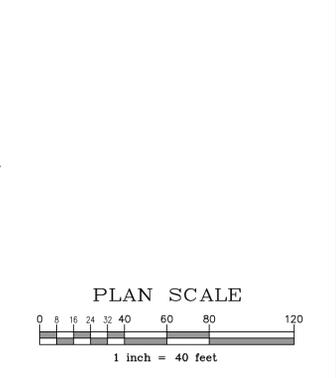
Date: FEBRUARY 15, 2018 Drawn: RMM/ERC/BCB Checked: DFB/AMG Sheet: 2 of 14



RESERVED FOR REGISTRY USE

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTRY OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

ALAN M. GRADY, PLS
MASSACHUSETTS REG.
No. 37732



- GENERAL NOTES:**
- LOCUS: #3, #5, #7, & #9 SOUTH SHORE ROAD MAP 67 PARCELS 336, 336.7, 336.8, & 336.9
 - OWNER: SURFSIDE CROSSING LLC c/o JAMIE FEELEY & JOSH POSNER 37 OLD SOUTH ROAD, UNIT #6 NANTUCKET, MA 02554
 - DEED REF: Bk: 1612 Pg: 62
 - PLAN REF: Bk: 25 Pg: 50 (LOTS 1-4)
 - LOCUS DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP No. 25019C-0151-G dated 06/09/2014.
 - LOCUS DOES FALL WITHIN THE NATURAL HERITAGE and ENDANGERED SPECIES PROGRAM (NHESP) AREAS OF PRIORITY HABITATS OF RARE SPECIES, BUT NOT ESTIMATED HABITATS OF RARE WILDLIFE.
 - LOCUS PARTIALLY FALLS WITHIN THE TOWN OVERLAY DISTRICT.
 - LOCUS FALLS WITHIN THE CORE SEWER DISTRICT.
 - LOCUS PARTIALLY FALLS WITHIN A ZONE II WELLHEAD PROTECTION AREA.
 - LOCUS PARTIALLY FALLS WITHIN THE PUBLIC WELLHEAD RECHARGE OVERLAY DISTRICT.
 - NONE OF THE LOTS CONTAIN AREAS SUBJECT TO PROTECTION UNDER THE MASSACHUSETTS WETLANDS PROTECTION ACT WHICH ARE REQUIRED TO BE EXCLUDED FROM LOT AREA UNDER THE NANTUCKET ZONING BYLAW, BUT STILL MAY BE SUBJECT TO PROTECTION UNDER STATE AND LOCAL WETLAND BYLAW. A DETERMINATION OF APPLICABILITY MAY BE OBTAINED THROUGH APPLICATION TO THE NANTUCKET CONSERVATION COMMISSION.

- DISPOSITION OF LOTS**
- LOTS 1 THROUGH 40 ARE BUILDABLE, SINGLE FAMILY, LOTS. LOT 43 IS A BUILDABLE, MULTI-FAMILY, LOT TO BE CONVEYED TO THE ASSOCIATION.
 - LOT 41 IS A BUILDABLE LOT TO BE CONVEYED TO THE ASSOCIATION FOR USE AS A STORMWATER MANAGEMENT AREA AND MAINTENANCE BUILDING.
 - LOT 42 IS A BUILDABLE LOT TO BE CONVEYED TO THE ASSOCIATION FOR USE AS A COMMUNITY CENTER WITH A SWIMMING POOL AND A COMMUNITY BUILDING.
 - LOTS 44, 45 AND 48 ARE NOT BUILDABLE LOTS AND WILL BE CONVEYED TO THE ASSOCIATION FOR DEDICATION AS "NO DISTURB" BUFFER AREAS CONSIDERED PERMANENTLY PROTECTED OPEN SPACE EXCEPT FOR THOSE AREAS DEMARCATED FOR USE AS "STORMWATER MANAGEMENT AREAS", "UTILITY EASEMENTS", "SEWER EASEMENTS" AND "SIDEWALK EASEMENTS".
 - LOTS 46 AND 47 ARE NOT BUILDABLE LOTS AND WILL BE CONVEYED TO THE ASSOCIATION FOR DEDICATION AS PERMANENTLY PROTECTED OPEN SPACE AREAS.
 - LOT 49 IS NOT A BUILDABLE LOT AND IS TO BE CONVEYED TO THE ASSOCIATION TO BE USED FOR ROADWAY PURPOSES INCLUDING INFRASTRUCTURE AND MAINTENANCE.
 - LOTS 2, 7, 16, 19, 22, 24, 28, 32, 38 and 40 ARE TO BE AFFORDABLE UNIT LOTS.

COMPREHENSIVE PERMIT:
DATE OF DECISION: _____, RECORDED WITH NANTUCKET COUNTY REGISTRY OF DEEDS IN BOOK _____, PAGE _____.
DATE OF PLAN ENDORSEMENT: _____.

ZONING BOARD OF APPEALS

THIS PLAN HAS BEEN APPROVED PURSUANT TO A COMPREHENSIVE PERMIT ISSUED BY THE NANTUCKET ZONING BOARD OF APPEALS PURSUANT TO M.G.L. 20-23, BY DECISION IN FILE NO. _____.

NANTUCKET TOWN CLERK _____ DATE _____

ZONING TABLE

MIN. LOT SIZE.....	5,000 S.F.
FRONT YARD.....	5' MIN.
SIDE YARD.....	5' MIN.
REAR YARD.....	5' MIN.
FRONTAGE.....	25' MIN.
GROUND COVER RATIO.....	30% MAX.

THIS SITE FALLS WITHIN THE LUG-2 ZONING DISTRICT AS SHOWN ON THE TOWN OF NANTUCKET'S OFFICIAL ZONING MAP. INTENSITY REQUIREMENTS ABOVE AS DICTATED ON THE TOWN OF NANTUCKET ZONING BOARD OF APPEALS FILE NO. _____ DECISION.

WHEROWHERO LANE
PRIVATE RIGHT OF WAY (40' WIDTH)

MASS COORDINATE SYSTEM:
N 93860.3012
E 1750715.0715

MASS COORDINATE SYSTEM:
N 93555.6363
E 1750597.8436

Prepared By:
BRACKEN ENGINEERING, INC.
49 HERRING POND ROAD BUZZARDS BAY, MA 02552 (tel) 508.833.0070 (fax) 508.833.2282
19 OLD SOUTH ROAD NANTUCKET, MA 02554 (tel) 508.325.0044 (www.brackeneng.com)

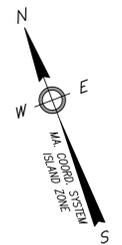
Sheet Title:
LOTING PLAN

"SURFSIDE CROSSING"
A
PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS
Prepared For:
SURFSIDE CROSSING, LLC
#3, 5, 7 & 9 SOUTH SHORE ROAD MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By
2	3/19/19	GENERAL REDESIGN	RMM
1	10/25/18	GENERAL REDESIGN	RMM

Date: FEBRUARY 15, 2018 [Drawn: RMM/ERC/BJE] [Checked: DFB/AMG] [Sheet: 3 of 14]

ISSUED FOR PERMIT REVIEW



LOT 44
30,019 s.f.

LOT 45
23,425 s.f.

PROPOSED ROAD B
(40' WIDE RIGHT OF WAY)

LOT 43
153,716 s.f.

LOT 42
23,617 s.f.

PROPOSED CONDO BUILDING "E"
4,476 s.f.
12 UNITS

PROPOSED CONDO BUILDING "D"
4,476 s.f.
12 UNITS

TYPE "D"
1,201 s.f.

TYPE "A"
1,383 s.f.

TYPE "B"
1,201 s.f.

TYPE "A"
1,383 s.f.

LOT 44
30,019 s.f.

LOT 47
29,287 s.f.

PROPOSED ROAD D
(40' WIDE RIGHT OF WAY)

PARKING SUMMARY
per §139-18

REQUIRED PARKING:

- 1 SPACE PER CONDOMINIUM BEDROOM:
(BASED UPON GARAGE APARTMENT PARKING REQ.)
120 BEDROOMS PROPOSED = 120 SPACES REQUIRED
- 2 SPACES PER SINGLE FAMILY DWELLING:
40 DWELLINGS PROPOSED = 80 SPACES REQUIRED

TOTAL REQUIRED PARKING: = 200 SPACES

PROVIDED PARKING:

- 124 SPACES (CONDO AREA)
- 20 SPACES (COMMUNITY BUILDING)
- 20 SPACES (OVERFLOW/ON-STREET)
- 80 SPACES (INDIVIDUAL SINGLE FAMILY LOTS)

TOTAL PROVIDED PARKING: = 244 SPACES

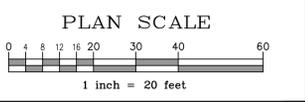
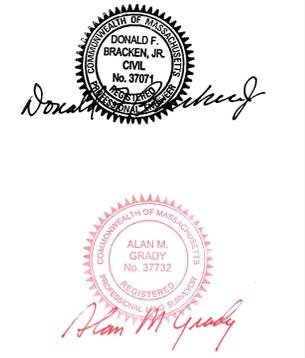
ADA PARKING SUMMARY
per §521 CMR 23.2.1

REQUIRED:

- TOTAL CONDO PARKING SPACES = 120
- MIN. ACCESSIBLE SPACES REQUIRED = 5
(MIN. OF 1 VAN ACCESSIBLE)

PROVIDED:

- (8) ACCESSIBLE SPACES TOTAL
- (4) VAN ACCESSIBLE SPACE



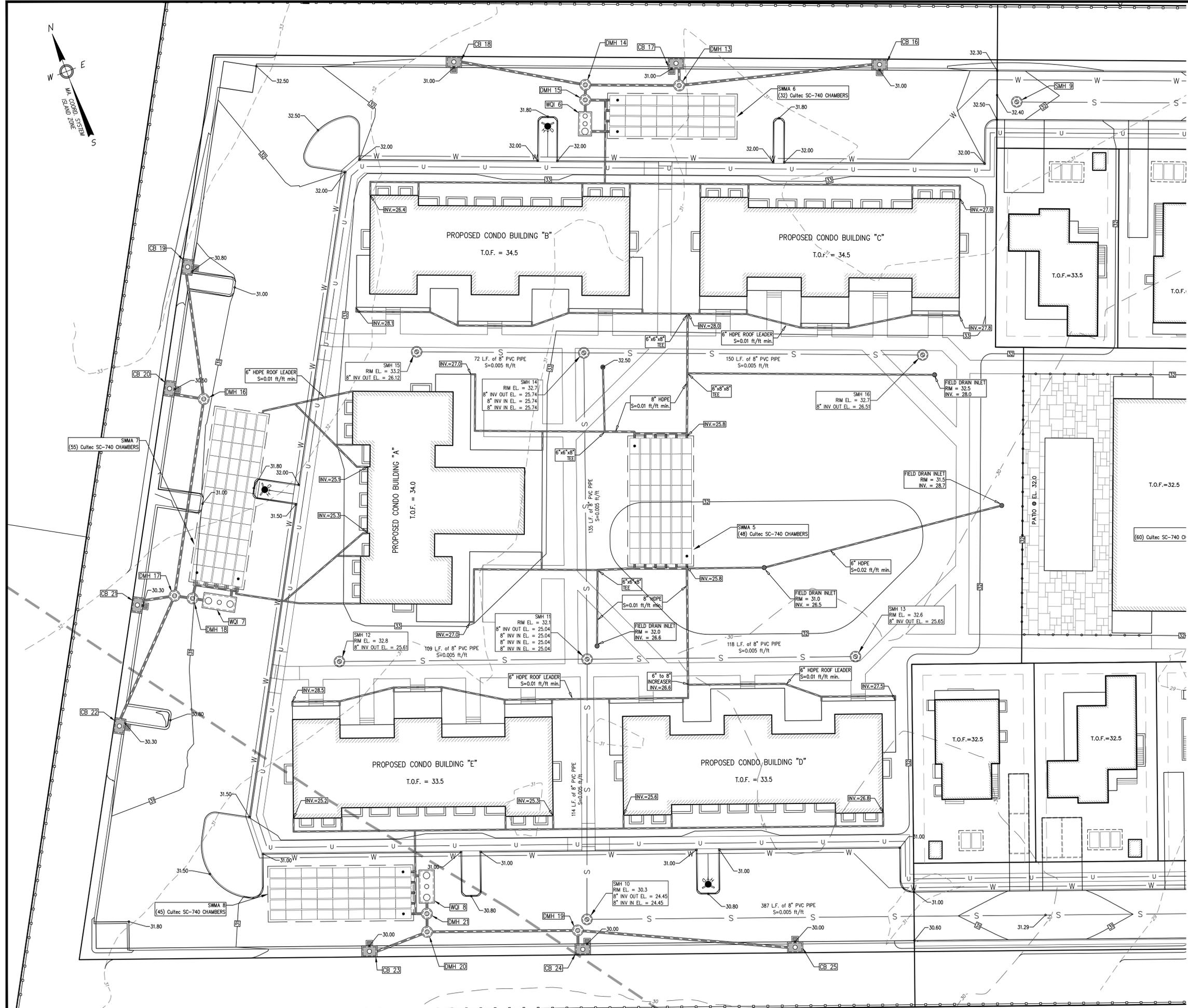
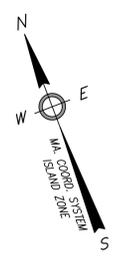
Prepared By:
BRACKEN ENGINEERING, INC.
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Sheet Title:
LAYOUT PLAN MULTI-FAMILY PARCEL

"SURFSIDE CROSSING"
A
PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS
Prepared For:
SURFSIDE CROSSING, LLC
#3, 5, 7 & 9 SOUTH SHORE ROAD
MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

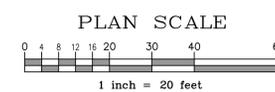
No.	Date	Revision Description	By
2	3/19/19	GENERAL REDESIGN	RMM
1	10/25/18	GENERAL REDESIGN	RMM
60			

Date: FEBRUARY 15, 2018 Drawn: RMM/ERC/BEI Checked: DFB/AMG Sheet: 4 of 14



STRUCTURE NAME	STRUCTURE DETAILS
CB 16	RIM = 31.0 INV OUT (DMH 13) = 27.30
CB 17	RIM = 31.0 INV OUT (DMH 13) = 26.50
CB 18	RIM = 31.0 INV OUT (DMH 14) = 27.30
CB 19	RIM = 30.8 INV OUT (DMH 16) = 27.00
CB 20	RIM = 30.5 INV OUT (DMH 16) = 26.60
CB 21	RIM = 30.3 INV OUT (DMH 17) = 25.60
CB 22	RIM = 30.3 INV OUT (DMH 17) = 26.50
CB 23	RIM = 30.0 INV OUT (DMH 20) = 25.00
CB 24	RIM = 30.0 INV OUT (DMH 19) = 25.70
CB 25	RIM = 30.0 INV OUT (DMH 19) = 26.40
DMH 13	RIM = 31.2 INV IN (CB 16) = 26.40 INV IN (CB 17) = 26.40 INV OUT (DMH 14) = 26.30
DMH 14	RIM = 31.5 INV IN (DMH 13) = 25.85 INV IN (CB 18) = 25.85 INV OUT (DMH 15) = 25.75
DMH 15	RIM = 31.6 INV IN (DMH 14) = 25.60 INV OUT (WQI 6) = 25.60 INV OUT (SWMA 6) = 24.80
DMH 16	RIM = 30.9 INV IN (CB 20) = 26.40 INV IN (CB 19) = 26.40 INV OUT (DMH 17) = 26.30
DMH 17	RIM = 30.7 INV IN (CB 22) = 25.40 INV IN (CB 21) = 25.40 INV OUT (DMH 16) = 25.40 INV OUT (DMH 18) = 25.40
DMH 18	RIM = 31.0 INV IN (DMH 17) = 25.00 INV OUT (WQI 7) = 25.00 INV OUT (SWMA 7) = 24.20
DMH 19	RIM = 30.1 INV IN (CB 25) = 25.50 INV IN (CB 24) = 25.50 INV OUT (DMH 20) = 25.40
DMH 20	RIM = 30.4 INV IN (CB 23) = 24.70 INV IN (DMH 19) = 24.70 INV OUT (DMH 21) = 24.60
DMH 21	RIM = 30.5 INV IN (DMH 20) = 24.40 INV OUT (WQI 8) = 24.40 INV OUT (SWMA 8) = 23.60
WQI 6	RIM = 31.7 INV IN (DMH 15) = 25.30 INV OUT (SWMA 6) = 24.80
WQI 7	RIM = 31.2 INV IN (DMH 18) = 24.70 INV OUT (SWMA 7) = 24.20
WQI 8	RIM = 30.6 INV IN (DMH 21) = 24.30 INV OUT (SWMA 8) = 23.80

PIPE NAME	SIZE	LENGTH	SLOPE	INV. UP	INV. DOWN
CB 16 to DMH 13	10"	88.1'	1.02%	27.30	26.40
CB 17 to DMH 13	10"	7.6'	1.32%	26.50	26.40
CB 18 to DMH 14	10"	57.2'	2.53%	27.30	25.85
CB 19 to DMH 16	10"	56.8'	1.06%	27.00	26.40
CB 20 to DMH 16	10"	13.6'	1.47%	26.60	26.40
CB 21 to DMH 17	10"	14.3'	1.40%	25.60	25.40
CB 22 to DMH 17	10"	60.7'	1.81%	26.50	25.40
CB 23 to DMH 20	10"	24.4'	1.23%	25.00	24.70
CB 24 to DMH 19	10"	6.1'	3.30%	25.70	25.50
CB 25 to DMH 19	10"	95.6'	0.94%	26.40	25.50
DMH 13 to DMH 14	10"	42.7'	1.05%	26.30	25.85
DMH 14 to DMH 15	10"	6.8'	2.21%	25.75	25.60
DMH 15 to SWMA 6	10"	9.3'	2.14%	24.80	24.60
DMH 15 to WQI 6	10"	7.3'	4.11%	25.60	25.30
DMH 16 to DMH 17	10"	90.0'	1.00%	26.30	25.40
DMH 17 to DMH 18	10"	8.3'	3.64%	25.30	25.00
DMH 18 to SWMA 7	10"	6.6'	4.55%	24.20	23.90
DMH 18 to WQI 7	10"	7.3'	4.10%	25.00	24.70
DMH 19 to DMH 20	10"	68.5'	1.02%	25.40	24.70
DMH 20 to DMH 21	10"	8.3'	2.42%	24.60	24.40
DMH 21 to SWMA 8	10"	4.7'	4.24%	23.60	23.40
DMH 21 WQI 8	10"	7.3'	1.37%	24.40	24.30
WQI 6 to SWMA 6	10"	9.2'	2.18%	24.80	24.60
WQI 7 to SWMA 7	10"	6.3'	4.77%	24.20	23.90
WQI 8 to SWMA 8	10"	4.7'	8.43%	23.80	23.40



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Sheet Title:
GRADING & UTILITIES MULTI-FAMILY PARCEL

"SURFSIDE CROSSING"
 A
PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS
 Prepared For:
SURFSIDE CROSSING, LLC
 #3, 5, 7 & 9 SOUTH SHORE ROAD
 MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By
2	3/19/19	GENERAL REDESIGN	RMM
1	10/25/18	GENERAL REDESIGN	RMM

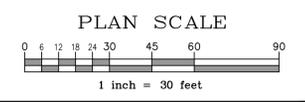
Date: FEBRUARY 15, 2018 Drawn: RMM/ERC/BEI Checked: DFB/AMG Sheet: 5 of 14

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STRUCTURE NAME	STRUCTURE DETAILS
CB 1	RIM = 28.6 INV OUT (DMH 1) = 25.00
CB 2	RIM = 28.6 INV OUT (DMH 2) = 22.70
CB 3	RIM = 29.2 INV OUT (DMH 1) = 25.60
CB 4	RIM = 29.5 INV OUT (DMH 4) = 25.90
CB 5	RIM = 29.3 INV OUT (DMH 3) = 25.70
CB 6	RIM = 29.3 INV OUT (DMH 3) = 25.70
CB 7	RIM = 29.3 INV OUT (DMH 4) = 24.75
CB 8	RIM = 29.3 INV OUT (DMH 6) = 25.00
CB 9	RIM = 29.3 INV OUT (DMH 6) = 25.00
CB 10	RIM = 29.2 INV OUT (DMH 6) = 25.00
CB 11	RIM = 29.1 INV OUT (DMH 8) = 25.00
CB 12	RIM = 28.6 INV OUT (DMH 8) = 24.77
CB 13	RIM = 28.6 INV OUT (DMH 8) = 24.77
CB 14	RIM = 27.5 INV OUT (DMH 11) = 23.90
CB 15	RIM = 27.5 INV OUT (DMH 11) = 23.90
DMH 1	RIM = 29.3 INV IN (CB 1) = 24.46 INV IN (CB 3) = 24.46 INV OUT (DMH 2) = 24.36
DMH 2	RIM = 29.3 INV IN (DMH 1) = 22.40 INV IN (CB 2) = 22.40 INV OUT (SWMA 1) = 21.80 INV OUT (WQI 1) = 22.40
DMH 3	RIM = 29.9 INV IN (CB 6) = 25.30 INV IN (CB 5) = 25.30 INV OUT (DMH 4) = 25.20
DMH 4	RIM = 30.2 INV IN (CB 4) = 24.65 INV IN (CB 7) = 24.65 INV IN (DMH 3) = 24.65 INV OUT (DMH 5) = 24.30
DMH 5	RIM = 30.3 INV IN (DMH 4) = 23.80 INV OUT (SWMA 2) = 23.00 INV OUT (WQI 2) = 23.80
DMH 6	RIM = 29.4 INV IN (CB 8) = 24.60 INV IN (CB 9) = 24.60 INV IN (CB 10) = 24.60 INV OUT (DMH 7) = 24.50
DMH 7	RIM = 28.6 INV IN (DMH 6) = 23.80 INV OUT (SWMA 3) = 23.00 INV OUT (WQI 3) = 23.80
DMH 8	RIM = 29.1 INV IN (CB 13) = 24.49 INV IN (CB 12) = 24.49 INV IN (CB 11) = 24.49 INV OUT (DMH 9) = 24.40
DMH 9	RIM = 29.9 INV IN (DMH 8) = 23.90 INV OUT (DMH 10) = 23.80
DMH 10	RIM = 29.9 INV IN (DMH 9) = 23.60 INV OUT (SWMA 4) = 22.80 INV OUT (WQI 4) = 23.60
DMH 11	RIM = 28.0 INV IN (CB 14) = 23.80 INV IN (CB 15) = 23.80 INV OUT (DMH 12) = 23.10
DMH 12	RIM = 29.9 INV IN (DMH 11) = 22.30 INV OUT (SWMA 1) = 21.50 INV OUT (WQI 5) = 22.30
WQI 1	RIM = 29.9 INV IN (DMH 2) = 22.20 INV OUT (SWMA 1) = 21.70
WQI 2	RIM = 30.7 INV IN (DMH 5) = 23.40 INV OUT (SWMA 2) = 22.90
WQI 3	RIM = 28.5 INV IN (DMH 7) = 23.70 INV OUT (SWMA 3) = 23.20
WQI 4	RIM = 29.9 INV IN (DMH 10) = 23.50 INV OUT (SWMA 4) = 23.00
WQI 5	RIM = 29.9 INV IN (DMH 12) = 22.10 INV OUT (SWMA 1) = 21.60

PIPE NAME	SIZE	LENGTH	SLOPE	INV. UP	INV. DOWN
CB 1 to DMH 1	10"	26.9'	2.01%	25.00	24.46
CB 2 to DMH 2	10"	8.0'	3.73%	22.70	22.40
CB 3 to DMH 3	10"	48.1'	2.37%	25.60	24.46
CB 4 to DMH 4	10"	48.9'	2.56%	25.90	24.65
CB 5 to DMH 3	10"	34.8'	1.15%	25.70	25.30
CB 6 to DMH 3	10"	12.0'	3.33%	25.70	25.30
CB 7 to DMH 4	10"	8.2'	1.21%	24.75	24.65
CB 8 to DMH 6	10"	39.8'	1.01%	25.00	24.60
CB 9 to DMH 6	10"	8.9'	4.48%	25.00	24.60
CB 10 to DMH 6	10"	21.2'	1.89%	25.00	24.60
CB 11 to DMH 8	10"	48.6'	1.05%	25.00	24.49
CB 12 to DMH 8	10"	7.9'	3.53%	24.77	24.49
CB 13 to DMH 8	10"	27.5'	1.02%	24.77	24.49
CB 14 to DMH 11	10"	24.6'	1.22%	23.90	23.60
CB 15 to DMH 11	10"	5.4'	5.60%	23.90	23.60
DMH 1 to DMH 2	10"	13.0'	15.06%	24.36	22.40
DMH 2 to SWMA 1	10"	25.2'	1.19%	21.60	21.30
DMH 2 to WQI 1	10"	9.5'	2.11%	22.40	22.20
DMH 3 to DMH 4	10"	52.3'	1.05%	25.20	24.65
DMH 4 to DMH 5	12"	27.5'	1.82%	24.30	23.80
DMH 5 to SWMA 2	12"	6.9'	5.79%	23.00	22.60
DMH 5 to WQI 2	10"	10.1'	3.96%	23.80	23.40
DMH 6 to DMH 7	10"	35.6'	1.97%	24.50	23.80
DMH 7 to SWMA 3	10"	10.0'	2.00%	23.00	22.80
DMH 7 to WQI 3	10"	10.1'	0.99%	23.80	23.70
DMH 8 to DMH 9	10"	44.9'	1.11%	24.40	23.90
DMH 9 to DMH 10	10"	13.5'	1.48%	23.80	23.60
DMH 10 to SWMA 4	10"	17.8'	1.12%	22.80	22.60
DMH 10 to WQI 4	10"	9.5'	1.05%	23.60	23.50
DMH 11 to DMH 12	15"	117.1'	0.68%	23.10	22.30
DMH 12 to SWMA 1	15"	13.3'	1.50%	21.50	21.30
DMH 12 to WQI 5	10"	9.5'	3.05%	22.39	22.10
WQI 1 to SWMA 1	10"	16.8'	2.38%	21.70	21.30
WQI 2 to SWMA 2	10"	6.9'	4.35%	22.90	22.60
WQI 3 to SWMA 3	10"	10.0'	3.99%	23.20	22.80
WQI 4 to SWMA 4	10"	8.7'	4.59%	23.00	22.60
WQI 5 to SWMA 1	10"	4.3'	7.02%	21.60	21.30



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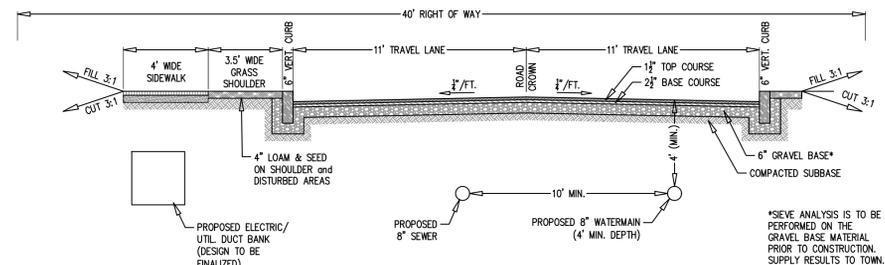
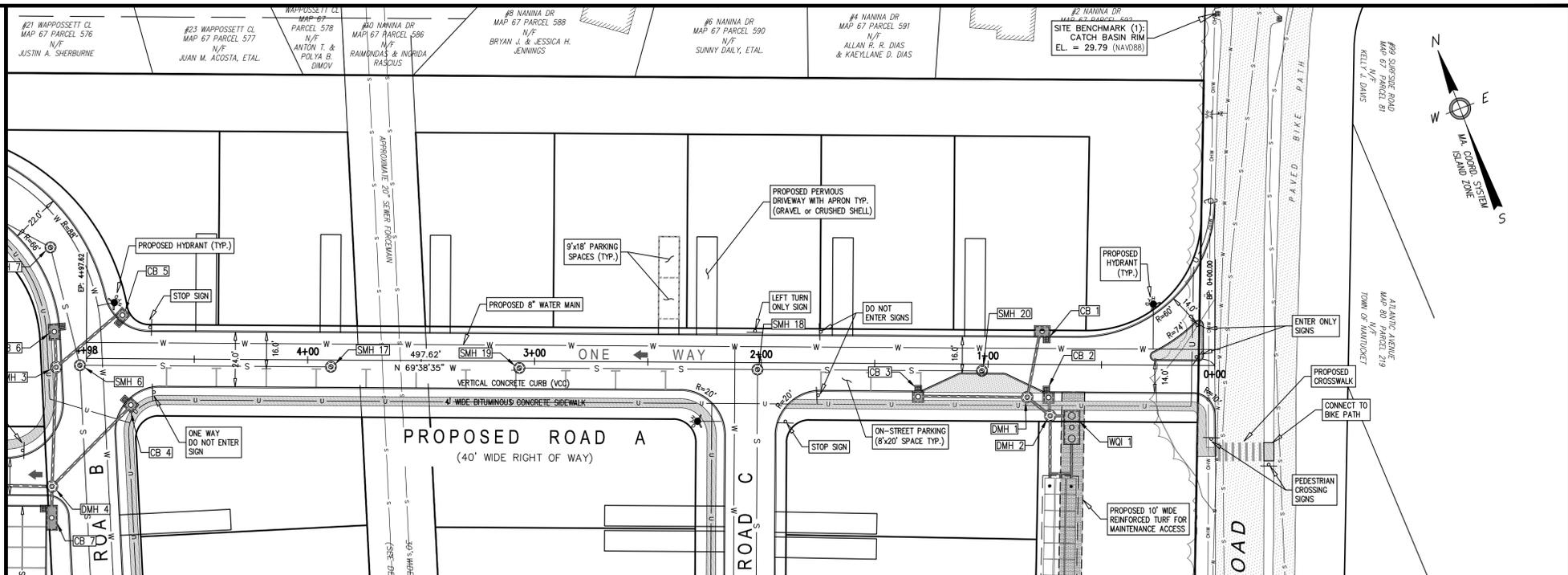
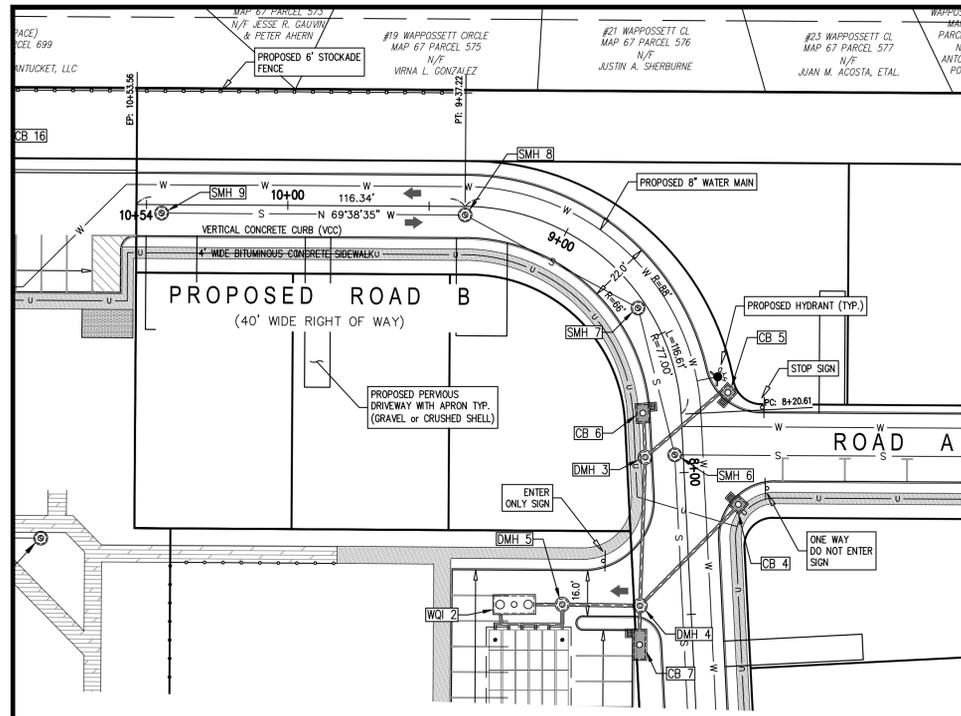
Sheet Title:
GRADING & DRAINAGE SUBDIVISION PARCELS

"SURFSIDE CROSSING"
 A
 PROPOSED 40B DEVELOPMENT
 IN NANTUCKET, MASSACHUSETTS
 Prepared For:
SURFSIDE CROSSING, LLC
 #3, 5, 7 & 9 SOUTH SHORE ROAD
 MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

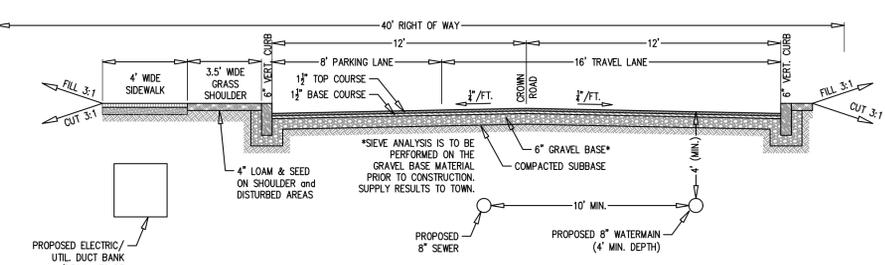
No.	Date	Revision Description	By
2	3/19/19	GENERAL REDESIGN	RMM
1	10/25/18	GENERAL REDESIGN	RMM

Date: FEBRUARY 15, 2018
 Drawn: RMM/ERC/BE
 Checked: DFB/AMG
 Sheet: 6 of 14

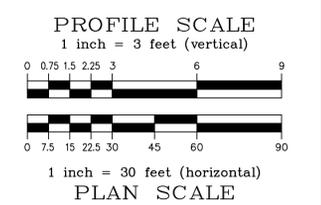
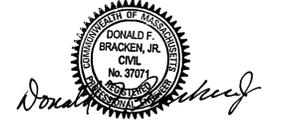
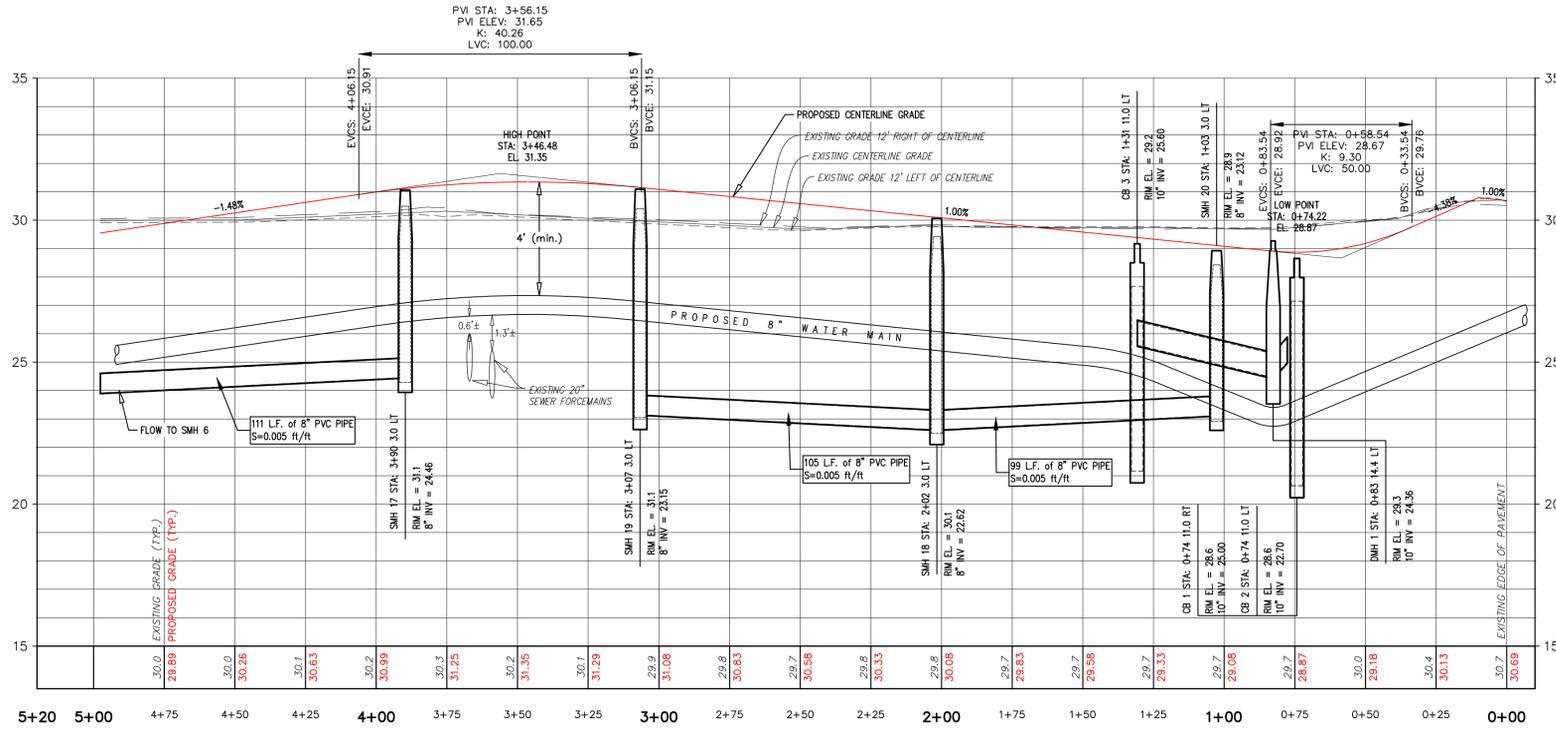
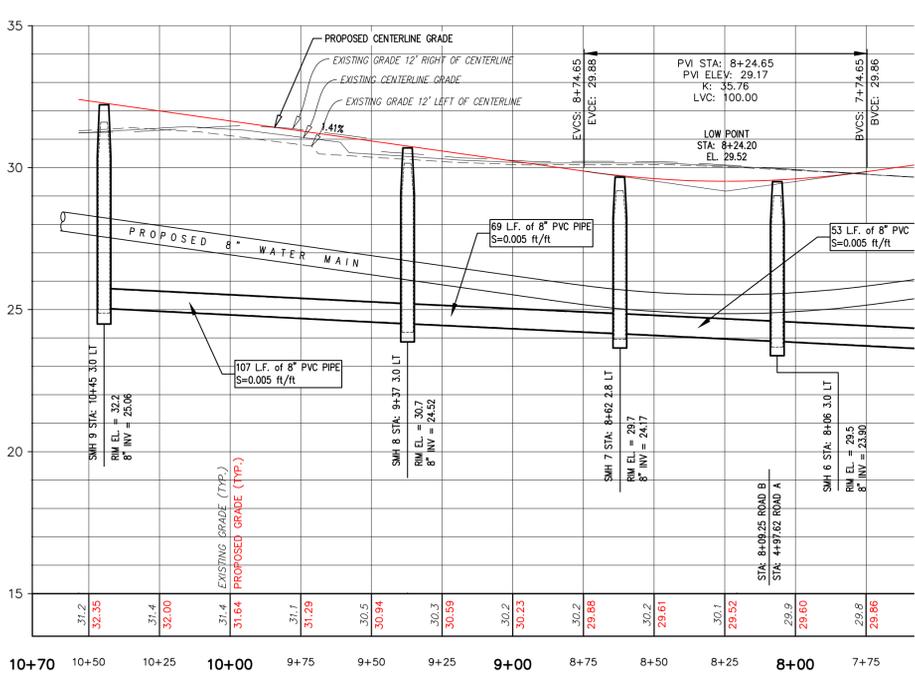
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ROAD B CROSS-SECTION - STA: 7+75.45 TO 10+53.56
NOT TO SCALE



ROAD A CROSS-SECTION
NOT TO SCALE

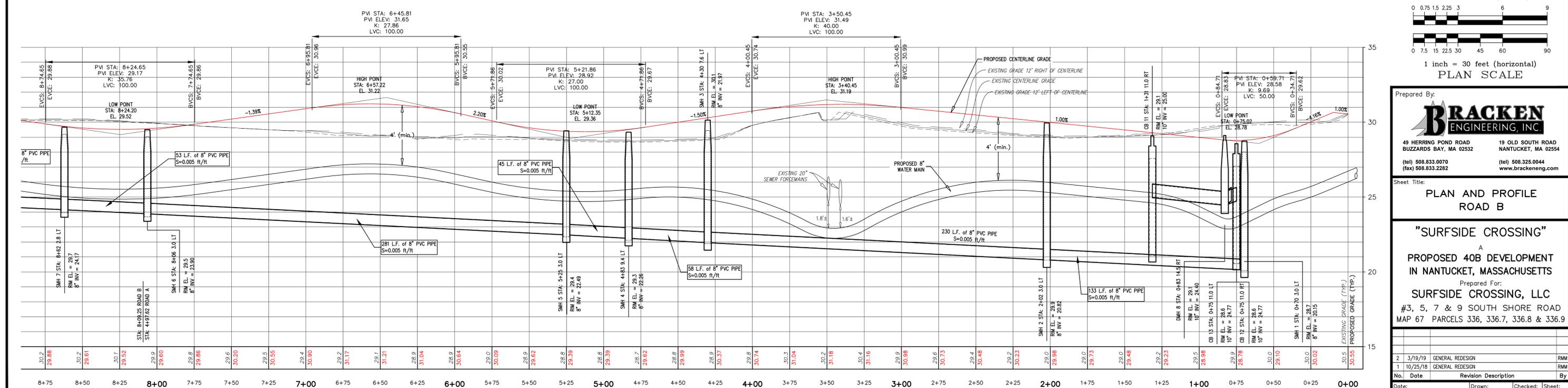
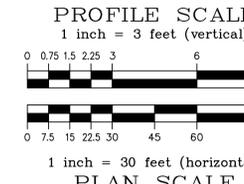
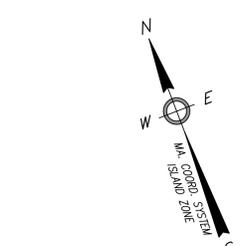
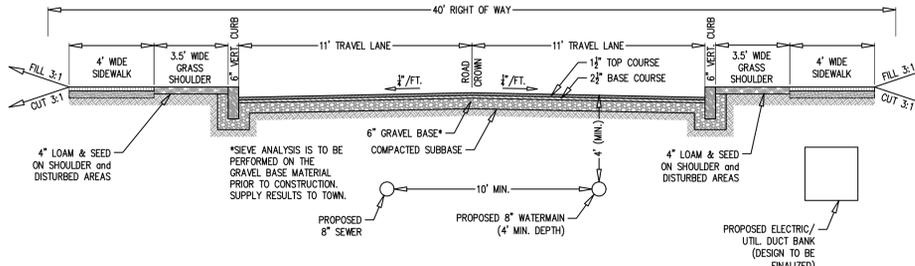
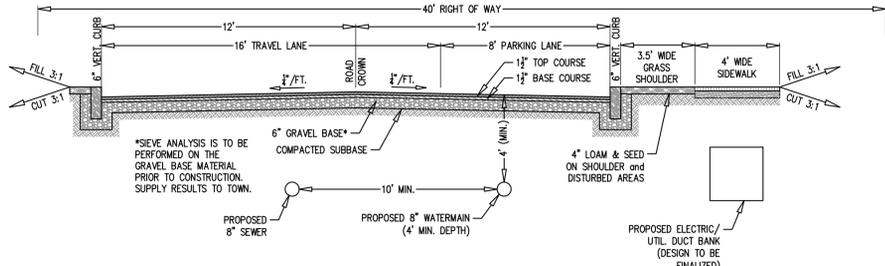
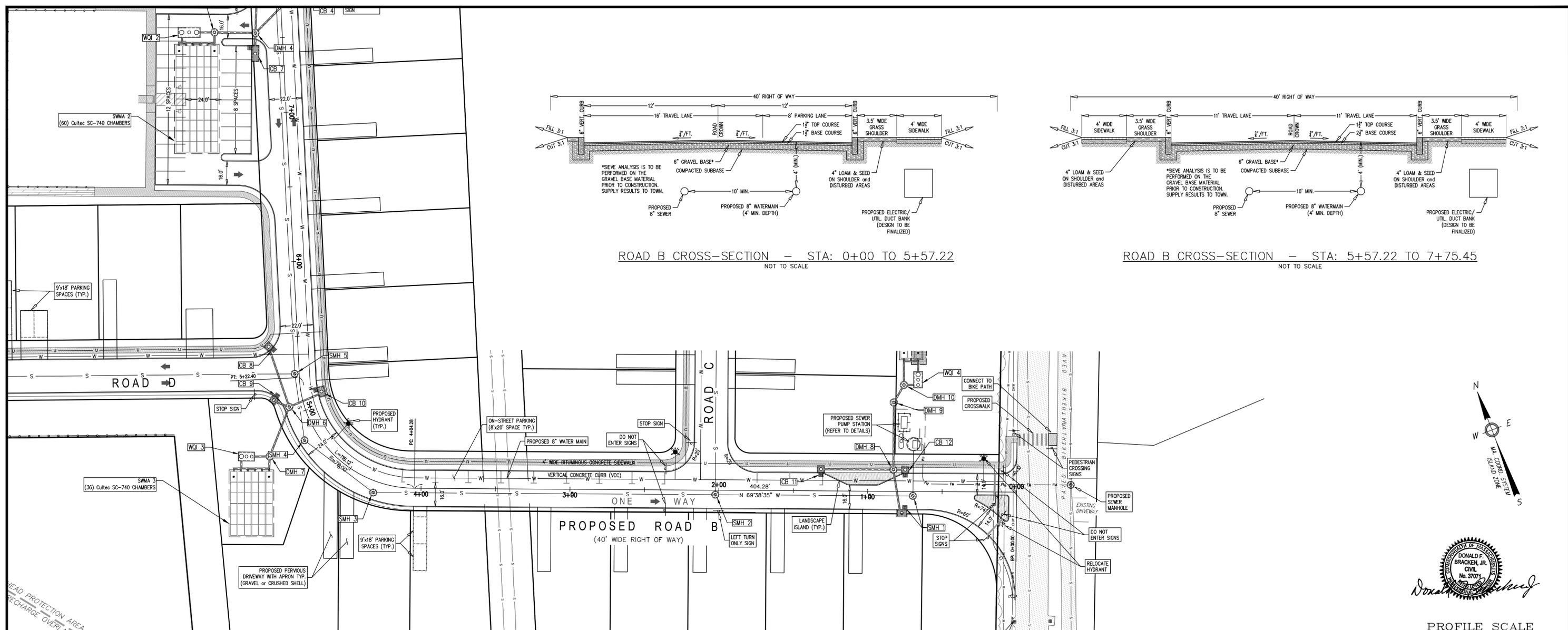


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Sheet Title:
PLAN AND PROFILE ROAD A & ROAD B
"SURFSIDE CROSSING"
 A
PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS
 Prepared For:
SURFSIDE CROSSING, LLC
 #3, 5, 7 & 9 SOUTH SHORE ROAD
 MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By
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1	10/25/18	GENERAL REDESIGN	RMM

Date: FEBRUARY 15, 2018 Drawn: RMM/ERC/BJE Checked: DFB/AMG Sheet: 7 of 14



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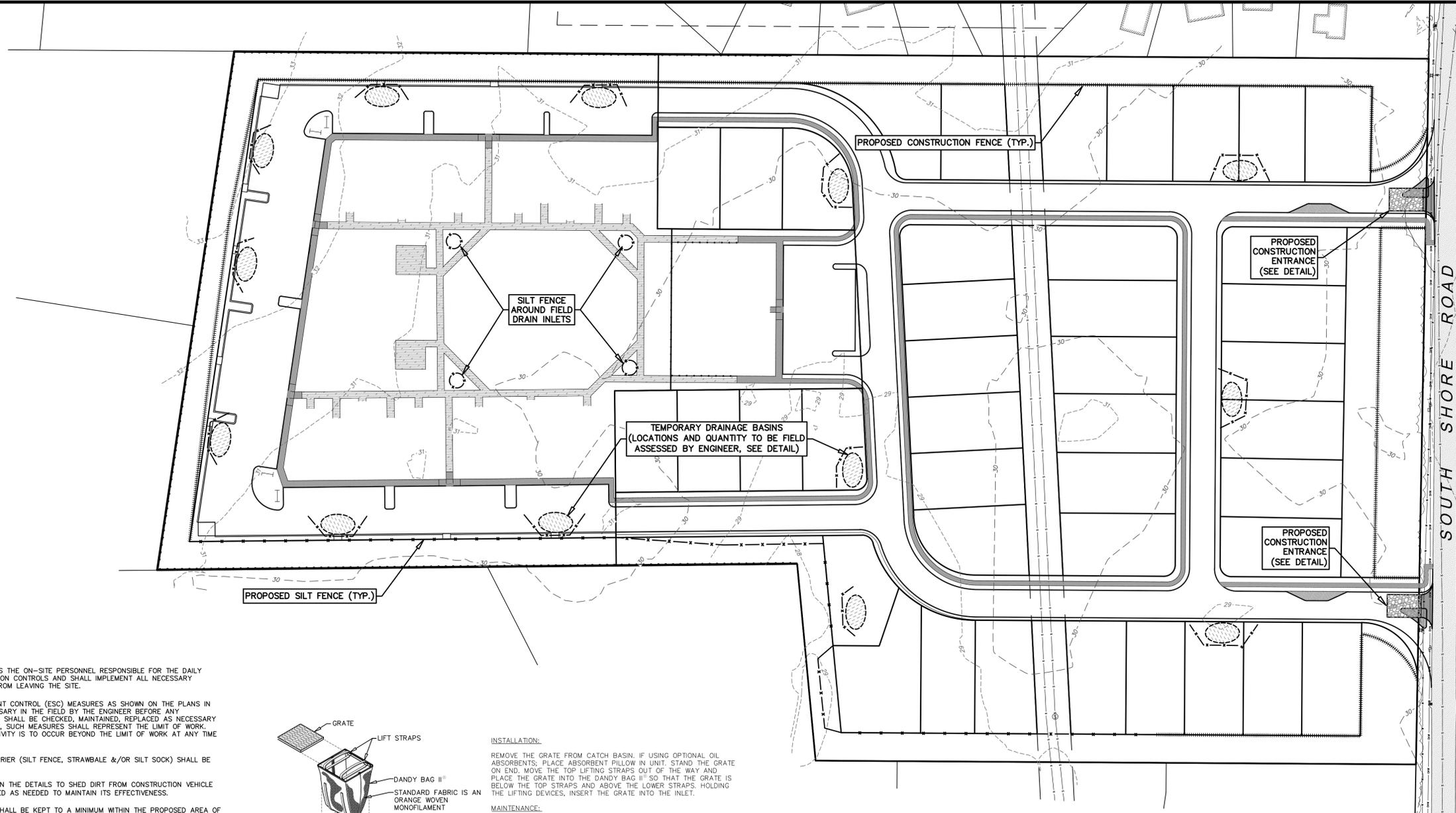
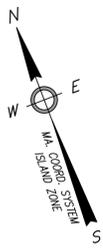
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Sheet Title:
PLAN AND PROFILE ROAD B

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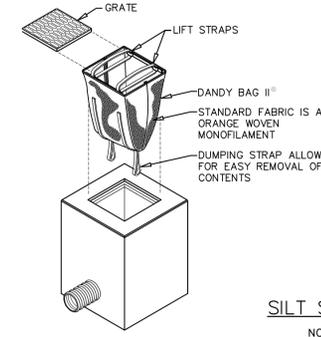
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EROSION & SEDIMENT CONTROL NOTES:

- THE SITE CONSTRUCTION FOREMAN SHALL BE DESIGNATED AS THE ON-SITE PERSONNEL RESPONSIBLE FOR THE DAILY INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROLS AND SHALL IMPLEMENT ALL NECESSARY MEASURES TO CONTROL EROSION AND PREVENT SEDIMENT FROM LEAVING THE SITE.
- THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES AS SHOWN ON THE PLANS IN CONSULTATION WITH THE TOWN, AND AS DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER BEFORE ANY CONSTRUCTION ACTIVITIES ARE TO BEGIN. THESE MEASURES SHALL BE CHECKED, MAINTAINED, REPLACED AS NECESSARY DURING THE ENTIRE CONSTRUCTION PERIOD OF THE PROJECT, SUCH MEASURES SHALL REPRESENT THE LIMIT OF WORK. WORKERS SHALL BE INFORMED THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGH THE CONSTRUCTION PERIOD.
- A MINIMUM SURPLUS OF 50 FEET OF EROSION CONTROL BARRIER (SILT FENCE, STRAWBALE &/OR SILT SOCK) SHALL BE STOCKPILED ON-SITE AT ALL TIMES.
- A CONSTRUCTION EXIT SHALL BE CONSTRUCTED AS SHOWN IN THE DETAILS TO SHED DIRT FROM CONSTRUCTION VEHICLE TIRES. THE CRUSHED STONE PAD WILL BE REPLACE/CLEANED AS NEEDED TO MAINTAIN ITS EFFECTIVENESS.
- THE LIMIT OF ALL CLEARING, GRADING AND DISTURBANCES SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. THE CONTRACTOR SHALL PHASE THE SITE WORK IN A MANNER TO MINIMIZE AREAS OF EXPOSED SOIL. IF TREES ARE TO BE CUT ON THE ENTIRE SITE, ONLY THOSE AREAS WHICH ARE ACTIVELY UNDER CONSTRUCTION SHALL BE GRUBBED. THE REQUIRED SEDIMENTATION CONTROL FACILITIES MUST BE PROPERLY ESTABLISHED, CLEARLY VISIBLE AND IN OPERATION PRIOR TO INITIATING ANY LAND CLEARING ACTIVITY AND/OR OTHER CONSTRUCTION RELATED WORK.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MONITOR LOCAL WEATHER REPORTS DURING CONSTRUCTION AND PRIOR TO SCHEDULING EARTHMOVING OR OTHER CONSTRUCTION ACTIVITIES WHICH WILL LEAVE LARGE DISTURBED AREAS UN-STABILIZED. IF INCLEMENT WEATHER IS PREDICTED, THE CONTRACTOR SHALL USE THEIR BEST PROFESSIONAL JUDGEMENT WHEN SCHEDULING CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR ENSURING THE NECESSARY EROSION CONTROL DEVICES ARE INSTALLED AND FUNCTIONING PROPERLY TO MINIMIZE EROSION FROM ANY IMPENDING WEATHER EVENTS.
- ESC MEASURES SHALL BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT OF 0.25 INCH OR GREATER DURING CONSTRUCTION TO ENSURE THAT THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE INTACT AND FUNCTIONING PROPERLY. IDENTIFIED DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY NO LATER THAN 24 HOURS AFTER IDENTIFICATION.
- SOIL STOCKPILES LEFT OVERNIGHT SHALL BE SURROUNDED ON THEIR PERIMETERS WITH SILT SOCK, SILT FENCE, STRAWBALES OR A COMBINATION OF SILT FENCE WITH STRAWBALE, AS DETERMINED NECESSARY.
- DISTURBED AREAS AND SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. THE CONTRACTOR SHOULD PROVIDE APPROPRIATE STABILIZATION PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY AREAS HAVING A SLOPE GREATER THAN 3:1 SHALL BE REINFORCED WITH EROSION BLANKETS OR APPROVED EQUIVALENT UNTIL THE SITE IS PROPERLY STABILIZED. TEMPORARY SWALES MAY ALSO BE REQUIRED IF DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER.
- THE CONTRACTOR SHALL INSTALL A SILT SACK OR APPROVED EQUIVALENT IN EACH EXISTING CATCH BASIN RECEIVING RUNOFF FROM THE SITE. UPON THE INSTALLATION OF EACH CATCH BASIN, THE CONTRACTOR SHALL INSTALL A SILT SACK OR APPROVED EQUIVALENT TO BE INSPECTED AFTER EACH SIGNIFICANT STORM EVENT AND REMOVED AND EMPTIED AS NEEDED DURING THE ENTIRE CONSTRUCTION PERIOD.
- SMALL SEDIMENTATION BASINS MAY BE CONSTRUCTED ON AN AS-NEEDED BASIS DURING CONSTRUCTION TO AND IN THE CAPTURE OF SITE RUNOFF AND SEDIMENT. IT WILL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR, IN CONSULTATION WITH THE ENGINEER, TO SIZE AND CREATE THESE BASINS IN APPROPRIATE LOCATIONS.
- THE CONTRACTOR SHALL CONTAIN ALL SEDIMENT ON-SITE. ALL EXITS FROM THE SITE WILL BE SWEEP AS NECESSARY INCLUDING ANY SEDIMENT TRACKING. PAVED AREAS SHALL BE SWEEP AS NEEDED TO REMOVE SEDIMENT AND POTENTIAL POLLUTANTS WHICH MAY ACCUMULATE DURING SITE WORK.
- ACCUMULATED SEDIMENT SHALL BE REMOVED FROM ALL TEMPORARY PRACTICES AND DISPOSED OF IN A PRE-APPROVED LOCATION BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE ON-SITE OR MAKE READILY AVAILABLE THE NECESSARY EQUIPMENT AND SITE PERSONNEL DURING CONSTRUCTION HOURS FOR THE DURATION OF THE PROJECT TO ENSURE ALL ESC DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER. IF SITE WORK IS SUSPENDED DURING THE WINTER MONTHS, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE PERSONNEL AND EQUIPMENT EITHER ON-SITE OR MAKE READILY AVAILABLE TO ENSURE ALL ESC DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER.
- DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE DURING CONSTRUCTION OF ALL STORMWATER FACILITIES INSTALLED BY THE PROJECT. ANY SEDIMENT OR DEBRIS COLLECTED WITHIN THESE FACILITIES FROM THE PROJECT WORK SHALL BE REMOVED PRIOR TO THE OWNER'S ACCEPTANCE.



INSTALLATION:
REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS, PLACE ABSORBENT PILLION IN UNIT. STAND THE GRATE ON END, MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE DANDY BAG II" SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS, HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

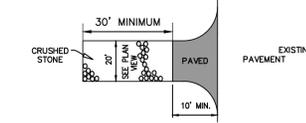
MAINTENANCE:
REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE DANDY BAG II". IF THE CONTAINMENT AREA IS MORE THAN 1/4 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED, TO EMPTY UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS, REPLACE ABSORBENT WHEN NEAR SATURATION.

SILT SACK DETAIL

NOT TO SCALE



DANDY BAG II®
INSTALLATION AND MAINTENANCE GUIDELINES



TRACKING PAD NOTES:
STONE SIZE - USE 2" CRUSHED STONE

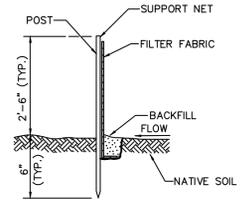
FILTER CLOTH - SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. STONE USED SHALL BE LARGE ENOUGH SO THAT IT DOES NOT GET PICKED UP AND TRACKED OFF THE SITE BY THE VEHICLE TRAFFIC.

SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHOULD BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM SHOULD BE PERMITTED.

MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANING OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

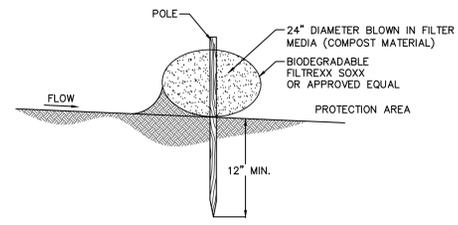
TEMPORARY TRACKING PAD DETAIL

NOT TO SCALE



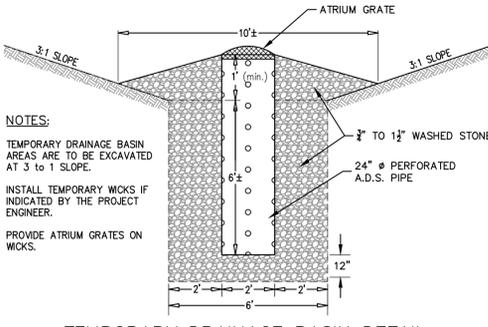
SILTATION FENCE DETAIL

NOT TO SCALE



FILTREXX SOXX BARRIER DETAIL

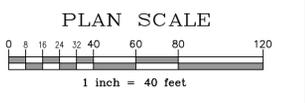
NOT TO SCALE



NOTES:
TEMPORARY DRAINAGE BASIN AREAS ARE TO BE EXCAVATED AT 3 TO 1 SLOPE.
INSTALL TEMPORARY WICKS IF INDICATED BY THE PROJECT ENGINEER.
PROVIDE ATRIUM GRATES ON WICKS.

TEMPORARY DRAINAGE BASIN DETAIL

NOT TO SCALE



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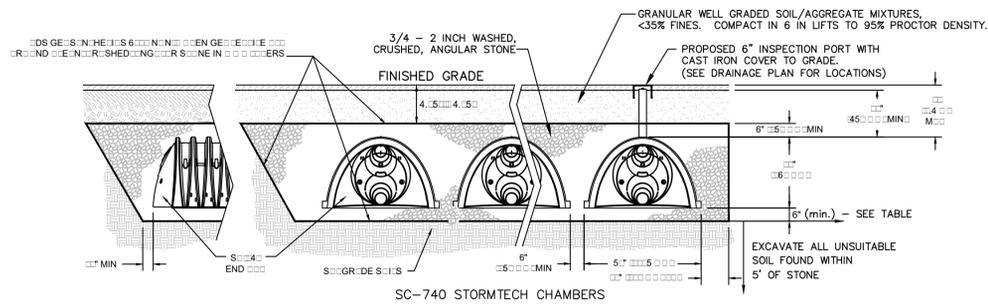


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EROSION & SEDIMENTATION CONTROL PLAN

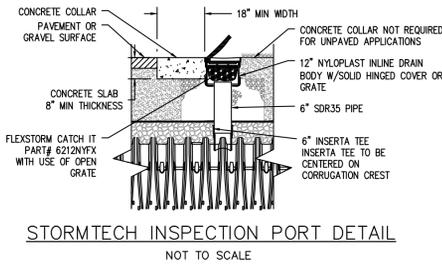
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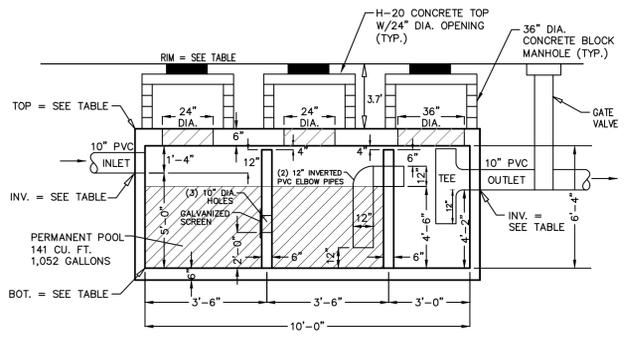
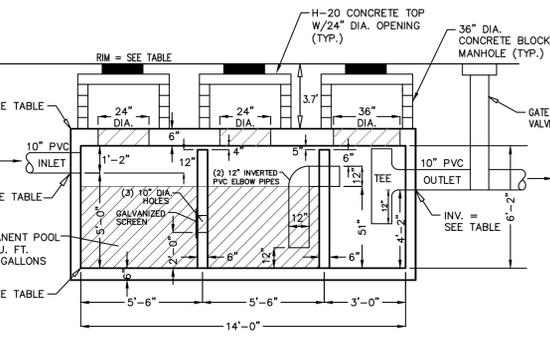
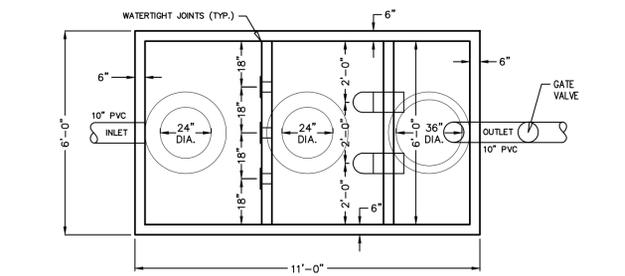
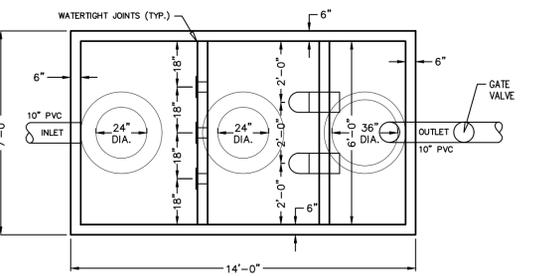
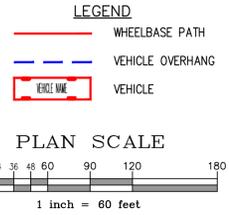
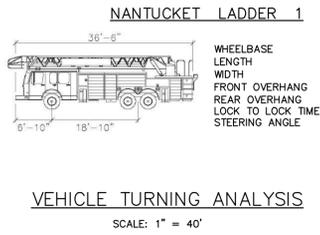
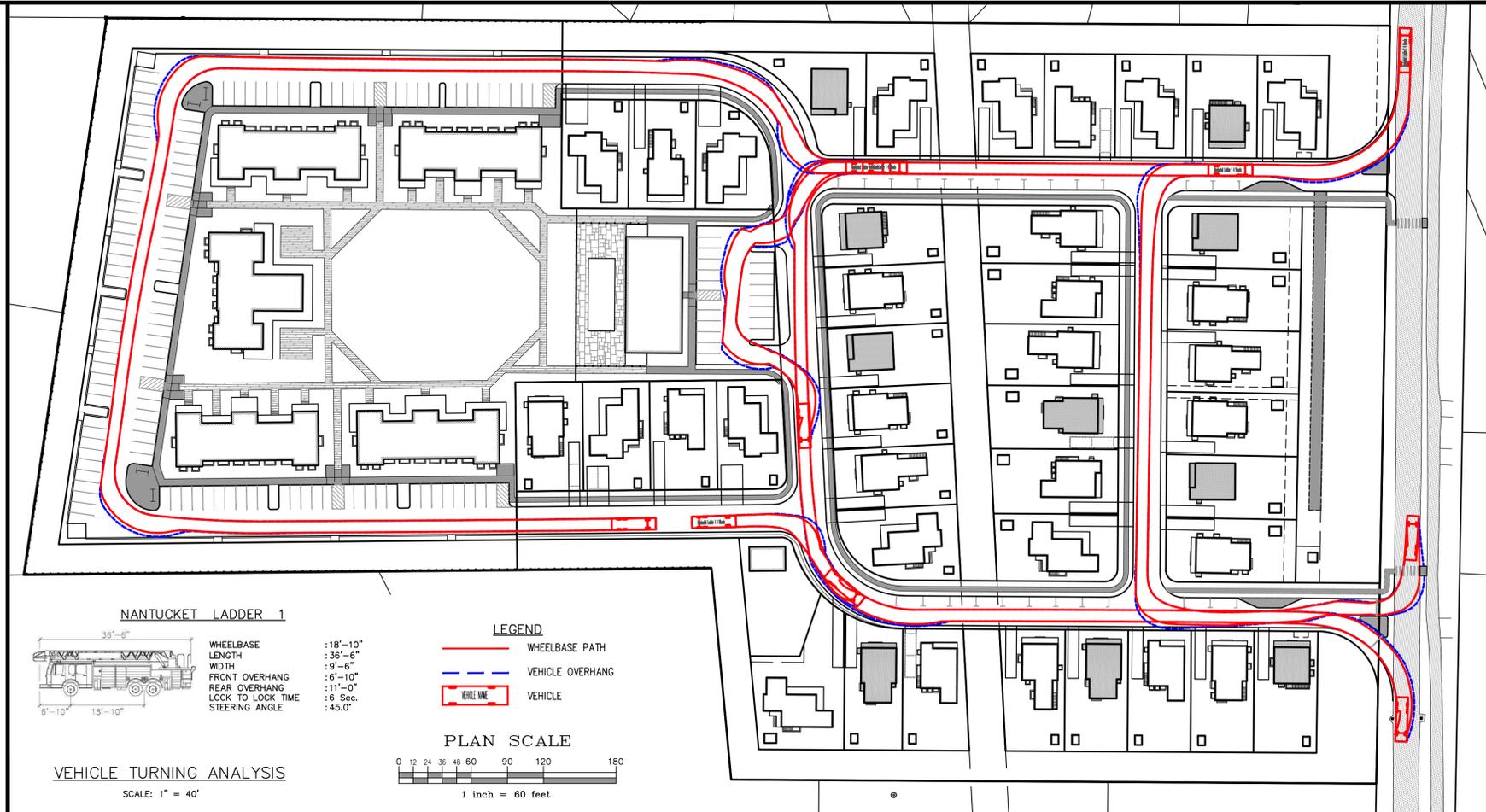
NOTES:
 CHAMBERS SHALL MEET ASTM F 2418-05 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE THE SAFETY FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS, WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
 THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE SAFETY FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS.
UNSUITABLE SOILS: SURFICIAL ORGANICS, SURFICIAL OR BURIED TOP SOIL/SUB SOIL, OLD FOUNDATION, UTILITIES, PAVEMENT, FILL AND ALL OTHER DELETERIOUS MATERIAL.
SOIL INSPECTION: THE DESIGN ENGINEER SHALL CONDUCT A BOTTOM OF EXCAVATION TEST, TO VERIFY THE UNSUITABLE MATERIALS HAVE BEEN REMOVED PRIOR TO BACKFILL OF SAND AND PRIOR TO THE INSTALLATION OF THE CRUSHED STONE BASE.
PROTECTION: INFILTRATION AREAS ARE TO BE PROTECTED DURING CONSTRUCTION AND AVOID OVER COMPACTION TO INSURE THE INFILTRATION CAPACITY IS MAINTAINED.



STORMTECH INSPECTION PORT DETAIL
 NOT TO SCALE

SWMA #	SYSTEM SIZE	# OF UNITS	# OF ROWS	TOP OF STONE	TOP OF CHAMBER	INVERT IN	INLET DIA.	BOTTOM CHAMBER	BOTTOM STONE	FINISHED GRADE
#1	15.75' x 115.92' x 3.5'	48	3	23.10	22.60	21.3 / 20.9	10" & 15"	20.10	18.10	30.0±
#2	30.00' x 73.20' x 3.5'	60	6	24.40	23.90	22.60	12"	21.40	19.40	29.6± to 30.4±
#3	30.00' x 44.72' x 3.5'	36	6	24.30	23.80	22.50	10"	21.30	19.80	29.3±
#4	15.75' x 44.72' x 3.5'	18	3	24.40	23.90	22.60	10"	21.40	19.90	30.0±
#5	20.50' x 58.96' x 3.5'	48	6	27.60	27.10	25.80	10"	24.60	22.60	33.0±
#6	20.50' x 58.96' x 3.5'	32	4	26.40	25.90	24.60	10"	23.40	21.40	31.2± to 31.7±
#7	25.25' x 80.32' x 3.5'	55	5	25.50	25.00	23.70	10"	22.50	21.00	31.0± to 31.8±
#8	26.25' x 66.08' x 3.5'	45	5	25.20	24.70	23.40	10"	22.20	20.20	30.4± to 31.0±

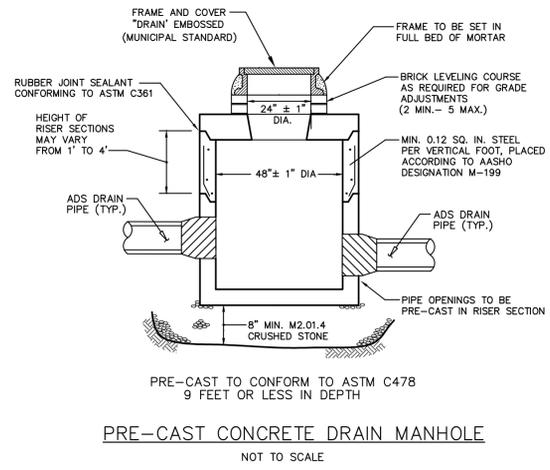
STORMWATER MANAGEMENT AREA DETAIL
 NOT TO SCALE



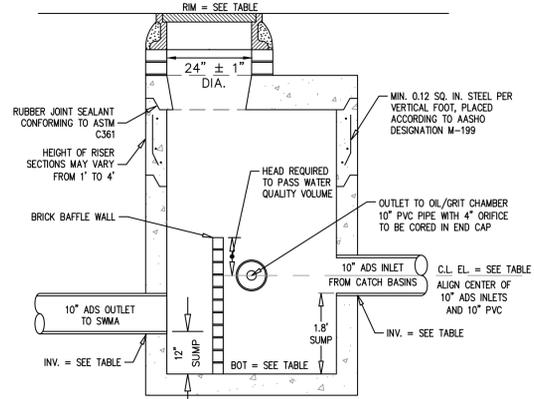
WQI #	RIM	INVERT IN	INVERT OUT	TOP OF CHAMBER	BOTTOM INTERIOR
#1	29.5	22.20	21.70	24.03	17.20
#2	30.8	23.40	22.90	25.23	18.40
#7	31.3	24.70	24.20	26.53	19.70
#8	30.6	24.30	23.80	26.13	19.20

WQI #	RIM	INVERT IN	INVERT OUT	TOP OF CHAMBER	BOTTOM INTERIOR
#3	29.4	23.70	23.20	25.53	18.70
#4	29.9	23.50	23.00	25.33	18.50
#5	29.9	22.10	21.60	23.93	17.10
#6	31.7	25.30	24.80	27.13	20.30

3 CHAMBER WATER QUALITY INLET DETAILS
 NOT TO SCALE

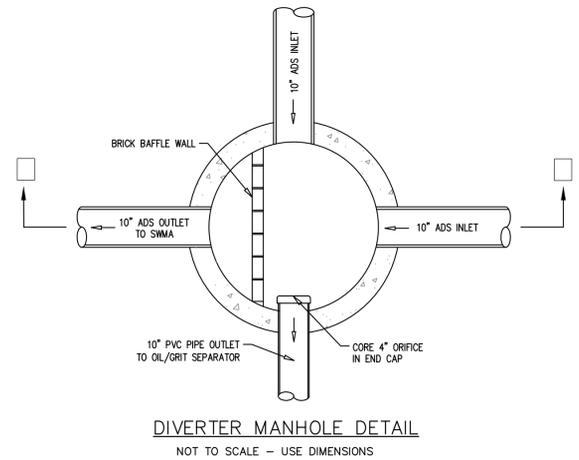


PRE-CAST CONCRETE DRAIN MANHOLE
 NOT TO SCALE



DIVERTER DMH #	RIM	10" INV. IN	10" INV. OUT	10" INV. OUT
#2	29.3	22.40	22.82	21.60
#5	30.3	23.80 (12")	24.22	23.00 (12")
#7	29.5	23.80	24.22	23.00
#10	30.1	23.60	24.02	22.80
#12	30.1	22.30 (15")	22.80	21.50 (15")
#15	31.6	25.60	26.02	24.80
#18	31.0	25.00	25.42	24.20
#21	30.5	24.40	24.82	23.6

NOTE:
 DETAILS SHOWN FOR PLANNING AND PERMITTING PURPOSES ONLY. FINAL DETAILS, SPECIFICATIONS, AND CONSTRUCTION NOTES TO BE INCLUDED ON FINAL CONSTRUCTION DRAWINGS.



DIVERTER MANHOLE DETAIL
 NOT TO SCALE - USE DIMENSIONS



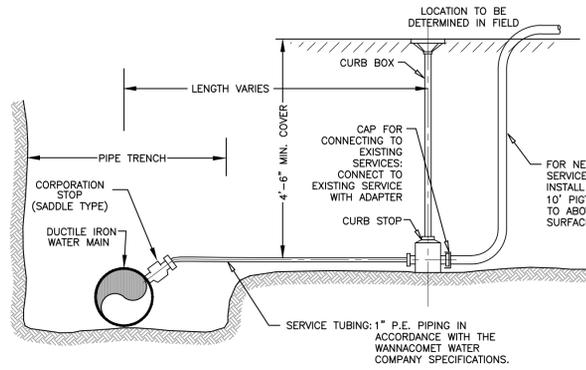
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Sheet Title:
CONSTRUCTION DETAILS & VEHICLE TURNING ANALYSIS

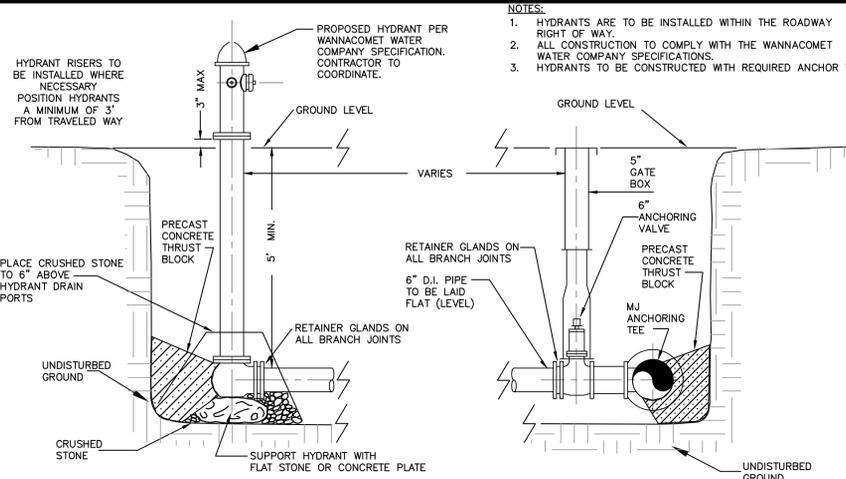
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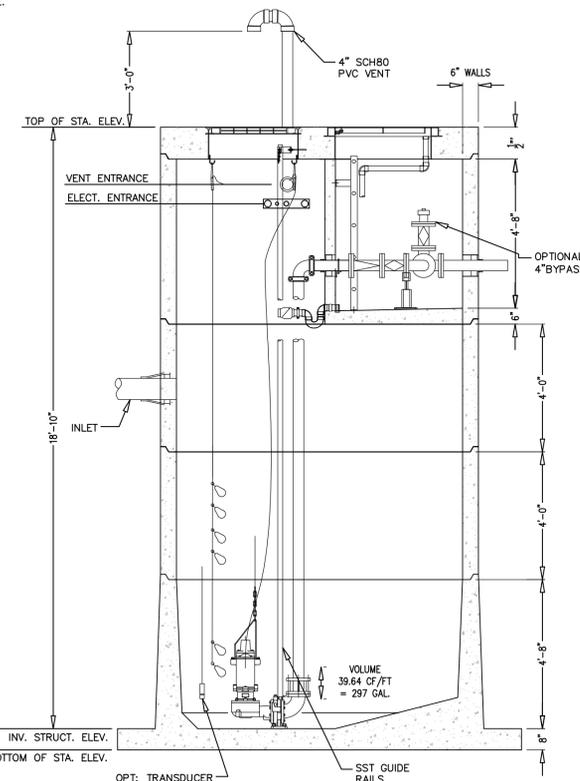
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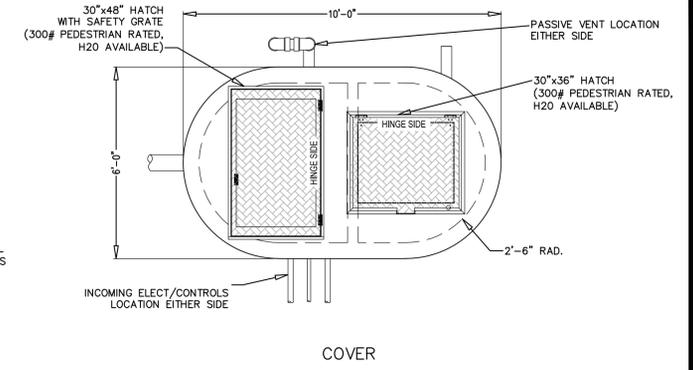
TYPICAL SERVICE CONNECTION
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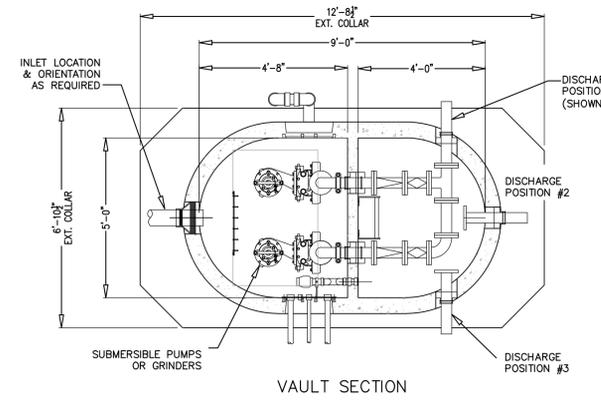
TYPICAL HYDRANT ASSEMBLY INSTALLATION
NOT TO SCALE



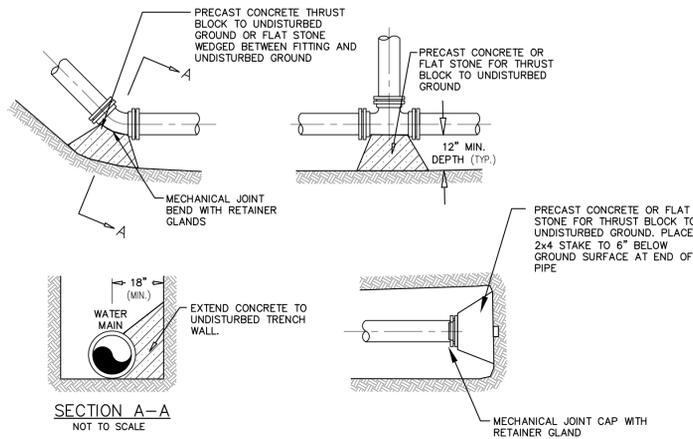
INTERIOR ELEVATION VIEW
RC509 x 18'-10"



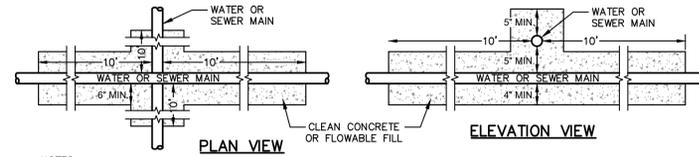
COVER



VAULT SECTION



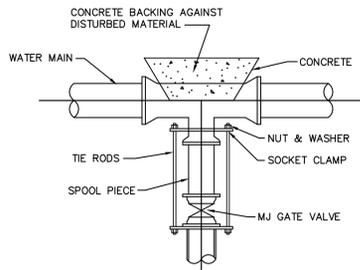
TYPICAL THRUST BLOCK DETAILS
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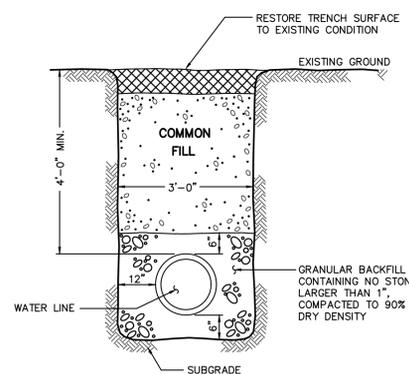
TYPICAL ENCASED SEWER AND WATER MAIN CROSSING
NOT TO SCALE



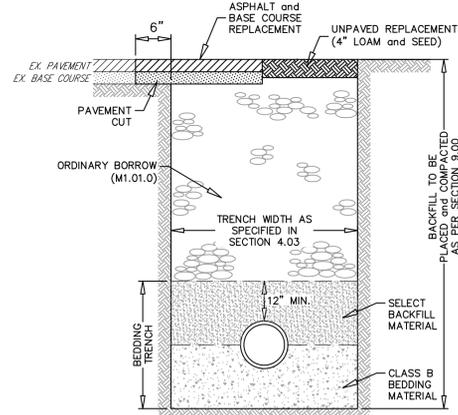
TYPICAL SEWER PUMP STATION DETAIL
NOT TO SCALE



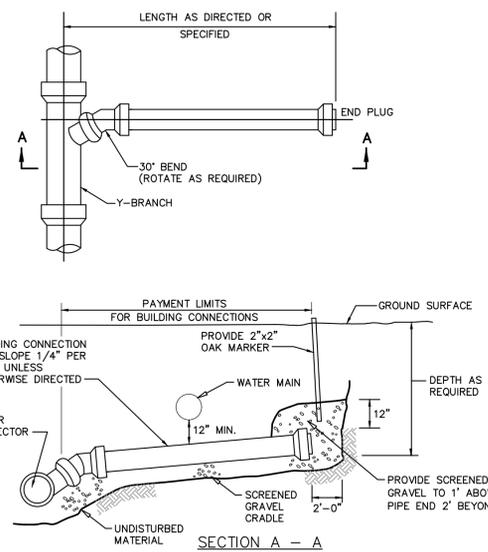
TYPICAL VALVE CONNECTION
NOT TO SCALE



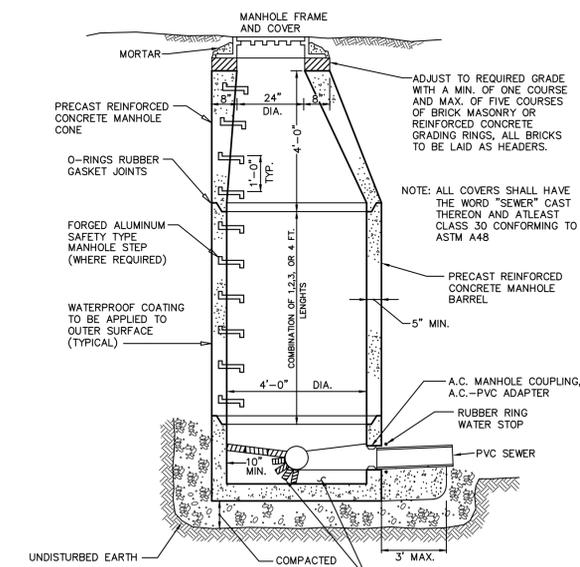
WATER MAIN TRENCH DETAIL
NOT TO SCALE



TYPICAL SEWER TRENCH DETAIL
NOT TO SCALE



BUILDING SEWER CONNECTION
NOT TO SCALE



STANDARD SEWER MANHOLE SECTION
NOT TO SCALE

NOTES:
1. HYDRANTS ARE TO BE INSTALLED WITHIN THE ROADWAY RIGHT OF WAY.
2. ALL CONSTRUCTION TO COMPLY WITH THE WANNACOMET WATER COMPANY SPECIFICATIONS.
3. HYDRANTS TO BE CONSTRUCTED WITH REQUIRED ANCHOR TEE.

NOTES:
1. PROVIDE WHEN SEWER CROSSES OVER WATER OR SEPARATION IS LESS THAN 18\"/>



NOTE:
DETAILS SHOWN FOR PLANNING AND PERMITTING PURPOSES ONLY. FINAL DETAILS, SPECIFICATIONS, AND CONSTRUCTION NOTES TO BE INCLUDED ON FINAL CONSTRUCTION DRAWINGS.

Prepared By:
BRACKEN ENGINEERING, INC.
49 HERRING POND ROAD BUZZARDS BAY, MA 02532
(tel) 508.833.0070 (fax) 508.833.2282
19 OLD SOUTH ROAD NANTUCKET, MA 02554
(tel) 508.325.0044 (fax) 508.325.0044 www.brackeneng.com

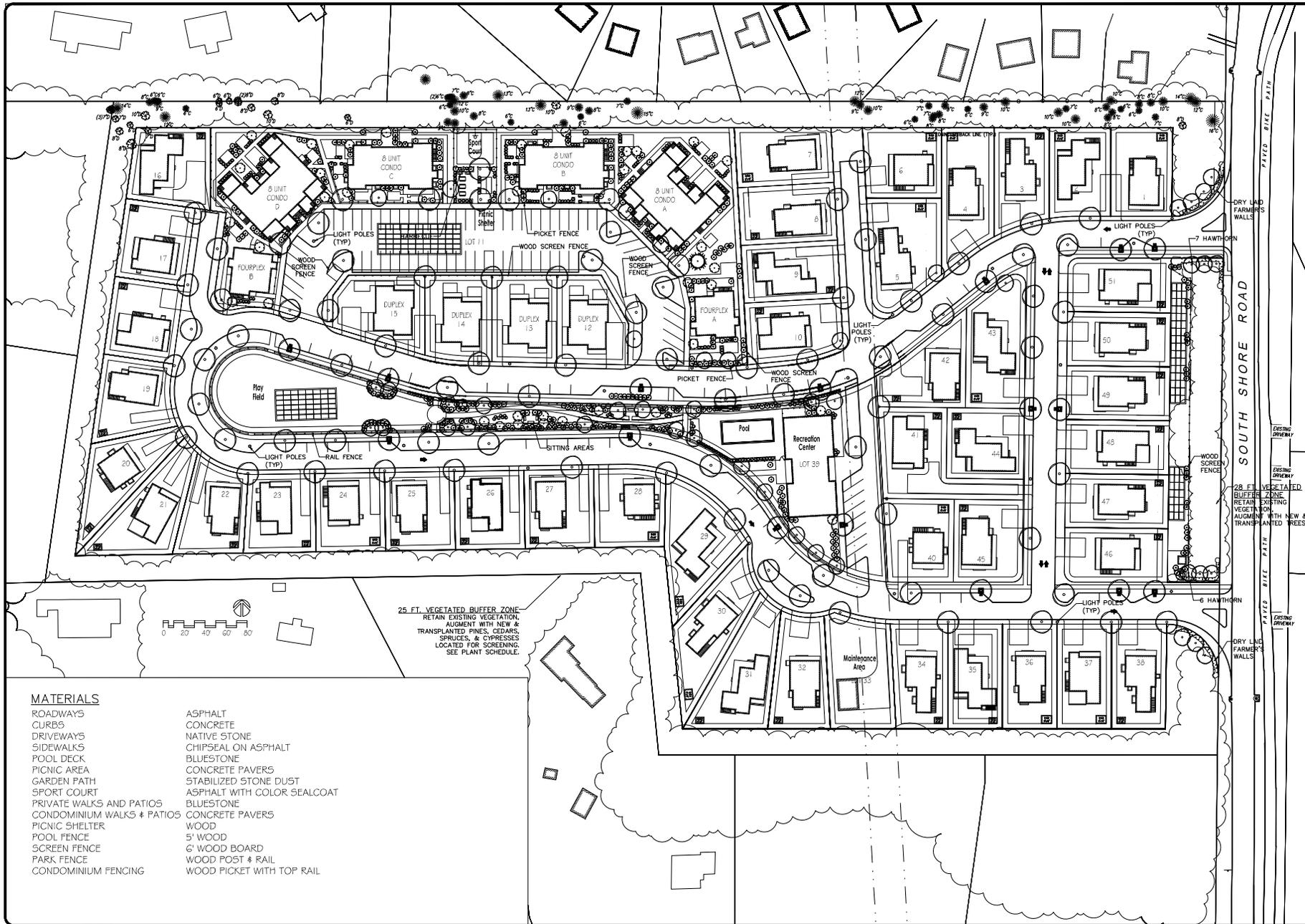
Sheet Title:
CONSTRUCTION DETAILS
"SURFSIDE CROSSING"
A
PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS
Prepared For:
SURFSIDE CROSSING, LLC
#3, 5, 7 & 9 SOUTH SHORE ROAD
MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By
2	3/19/19	GENERAL REDESIGN	RMM
1	10/25/18	GENERAL REDESIGN	RMM

Date: FEBRUARY 15, 2018 Drawn: RMM/ERC/BE Checked: DFB/AMG Sheet: 14 of 14

Attachment J

Overall Site Development Plan, Prepared by Bracken Engineering, Inc., Dated April 10, 2019 &
Landscape Plan, Prepared by Weinmayr/Jay Associates, Dated April 10, 2019 (92 Unit Alternative)



MATERIALS

- | | |
|----------------------------|-----------------------------|
| ROADWAYS | ASPHALT |
| CURBS | CONCRETE |
| DRIVEWAYS | NATIVE STONE |
| SIDEWALKS | CHIPSEAL ON ASPHALT |
| POOL DECK | BLUESTONE |
| PICNIC AREA | CONCRETE PAVERS |
| GARDEN PATH | STABILIZED STONE DUST |
| SPORT COURT | ASPHALT WITH COLOR SEALCOAT |
| PRIVATE WALKS AND PATIOS | BLUESTONE |
| CONDOMINIUM WALKS & PATIOS | CONCRETE PAVERS |
| PICNIC SHELTER | WOOD |
| POOL FENCE | 5' WOOD |
| SCREEN FENCE | 6' WOOD BOARD |
| PARK FENCE | WOOD POST & RAIL |
| CONDOMINIUM FENCING | WOOD PICKET WITH TOP RAIL |

25 FT. VEGETATED BUFFER ZONE
 RETAIN EXISTING VEGETATION.
 AUGMENT WITH NEW &
 TRANSPLANTED PINES, CEDARS,
 SPRUCES, & CYPRESSES
 LOCATED FOR SCREENING.
 SEE PLANT SCHEDULE.

SURFSIDE CROSSING LLC
 3, 5, 7 & 9 South Shore Road
 Nantucket, MA 02554

WENHAMWAY ASSOCIATES, INC.
 LANDSCAPE ARCHITECTS
 1200 Main St., Wenham, MA 01984
 417-992-9233
 www.wenhamway.com



LANDSCAPE PLAN
 Surfside Crossing

DATE: 04/10/2019
DRAWN: D.A.J.
CHECKED: D.A.J.
SCALE: 1"=40'
L-1
DRAWING NO.

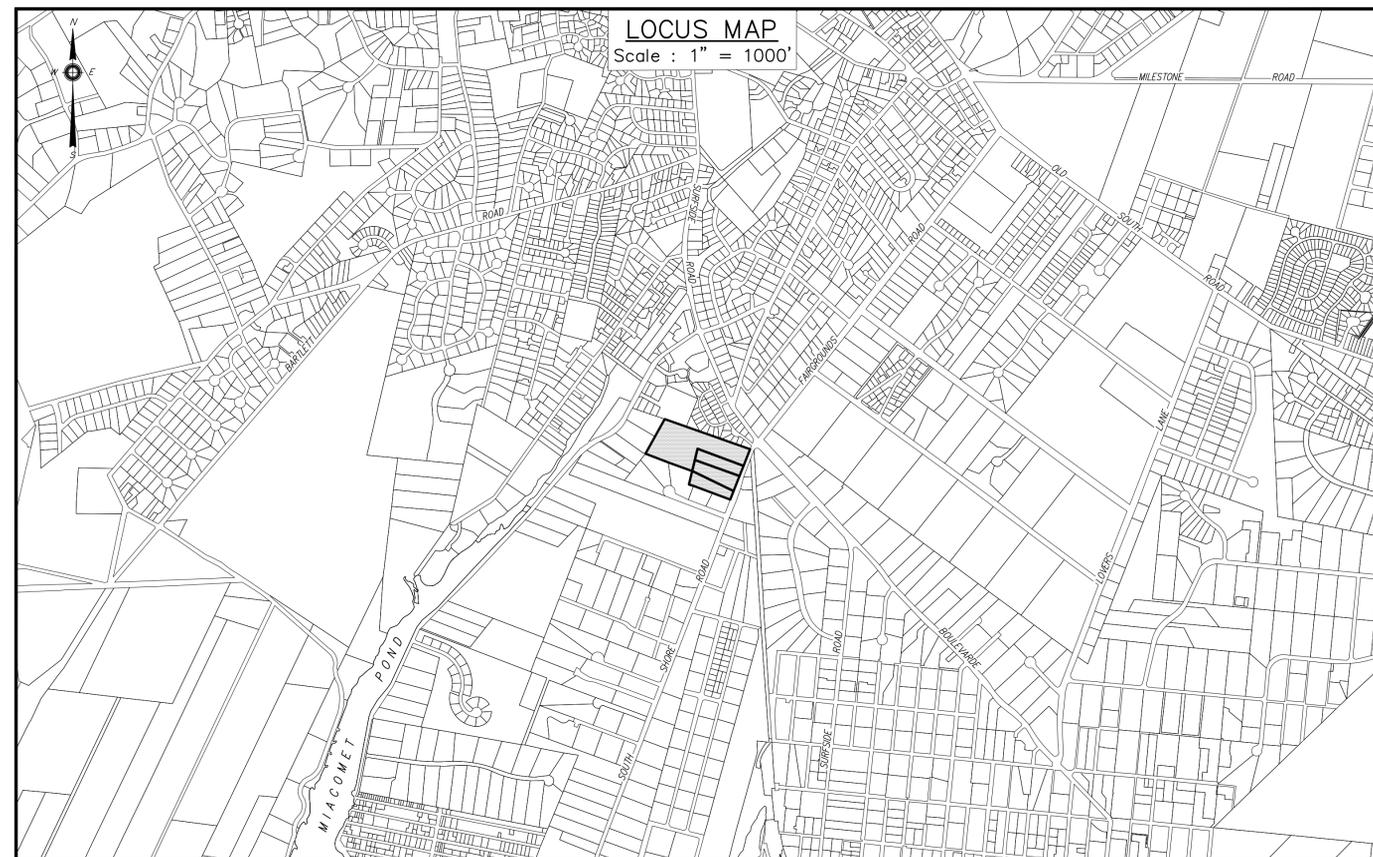
Attachment K

“Surfside Crossing” a Proposed 40B Development, Prepared by Bracken Engineering, Inc., Last Revised
February 28, 2020 (Preferred Alternative)

"SURFSIDE CROSSING" A PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS

PERMITTING SET
FEBRUARY 15, 2018
REVISED THROUGH: FEBRUARY 28, 2020

PAGE	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS
3	LAYOUT PLAN
4	GRADING & DRAINAGE
5	UTILITY PLAN
6	DRAINAGE DETAILS
7	WATER & SEWER DETAILS
8	CONSTRUCTION DETAILS
9	VEHICLE TURNING ANALYSIS



LEGEND

EXISTING	PROPOSED
---100---	100
---99---	99.99
100x1	—
TP #1	—
—	—
w	w
W	W
U	U
OHW	E
D	⊠
⊙	⊠
■	—
S	⊙
	⊙
	⊙
	S
	—

CIVIL ENGINEER / LAND SURVEYOR:



49 HERRING POND ROAD BUZZARDS BAY, MA 02532
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(Tel) 508.325.0044 (Fax) 508.325.0044
www.brackeneng.com

ARCHITECT:

WORKSHOP/APD
39 WEST 38th STREET, 7th FLOOR
NEW YORK, NY 10018
T 212 273 9712
info@workshopapd.com

LANDSCAPE DESIGNER:



LANDSCAPE DESIGN STUDIO
PO Box 2213, Nantucket MA 02584
T (508) 333-5138 F (508) 325-4616
design@ahernllc.com

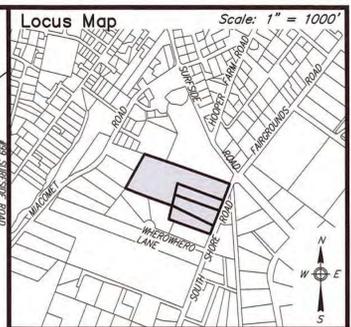
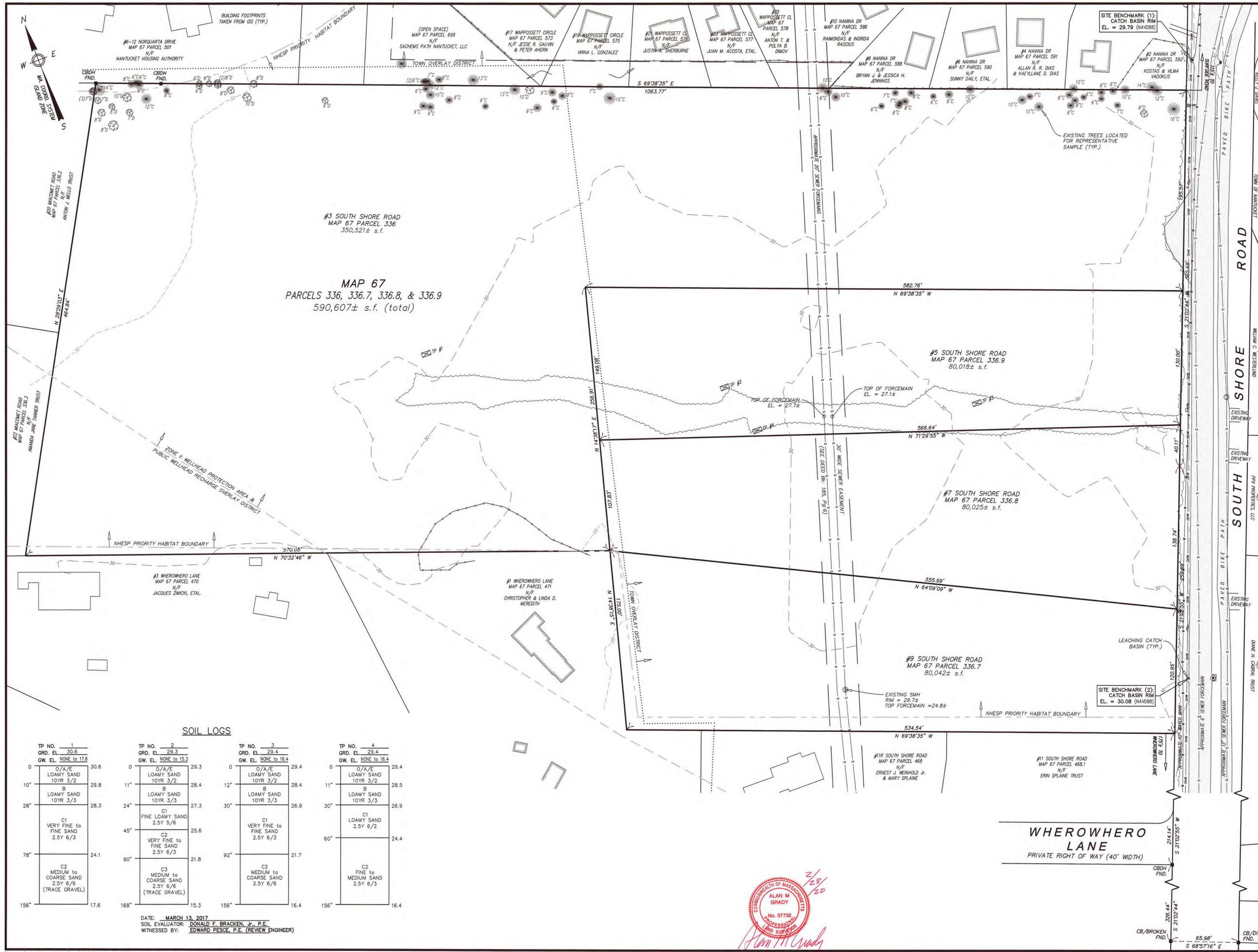
TRAFFIC CONSULTANT:



28 Lord Road, Suite 280
Marlborough, MA 01752
Tel: (508) 303-0370
Fax: (508) 303-0371

APPLICANT:

SURFSIDE CROSSING LLC
c/o JAMIE FEELEY & JOSH POSNER
37 OLD SOUTH ROAD, UNIT #6
NANTUCKET, MA 02554



- Notes**
- LOCUS: #3, #5, #7, & #9 SOUTH SHORE ROAD MAP 67 PARCELS 336, 336.7, 336.8, & 336.9
 - OWNER: SURFSIDE CROSSING LLC c/o JAMIE FEELEY & JOSH POSNER 37 OLD SOUTH ROAD, UNIT #6 NANTUCKET, MA 02554
 - DEED REF: Bk: 1612 Pg: 62
 - PLAN REF: Bk: 25 Pg: 50 (LOTS 1-4)
 - LOCUS DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP No. 25019C-0151-G dated 06/09/2014.
 - LOCUS DOES FALL WITHIN THE NATURAL HERITAGE and ENDANGERED SPECIES PROGRAM (NHPSP) AREAS OF PRIORITY HABITATS OF RARE SPECIES, BUT NOT ESTIMATED HABITATS OF RARE WILDLIFE.
 - LOCUS PARTIALLY FALLS WITHIN THE TOWN OVERLAY DISTRICT.
 - LOCUS FALLS WITHIN THE CORE SEWER DISTRICT.
 - LOCUS PARTIALLY FALLS WITHIN A ZONE II WELLHEAD PROTECTION AREA.
 - LOCUS PARTIALLY FALLS WITHIN THE PUBLIC WELLHEAD RECHARGE OVERLAY DISTRICT.
 - AN ON THE GROUND SURVEY WAS PERFORMED BY THIS FIRM BETWEEN 9/22/17 AND 10/18/18.
 - EXISTING SEWER FORCE MAIN LOCATIONS AND SIZES TO BE CONFIRMED WITH THE NANTUCKET SEWER DEPARTMENT.

PLAN SCALE

0 8 16 24 32 40 60 80 120

1 inch = 40 feet

ZONE: LUG-2 REQUIRED

LOT AREA: 80,000 s.f.
 FRONTAGE: 150'
 FRONT YARD: 35'
 SIDE/REAR YARD: 15'
 GROUND COVER: 4% (MAX)

Prepared By:

BRACKEN ENGINEERING, INC.

49 HERRING POND ROAD BUZZARDS BAY, MA 02532 (tel) 508.833.0070 (fax) 508.833.2282

19 OLD SOUTH ROAD NANTUCKET, MA 02554 (tel) 508.325.0044 (fax) 508.325.0044 www.brackeneng.com

Sheet Title:

EXISTING CONDITIONS

"SURFSIDE CROSSING"

A

PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS

Prepared For:

SURFSIDE CROSSING, LLC

#3, 5, 7 & 9 SOUTH SHORE ROAD MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

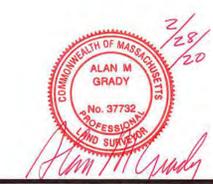
No.	Date	Revision Description	By
1	2/28/20	GENERAL REDESIGN	RAM

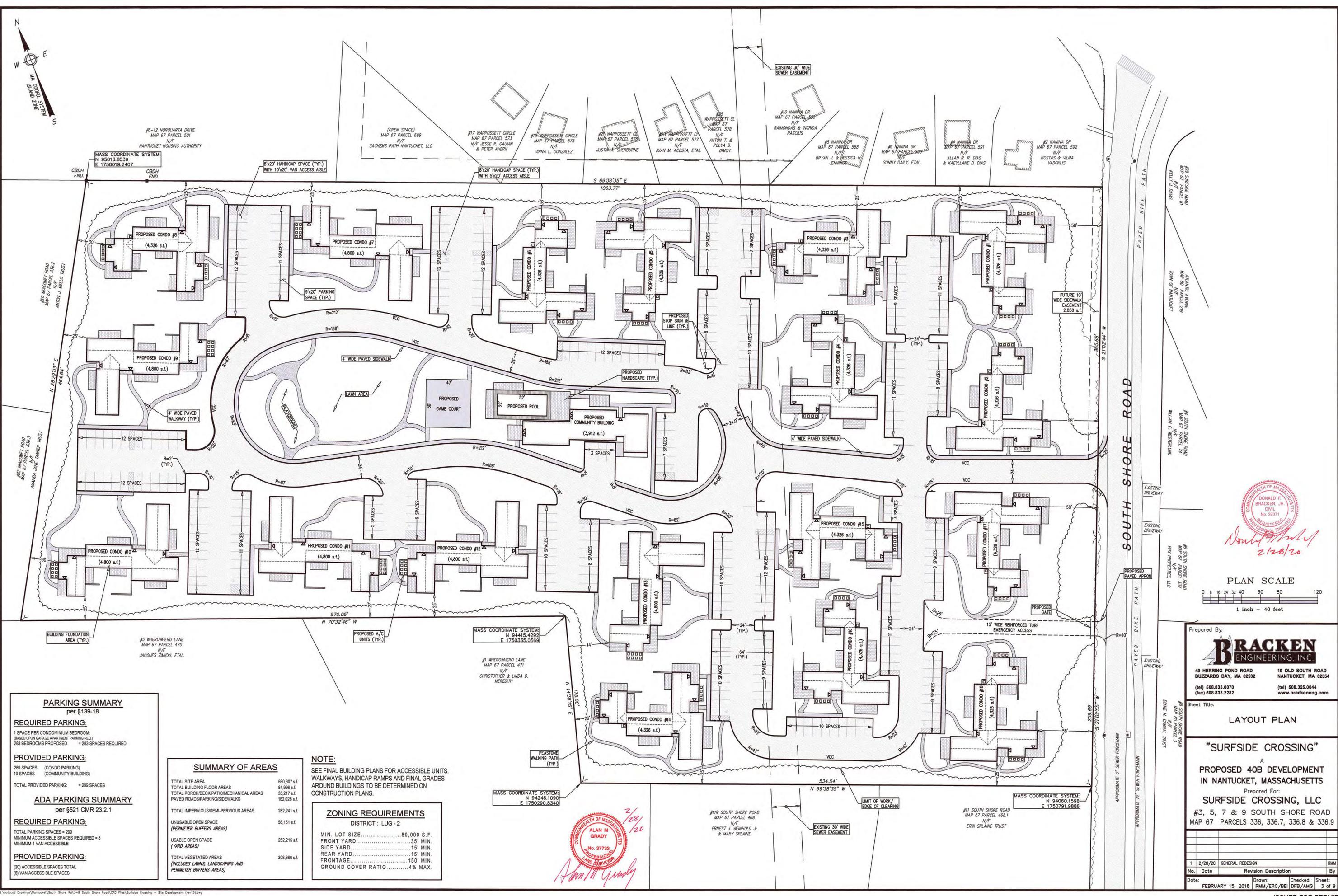
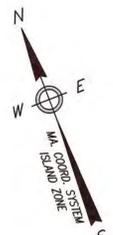
Date: FEBRUARY 15, 2018 Drawn: RMM/ERC/BEI Checked: DFB/AMG Sheet: 2 of 9

SOIL LOGS

TP NO.	1	2	3	4
GRD. EL.	30.6	29.3	29.4	29.4
GW. EL.	NONE to 17.6	NONE to 15.3	NONE to 16.4	NONE to 16.4
0	0/A/E LOAMY SAND 10YR 3/2	0/A/E LOAMY SAND 10YR 3/2	0/A/E LOAMY SAND 10YR 3/2	0/A/E LOAMY SAND 10YR 3/2
10"	B LOAMY SAND 10YR 3/3	B LOAMY SAND 10YR 3/3	B LOAMY SAND 10YR 3/3	B LOAMY SAND 10YR 3/3
28"	C1 VERY FINE to FINE SAND 2.5Y 6/3	C1 FINE LOAMY SAND 2.5Y 5/6	C1 VERY FINE to FINE SAND 2.5Y 6/3	C1 LOAMY SAND 2.5Y 6/2
78"	C2 MEDIUM to COARSE SAND 2.5Y 6/6 (TRACE GRAVEL)	C2 VERY FINE to FINE SAND 2.5Y 6/3	C2 MEDIUM to COARSE SAND 2.5Y 6/6	C2 FINE to MEDIUM SAND 2.5Y 6/3
156"		C3 MEDIUM to COARSE SAND 2.5Y 6/6 (TRACE GRAVEL)		

DATE: MARCH 13, 2017
 SOIL EVALUATOR: DONALD F. BRACKEN, Jr., P.E.
 WITNESSED BY: EDWARD PESCE, P.E. (REVIEW ENGINEER)





DONALD F. BRACKEN, JR.
 CIVIL
 No. 37071
 REGISTERED PROFESSIONAL ENGINEER
Donald F. Bracken, Jr.
 2/28/20

PLAN SCALE
 0 8 16 24 32 40 60 80 120
 1 inch = 40 feet

PARKING SUMMARY
per §139-18

REQUIRED PARKING:
1 SPACE PER CONDOMINIUM BEDROOM
(BASED UPON GARAGE APARTMENT PARKING REQ.)
283 BEDROOMS PROPOSED = 283 SPACES REQUIRED

PROVIDED PARKING:
289 SPACES (CONDO PARKING)
10 SPACES (COMMUNITY BUILDING)

TOTAL PROVIDED PARKING = 299 SPACES

ADA PARKING SUMMARY
per §521 CMR 23.2.1

REQUIRED PARKING:
TOTAL PARKING SPACES = 299
MINIMUM ACCESSIBLE SPACES REQUIRED = 8
MINIMUM 1 VAN ACCESSIBLE

PROVIDED PARKING:
(2) ACCESSIBLE SPACES TOTAL
(6) VAN ACCESSIBLE SPACES

SUMMARY OF AREAS

TOTAL SITE AREA	590,607 s.f.
TOTAL BUILDING FLOOR AREAS	84,596 s.f.
TOTAL PORCH/DECK/PATIO/MECHANICAL AREAS	35,217 s.f.
PAVED ROADS/PARKING/SIDEWALKS	162,028 s.f.
TOTAL IMPERVIOUS/SEMI-IMPERVIOUS AREAS	282,241 s.f.
UNUSABLE OPEN SPACE (PERIMETER BUFFERS AREAS)	56,151 s.f.
USABLE OPEN SPACE (YARD AREAS)	252,215 s.f.
TOTAL VEGETATED AREAS (INCLUDES LAWNS, LANDSCAPING AND PERIMETER BUFFERS AREAS)	308,366 s.f.

NOTE:
SEE FINAL BUILDING PLANS FOR ACCESSIBLE UNITS, WALKWAYS, HANDICAP RAMPS AND FINAL GRADES AROUND BUILDINGS TO BE DETERMINED ON CONSTRUCTION PLANS.

ZONING REQUIREMENTS
DISTRICT: LUG - 2

MIN. LOT SIZE	80,000 S.F.
FRONT YARD	35' MIN.
SIDE YARD	15' MIN.
REAR YARD	15' MIN.
FRONTAGE	150' MIN.
GROUND COVER RATIO	4% MAX.

Prepared By:

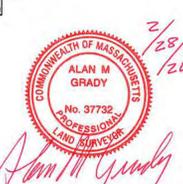
BRACKEN ENGINEERING, INC.
 49 HERRING POND ROAD BUZZARDS BAY, MA 02532
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 (fax) 508.833.2282 (fax) 508.833.2282
 www.brackeneng.com

Sheet Title:
LAYOUT PLAN

"SURFSIDE CROSSING"
 A
PROPOSED 40B DEVELOPMENT
 IN NANTUCKET, MASSACHUSETTS
 Prepared For:
SURFSIDE CROSSING, LLC
 #3, 5, 7 & 9 SOUTH SHORE ROAD
 MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By
1	2/28/20	GENERAL REDESIGN	RMM

Date: FEBRUARY 15, 2018
 Drawn: RMM/ERC/BE
 Checked: DFB/AMG
 Sheet: 3 of 9





TYPICAL SUBSURFACE LEACHING SYSTEM FOR ROOF RUNOFF
(SEE FINAL PLANS FOR EACH BUILDING FOR EXACT LOCATION & CONFIGURATION)

SITE BENCHMARK (1):
CATCH BASIN RIM
EL. = 29.79 (NAV088)

TYPICAL SUBSURFACE LEACHING SYSTEM FOR ROOF RUNOFF AND
AREAWAY DRAINS
(SEE FINAL LANDSCAPE AND CONSTRUCTION PLANS FOR EXACT LOCATIONS & CONFIGURATIONS)

STRUCTURE NAME	STRUCTURE DETAILS
CB 1	RIM = 28.2 DMH 2 INV OUT = 24.41
CB 2	RIM = 28.2 DMH 2 INV OUT = 23.57
CB 3	RIM = 28.2 DMH 1 INV OUT = 24.47
CB 4	RIM = 28.2 DMH 3 INV OUT = 23.14
CB 5	RIM = 28.2 DMH 4 INV OUT = 24.68
CB 6	RIM = 28.2 DMH 4 INV OUT = 23.74
CB 7	RIM = 28.6 DMH 5 INV OUT = 22.75
CB 8	RIM = 29.8 DMH 7 INV OUT = 25.21
CB 9	RIM = 29.8 DMH 7 INV OUT = 26.40
CB 10	RIM = 29.6 DMH 10 INV OUT = 24.96
CB 11	RIM = 29.8 DMH 9 INV OUT = 26.40
CB 12	RIM = 29.3 DMH 9 INV OUT = 25.80
CB 13	RIM = 27.8 DMH 11 INV OUT = 24.30
CB 14	RIM = 27.5 DMH 11 INV OUT = 23.17
CB 15	RIM = 28.2 DMH 13 INV OUT = 24.70
CB 16	RIM = 29.5 DMH 14 INV OUT = 26.00
CB 17	RIM = 28.8 DMH 15 INV OUT = 25.30
CB 18	RIM = 29.4 DMH 16 INV OUT = 24.00
CB 19	RIM = 28.8 DMH 15 INV OUT = 25.29
CB 20	RIM = 29.5 DMH 17 INV OUT = 26.50
CB 21	RIM = 29.8 DMH 17 INV OUT = 25.03

STRUCTURE NAME	STRUCTURE DETAILS
DMH 1	RIM = 28.4 CB 4 INV IN = 24.38 CB 3 INV IN = 24.38 DMH 2 INV OUT = 24.28
DMH 2	RIM = 28.5 DMH 1 INV IN = 23.49 CB 2 INV IN = 23.49 CB 1 INV IN = 23.49 DMH 3 INV OUT = 23.14
DMH 3	RIM = 28.8 DMH 2 INV IN = 23.05 WQI 1 INV OUT = 22.72 SWMA 1 INV OUT = 21.35
DMH 4	RIM = 28.5 CB 5 INV IN = 23.60 CB 6 INV IN = 23.60 DMH 5 INV OUT = 23.50
DMH 5	RIM = 29.7 CB 7 INV IN = 22.37 DMH 4 INV IN = 22.37 DMH 6 INV OUT = 22.27
DMH 6	RIM = 29.9 DMH 5 INV IN = 22.17 WQI 2 INV OUT = 21.84 SWMA 2 INV OUT = 20.63
DMH 7	RIM = 29.9 CB 9 INV IN = 25.13 CB 8 INV IN = 25.13 DMH 8 INV OUT = 25.03
DMH 8	RIM = 30.1 DMH 7 INV IN = 24.90 WQI 3 INV OUT = 23.48 SWMA 3 INV OUT = 23.66
DMH 9	RIM = 29.9 CB 11 INV IN = 25.05 CB 12 INV IN = 25.05 DMH 10 INV OUT = 24.95
DMH 10	RIM = 29.7 DMH 9 INV IN = 24.86 CB 10 INV IN = 24.86 WQI 4 INV OUT = 24.53 SWMA 4 INV OUT = 23.00
DMH 11	RIM = 27.6 CB 13 INV IN = 23.09 CB 14 INV IN = 23.09 DMH 12 INV OUT = 22.99
DMH 12	RIM = 27.8 DMH 11 INV IN = 22.89 WQI 5 INV OUT = 22.56 SWMA 5 INV OUT = 21.34

STRUCTURE NAME	STRUCTURE DETAILS
DMH 13	RIM = 29.2 CB 15 INV IN = 24.60 WQI 6 INV OUT = 24.27 SWMA 6 INV OUT = 23.16
DMH 14	RIM = 29.8 CB 16 INV IN = 25.90 SWMA 7 INV OUT = 24.45 WQI 7 INV OUT = 25.57
DMH 15	RIM = 30.1 CB 19 INV IN = 24.49 CB 17 INV IN = 24.49 DMH 16 INV OUT = 24.39
DMH 16	RIM = 29.9 DMH 15 INV IN = 23.80 CB 18 INV IN = 23.80 WQI 8 INV OUT = 23.47 SWMA 8 INV OUT = 22.09
DMH 17	RIM = 30.1 CB 20 INV IN = 24.95 CB 21 INV IN = 24.95 SWMA 9 INV OUT = 23.55 WQI 9 INV OUT = 24.62

STRUCTURE NAME	STRUCTURE DETAILS
WQI 1	RIM = 29.0 DMH 3 INV IN = 22.63 SWMA 1 INV OUT = 21.80
WQI 2	RIM = 30.3 DMH 6 INV IN = 21.75 SWMA 2 INV OUT = 20.92
WQI 3	RIM = 30.3 DMH 8 INV IN = 24.51 SWMA 3 INV OUT = 23.68
WQI 4	RIM = 29.9 DMH 10 INV IN = 24.33 SWMA 4 INV OUT = 23.50
WQI 5	RIM = 28.0 DMH 12 INV IN = 22.47 SWMA 5 INV OUT = 21.64
WQI 6	RIM = 30.0 DMH 13 INV IN = 24.21 SWMA 6 INV OUT = 23.38
WQI 7	RIM = 30.1 DMH 14 INV IN = 25.51 SWMA 7 INV OUT = 24.68
WQI 8	RIM = 30.1 DMH 16 INV IN = 23.37 SWMA 8 INV OUT = 22.54
WQI 9	RIM = 30.1 DMH 17 INV IN = 24.52 SWMA 9 INV OUT = 23.69

PIPE NAME	SIZE	LENGTH	SLOPE	INV. UP	INV. DOWN
CB 1 to DMH 2	12"	92.3'	1.00%	24.41	23.49
CB 2 to DMH 2	12"	8.6'	0.93%	23.57	23.49
CB 3 to DMH 1	12"	8.6'	1.04%	24.47	24.38
CB 4 to DMH 1	12"	32.1'	1.00%	24.70	24.38
CB 5 to DMH 4	12"	107.7'	1.00%	24.68	23.60
CB 6 to DMH 4	12"	13.8'	1.02%	23.74	24.38
CB 7 to DMH 5	12"	37.2'	1.02%	22.75	22.37
CB 8 to DMH 7	12"	8.4'	0.96%	25.21	25.13
CB 9 to DMH 7	12"	127.1'	1.00%	26.40	25.13
CB 10 to DMH 10	12"	9.7'	1.03%	24.96	24.86
CB 11 to DMH 9	12"	81.9'	1.65%	26.40	25.05
CB 12 to DMH 9	12"	72.2'	1.04%	25.80	25.05
CB 13 to DMH 11	12"	121.5'	1.00%	24.30	23.09
CB 14 to DMH 11	12"	8.0'	1.00%	23.17	23.09

PIPE NAME	SIZE	LENGTH	SLOPE	INV. UP	INV. DOWN
CB 15 to DMH 13	12"	10.0'	1.00%	24.70	24.60
CB 16 to DMH 14	12"	10.0'	1.00%	26.00	25.90
CB 17 to DMH 15	12"	80.7'	1.00%	25.30	24.49
CB 18 to DMH 16	12"	18.2'	1.10%	24.00	23.81
CB 19 to DMH 15	12"	79.5'	1.01%	25.29	24.49
CB 20 to DMH 17	12"	104.5'	1.48%	26.50	24.95
CB 21 to DMH 17	12"	8.0'	1.00%	25.03	24.95
DMH 1 to DMH 2	12"	79.4'	1.00%	24.28	23.49
DMH 2 to DMH 3	15"	8.6'	1.04%	23.14	23.05
DMH 3 to SWMA 1	15"	14.5'	1.17%	21.35	21.18
DMH 3 to WQI 1	8"	6.0'	1.50%	22.72	22.63
DMH 4 to DMH 5	12"	112.9'	1.00%	23.50	22.37
DMH 5 to DMH 6	12"	9.8'	1.04%	22.27	22.17
DMH 6 to SWMA 2	12"	5.9'	1.02%	20.63	20.57

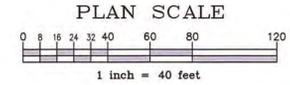
PIPE NAME	SIZE	LENGTH	SLOPE	INV. UP	INV. DOWN
DMH 6 to WQI 2	8"	9.1'	0.99%	21.84	21.75
DMH 7 to DMH 8	12"	10.9'	1.19%	25.03	24.90
DMH 8 to SWMA 3	12"	11.7'	1.28%	23.48	23.33
DMH 8 to WQI 3	12"	6.6'	0.91%	24.57	24.51
DMH 9 to DMH 10	12"	9.4'	0.96%	24.95	24.86
DMH 10 to SWMA 4	15"	17.5'	1.03%	23.00	22.82
DMH 10 to WQI 4	8"	6.0'	3.33%	24.53	24.33
DMH 11 to DMH 12	12"	9.8'	1.02%	22.99	22.89
DMH 12 to SWMA 5	12"	5.0'	1.00%	21.34	21.29
DMH 12 to WQI 5	8"	6.5'	3.33%	22.56	22.47
DMH 13 to SWMA 6	12"	12.7'	1.10%	23.16	23.02
DMH 13 to WQI 6	8"	6.2'	0.97%	24.27	24.21
DMH 14 to SWMA 7	12"	13.7'	1.02%	24.45	24.31
DMH 14 to WQI 7	8"	6.2'	0.97%	25.57	25.51

PIPE NAME	SIZE	LENGTH	SLOPE	INV. UP	INV. DOWN
DMH 6 to WQI 2	8"	9.1'	0.99%	21.84	21.75
DMH 7 to DMH 8	12"	10.9'	1.19%	25.03	24.90
DMH 8 to SWMA 3	12"	11.7'	1.28%	23.48	23.33
DMH 8 to WQI 3	12"	6.6'	0.91%	24.57	24.51
DMH 9 to DMH 10	12"	9.4'	0.96%	24.95	24.86
DMH 10 to SWMA 4	15"	17.5'	1.03%	23.00	22.82
DMH 10 to WQI 4	8"	6.0'	3.33%	24.53	24.33
DMH 11 to DMH 12	12"	9.8'	1.02%	22.99	22.89
DMH 12 to SWMA 5	12"	5.0'	1.00%	21.34	21.29
DMH 12 to WQI 5	8"	6.5'	3.33%	22.56	22.47
DMH 13 to SWMA 6	12"	12.7'	1.10%	23.16	23.02
DMH 13 to WQI 6	8"	6.2'	0.97%	24.27	24.21
DMH 14 to SWMA 7	12"	13.7'	1.02%	24.45	24.31
DMH 14 to WQI 7	8"	6.2'	0.97%	25.57	25.51

T.O.F. = TOP OF FOUNDATION (TYP.)
F.F.E. = FIRST FLOOR ELEVATION (TYP.)

SITE BENCHMARK (2):
CATCH BASIN RIM
EL. = 30.08 (NAV088)

COMMONWEALTH OF MASSACHUSETTS
DONALD P. BRACKEN, JR.
CIVIL ENGINEER
No. 37071
REGISTERED PROFESSIONAL ENGINEER
Donald P. Bracken, Jr.
2/28/20



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Sheet Title:
GRADING & DRAINAGE
"SURFSIDE CROSSING"
A
PROPOSED 40B DEVELOPMENT
IN NANTUCKET, MASSACHUSETTS
Prepared For:
SURFSIDE CROSSING, LLC
#3, 5, 7 & 9 SOUTH SHORE ROAD
MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By
1	2/28/20	GENERAL REDESIGN	RMM

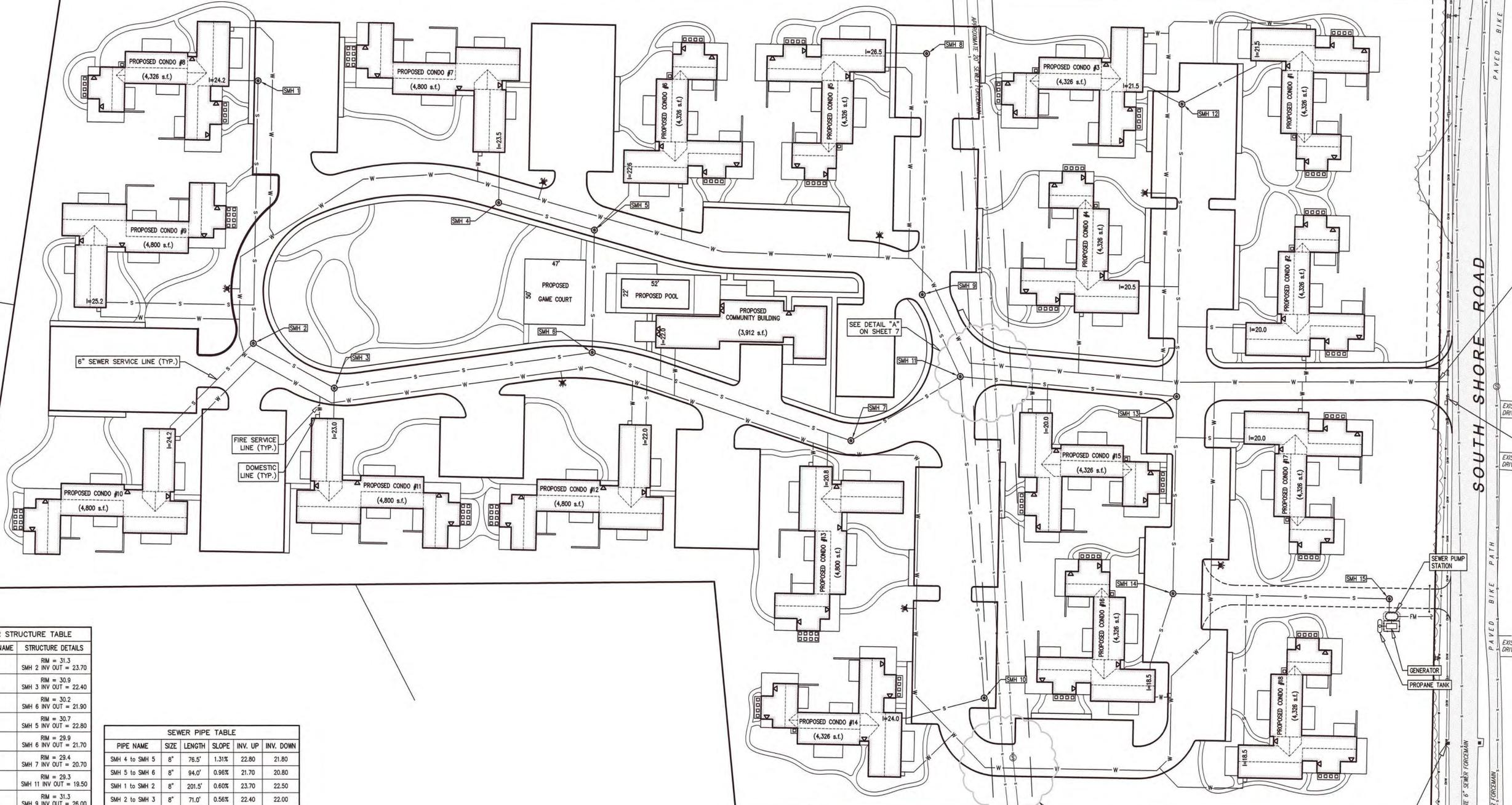
Date: FEBRUARY 15, 2018 Drawn: RMM/ERC/BEI Checked: DFB/AMG Sheet: 4 of 9

S:\AutoCAD Drawings\Nantucket\South Shore Rd\3-8 South Shore Road\CAD Files\Surfside Crossing - Site Development (rev15).dwg



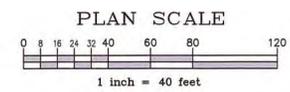
CBDH FND. CBDH FND.

SITE BENCHMARK (1):
CATCH BASIN RIM
E.L. = 29.79 (NAV88)



PROPOSED WATER MAIN (TYP.)
SIZES, VALVES AND
APPURTENANCES TO BE
SHOWN ON FINAL
CONSTRUCTION PLANS

EXISTING UTILITY POLE
TO BE RELOCATED.



SEWER STRUCTURE TABLE	
STRUCTURE NAME	STRUCTURE DETAILS
SMH 1	RIM = 31.3 SMH 2 INV OUT = 23.70
SMH 2	RIM = 30.9 SMH 3 INV OUT = 22.40
SMH 3	RIM = 30.2 SMH 6 INV OUT = 21.90
SMH 4	RIM = 30.7 SMH 5 INV OUT = 22.80
SMH 5	RIM = 29.9 SMH 6 INV OUT = 21.70
SMH 6	RIM = 29.4 SMH 7 INV OUT = 20.70
SMH 7	RIM = 29.3 SMH 11 INV OUT = 19.50
SMH 8	RIM = 31.3 SMH 9 INV OUT = 26.00
SMH 9	RIM = 29.7 SMH 11 INV OUT = 23.20
SMH 10	RIM = 30.3 SMH 11 INV OUT = 23.00
SMH 11	RIM = 30.3 SMH 13 INV OUT = 18.90
SMH 12	RIM = 29.9 SMH 13 INV OUT = 19.50
SMH 13	RIM = 29.6 SMH 14 INV OUT = 17.20
SMH 14	RIM = 29.3 SMH 15 INV OUT = 16.30
SMH 15	RIM = 30.1

SEWER PIPE TABLE					
PIPE NAME	SIZE	LENGTH	SLOPE	INV. UP	INV. DOWN
SMH 4 to SMH 5	8"	76.5'	1.31%	22.80	21.80
SMH 5 to SMH 6	8"	94.0'	0.96%	21.70	20.80
SMH 1 to SMH 2	8"	201.5'	0.60%	23.70	22.50
SMH 2 to SMH 3	8"	71.0'	0.56%	22.40	22.00
SMH 3 to SMH 6	8"	200.1'	0.55%	21.90	20.80
SMH 6 to SMH 7	8"	210.0'	0.52%	20.70	19.60
SMH 7 to SMH 11	8"	97.3'	0.51%	19.50	19.00
SMH 11 to SMH 13	8"	167.0'	0.96%	18.90	17.30
SMH 13 to SMH 14	8"	150.5'	0.53%	17.20	16.40
SMH 14 to SMH 15	8"	166.3'	0.60%	16.30	15.30
SMH 10 to SMH 11	8"	246.6'	1.62%	23.00	19.00
SMH 12 to SMH 13	8"	224.5'	0.98%	19.50	17.30
SMH 8 to SMH 9	8"	185.0'	1.46%	26.00	23.30
SMH 9 to SMH 11	8"	69.1'	6.08%	23.20	19.00

NOTE:
ELECTRIC, TELEPHONE, AND CABLE / TV
INFRASTRUCTURE IS TO BE DESIGNED BY OTHERS.
FINAL LOCATIONS AND DETAILS TO BE INCORPORATED
IN FINAL CONSTRUCTION PLANS.

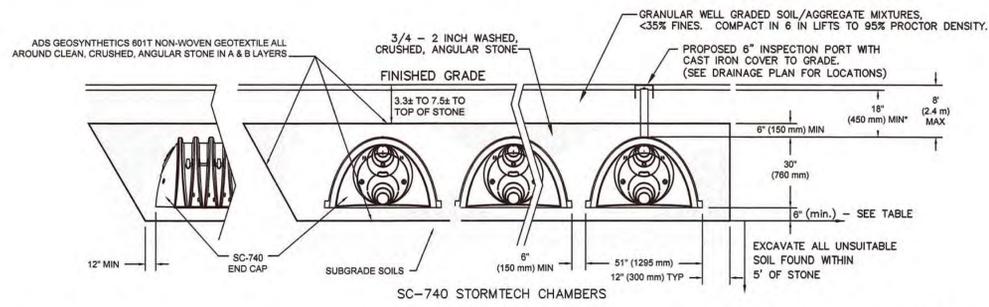
Prepared By:

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Sheet Title:
UTILITY PLAN
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 A
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 IN NANTUCKET, MASSACHUSETTS**
 Prepared For:
SURFSIDE CROSSING, LLC
 #3, 5, 7 & 9 SOUTH SHORE ROAD
 MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

No.	Date	Revision Description	By
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Date: FEBRUARY 15, 2018 Drawn: RMM/ERC/BE Checked: DFB/AMG Sheet: 5 of 9



NOTES:
 CHAMBERS SHALL MEET ASTM F 2418-05 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".

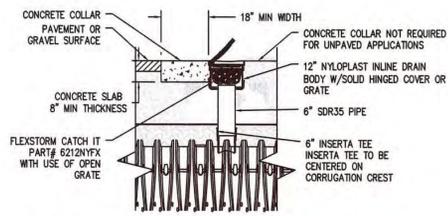
THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE THE SAFETY FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS, WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.

THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE SAFETY FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS.

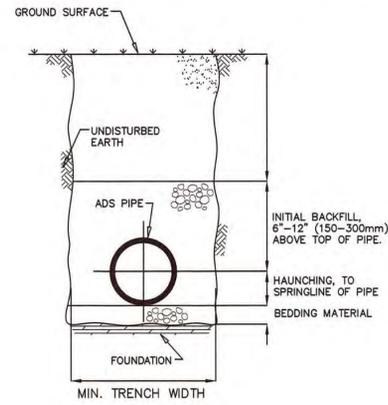
UNSUITABLE SOILS: SURFICIAL ORGANICS, SURFICIAL OR BURIED TOP SOIL/SUB SOIL, OLD FOUNDATION, UTILITIES, PAVEMENT, FILL AND ALL OTHER DELETERIOUS MATERIAL.

SOIL INSPECTION: THE DESIGN ENGINEER SHALL CONDUCT A BOTTOM OF EXCAVATION TEST, TO VERIFY THE UNSUITABLE MATERIALS HAVE BEEN REMOVED PRIOR TO BACKFILL OF SAND AND PRIOR TO THE INSTALLATION OF THE CRUSHED STONE BASE.

PROTECTION: INFILTRATION AREAS ARE TO BE PROTECTED DURING CONSTRUCTION AND AVOID OVER COMPACTION TO INSURE THE INFILTRATION CAPACITY IS MAINTAINED.



STORMTECH INSPECTION PORT DETAIL
 NOT TO SCALE



NOTES:
 1. **FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH A FOUNDATION OF CLASS I OR II MATERIAL AS DEFINED IN ASTM D2321, "STANDARD PRACTICE FOR INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS," LATEST EDITION; AS AN ALTERNATIVE AND AT THE DISCRETION OF THE ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A WOVEN GEOTEXTILE FABRIC.

2. **BEDDING, HAUNCHING & INITIAL BACKFILL:** SUITABLE MATERIAL SHALL CONSIST OF CLEAN, HARD, PARTICLES OF GRAVEL MEETING THE FOLLOWING:

SIZE SIZES	PASSING
3/8"	85-95%
NO. 8	5-15%
	0-2%

MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

MINIMUM BEDDING THICKNESS SHALL BE 4" (100MM) FOR 4"-24" (100-600MM) AND 42"-48" (1050-1200MM) CORRUGATED POLYETHYLENE PIPE (CPEP); 6" (150MM) FOR 30"-36" (750-900MM) CPEP.

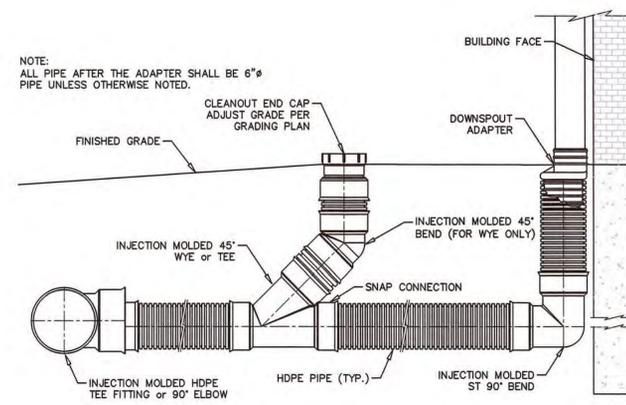
4. **MINIMUM TRENCH WIDTHS SHALL BE AS FOLLOWS:**

NOMINAL Ø	MIN. RECOMMENDED TRENCH WIDTH, in. (mm)
8 (200)	25 (630)
10 (250)	28 (710)
12 (300)	31 (790)
15 (375)	34 (860)
18 (450)	39 (990)

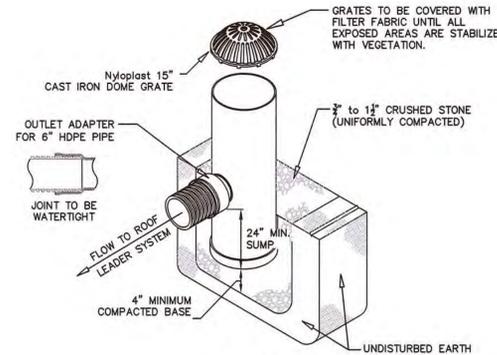
5. **MINIMUM COVER:** MINIMUM RECOMMENDED DEPTHS OF COVER FOR VARIOUS LIVE LOADING CONDITIONS ARE SUMMARIZED IN THE FOLLOWING TABLE, UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE TAKEN FROM THE TOP OF PIPE TO THE GROUND SURFACE.

SURFACE LIVE LOADING CONDITION	MINIMUM RECOMMENDED COVER, in. (mm)
H25 (FLEXIBLE PAVEMENT)	12 (300)*
H25 (RIGID PAVEMENT)	12 (300)
E80 RAILWAY	24 (610)
HEAVY CONSTRUCTION	48 (1220)

*TOP OF PIPE TO BOTTOM OF BITUMINOUS PAVEMENT SECTION



TYPICAL ROOF DRAIN DETAIL
 NOT TO SCALE



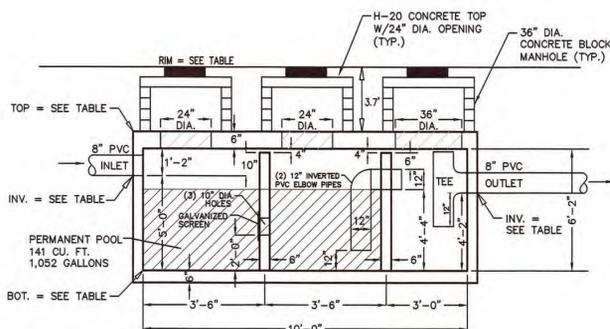
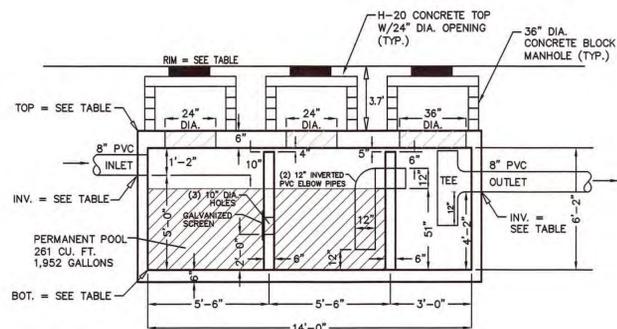
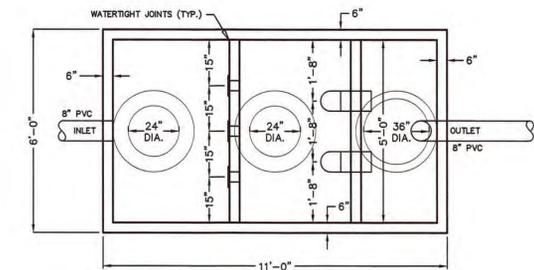
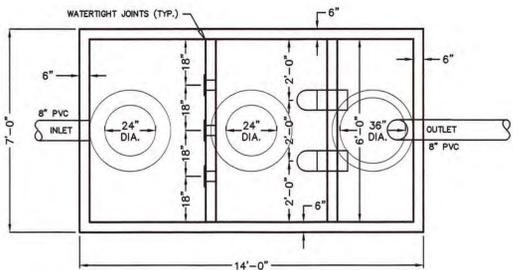
FIELD DRAIN DETAIL
 NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
 DONALD F. BRACKEN, JR.
 CIVIL
 No. 37071
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SYSTEM SIZE	# OF UNITS	# OF ROWS	TOP OF STONE	TOP OF CHAMBER	INVERT IN	8" INLET	BOTTOM CHAMBER	BOTTOM STONE	FINISHED GRADE
SWMA #1 30.00' x 103.30' x 4.0'	84	6	23.39	22.89	21.18 (15')	21.76	20.39	19.39	29.5± to 28.5±
SWMA #2 25.25' x 74.82' x 4.0'	50	5	22.53	22.03	20.57 (12')	20.90	19.53	18.53	30.0± to 28.7±
SWMA #3 20.50' x 74.82' x 4.0'	40	4	25.29	24.79	23.33 (12')	23.66	22.29	21.29	31.5± to 30.0±
SWMA #4 44.25' x 67.70' x 4.0'	81	9	25.03	24.53	22.82 (15')	23.40	22.03	21.03	31.5± to 30.0±
SWMA #5 25.25' x 74.82' x 4.0'	50	5	23.25	22.75	21.29 (12')	21.62	20.25	19.25	29.5± to 27.7±
SWMA #6 25.25' x 60.58' x 4.0'	40	5	24.98	24.48	23.02 (12')	23.35	21.98	20.98	30.0± to 28.9±
SWMA #7 25.25' x 39.22' x 3.5'	25	5	26.27	25.77	24.31 (12')	24.64	23.77	22.77	30.5± to 29.6±
SWMA #8 39.50' x 60.58' x 4.0'	64	8	24.13	23.63	21.92 (15')	22.50	21.13	20.13	30.6± to 29.4±
SWMA #9 25.25' x 67.70' x 4.0'	45	5	25.20	24.70	23.32 (12')	23.65	22.20	21.20	31.5± to 30±

STORMWATER MANAGEMENT AREAS #1 THROUGH #9
 NOT TO SCALE

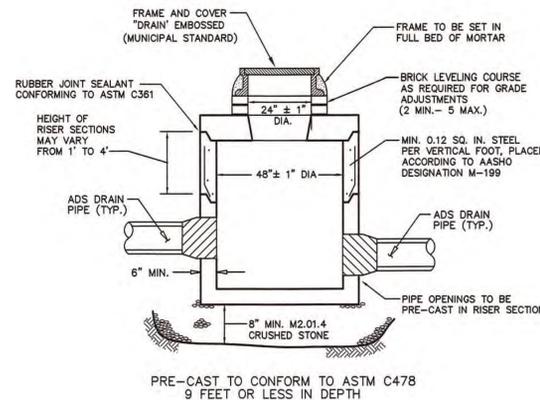
TRENCH CROSS-SECTION & A.D.S. PIPE INSTALLATION DETAIL
 NOT TO SCALE



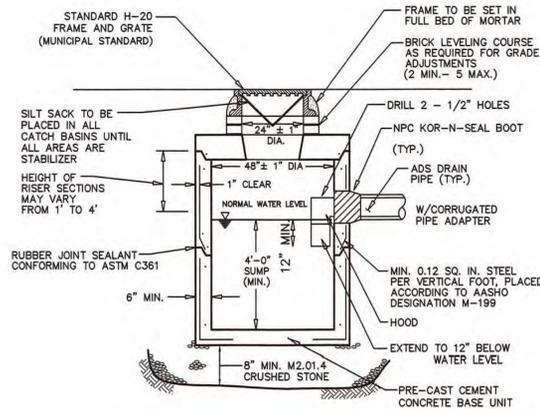
WQI #	RIM	TOP OF CHAMBER	INVERT IN	INVERT OUT	BOTTOM INTERIOR
#1	29.0	24.30	22.63	21.80	17.63
#2	30.2	23.42	21.75	20.92	16.75
#4	29.9	26.00	24.33	23.50	19.33
#5	28.0	24.14	22.47	21.64	17.47
#8	29.9	25.04	23.37	22.54	18.37
#9	30.1	26.19	24.52	23.69	19.52

3 CHAMBER WATER QUALITY INLET DETAILS
 NOT TO SCALE

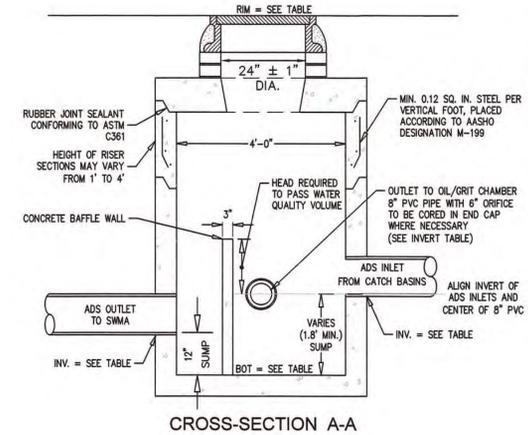
WQI #	RIM	TOP OF CHAMBER	INVERT IN	INVERT OUT	BOTTOM INTERIOR
#3	30.4	26.18	24.51	23.68	19.51
#6	28.9	25.88	24.21	23.38	19.21
#7	30.1	27.18	25.51	24.68	20.51



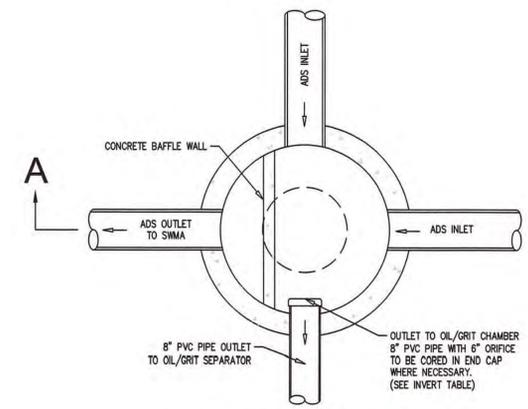
PRE-CAST CONCRETE DRAIN MANHOLE
 NOT TO SCALE



PRE-CAST CONCRETE CATCH BASIN
 NOT TO SCALE



CROSS-SECTION A-A



DIVERTER MANHOLE DETAIL
 NOT TO SCALE - USE DIMENSIONS

DIVERTER MANHOLE TABLE

DIVERTER DMH #	RIM	INVS. IN (SIZE)	8" INVERT	ORIFICE SIZE	TOP BAFFLE	INV. OUT	BOT. INT.
#3	28.8	23.05(15')	22.72	6"	23.66	21.35(15')	20.35
#6	30.0	22.17(12')	21.84	6"	22.84	20.63(12')	19.63
#8	30.0	24.90(12')	24.57	6"	25.57	23.48(12')	22.48
#10	29.6	24.86(12')	24.53	6"	25.71	23.00(15')	22.00
#12	27.8	22.89(12')	22.56	6"	24.18	21.34(12')	20.34
#13	28.8	24.60(12')	24.27	6"	24.74	23.18(12')	22.16
#14	29.8	25.90(12')	25.57	6"	25.93	24.45(12')	23.45
#16	29.9	23.80(12')	23.47	6"	23.86	22.09(15')	21.09
#17	29.9	24.95(12')	24.62	6"	25.30	23.55(12')	22.55

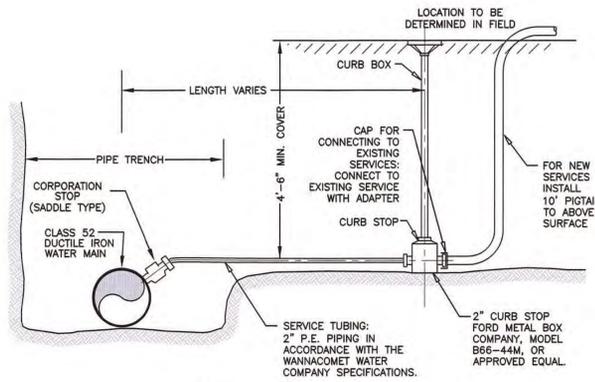
NOTE:
 DETAILS SHOWN FOR PLANNING AND PERMITTING PURPOSES ONLY, FINAL DETAILS, SPECIFICATIONS, AND CONSTRUCTION NOTES TO BE INCLUDED ON FINAL CONSTRUCTION DRAWINGS.

Prepared By:
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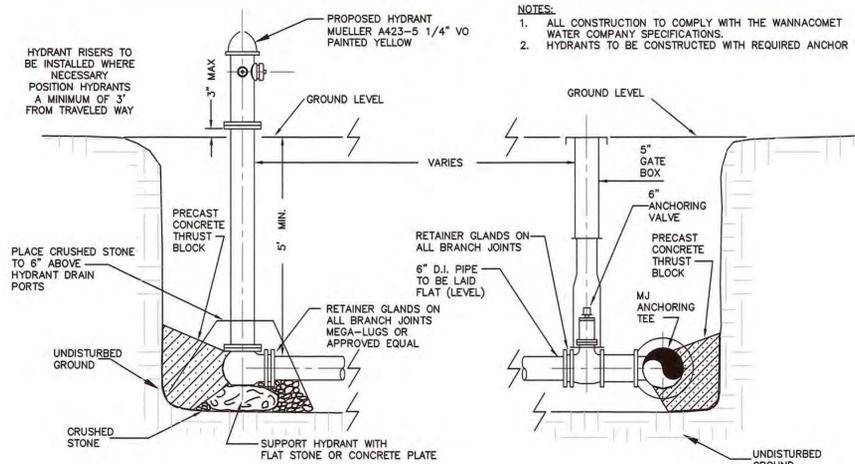
Sheet Title:
DRAINAGE DETAILS

"SURFSIDE CROSSING"
 A
PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS
 Prepared For:
SURFSIDE CROSSING, LLC
 #3, 5, 7 & 9 SOUTH SHORE ROAD
 MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

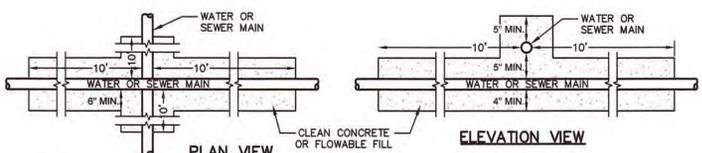
Date	Revision	Description	By
1 2/28/20	GENERAL REDESIGN		RM
No.	Date	Revision Description	By
1	2/28/20	GENERAL REDESIGN	RM
2	FEBRUARY 15, 2018	RMM/ERC/BEI	DFB/AMG
Checked:	DFB/AMG	6 of 9	



TYPICAL SERVICE CONNECTION
NOT TO SCALE

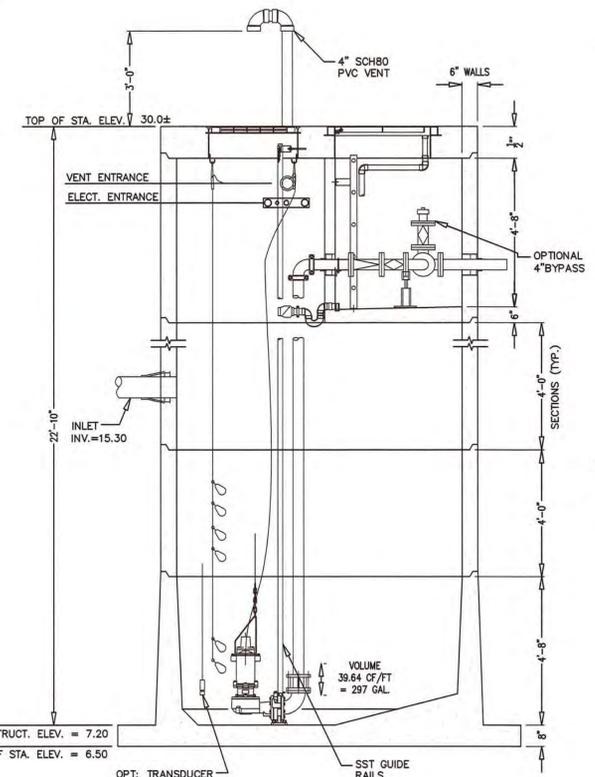


TYPICAL HYDRANT ASSEMBLY INSTALLATION
NOT TO SCALE

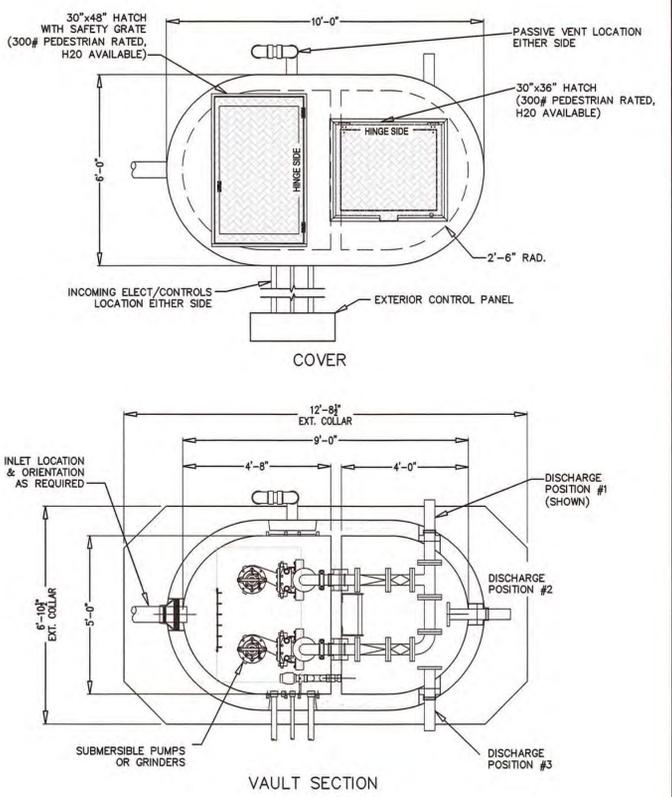


- NOTES:**
1. PROVIDE WHEN SEWER CROSSES OVER WATER OR SEPARATION IS LESS THAN 18" BETWEEN WATER AND SEWER.
 2. CONTRACTOR TO NOTIFY & COORDINATE ANY ENCASEMENTS WITH THE WATER DEPARTMENT PRIOR TO INSTALLATION.

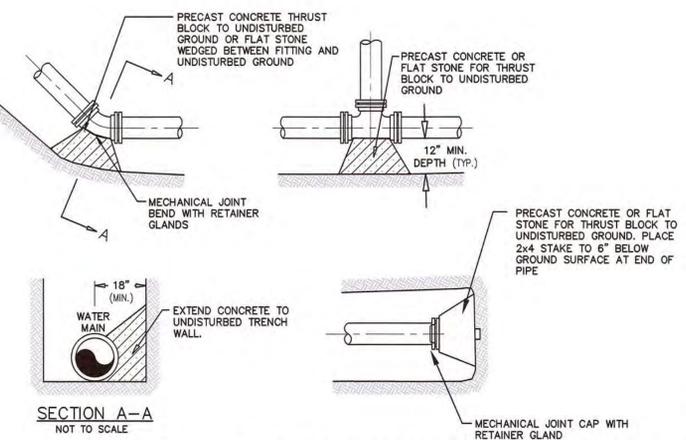
TYPICAL ENCASED SEWER AND WATER MAIN CROSSING
NOT TO SCALE



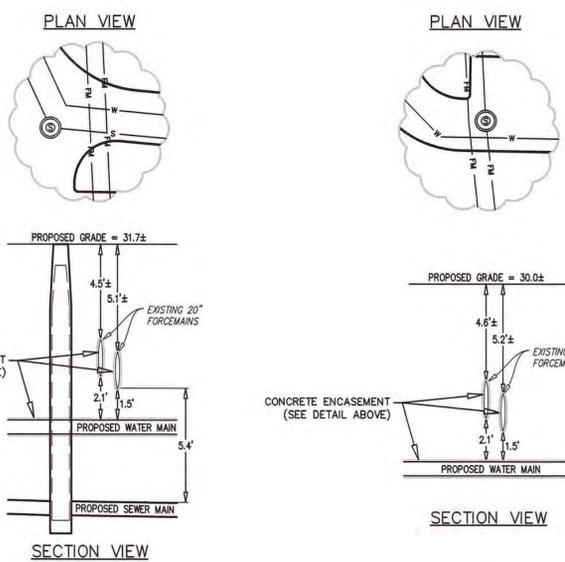
INTERIOR ELEVATION VIEW
RC509 x 22'-10"



TYPICAL SEWER PUMP STATION DETAIL
NOT TO SCALE

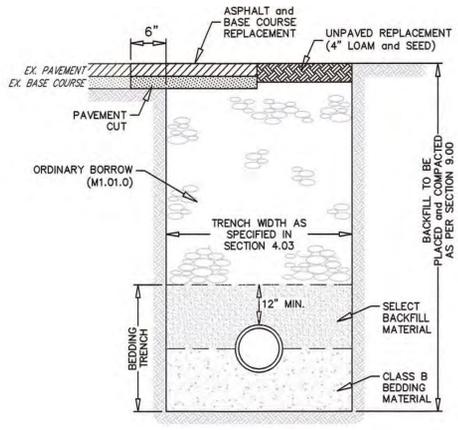


TYPICAL THRUST BLOCK DETAILS
NOT TO SCALE

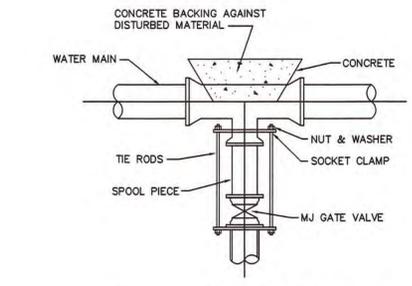


WATER/SEWER CROSSING
DETAIL "A"
NOT TO SCALE

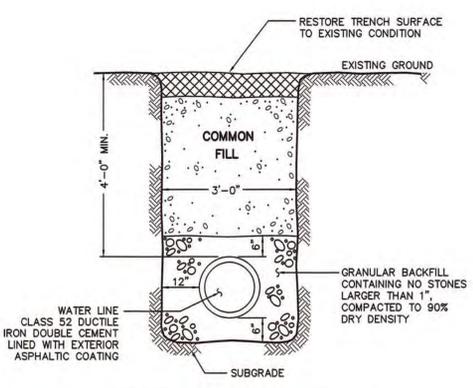
WATER/SEWER CROSSING
DETAIL "B"
NOT TO SCALE



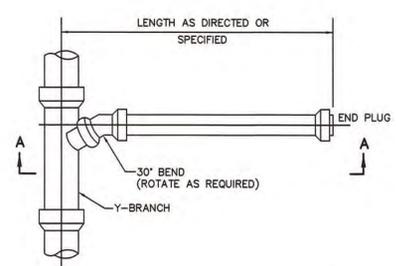
TYPICAL SEWER TRENCH DETAIL
NOT TO SCALE



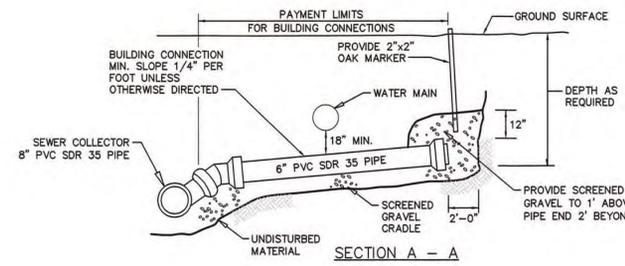
TYPICAL VALVE CONNECTION
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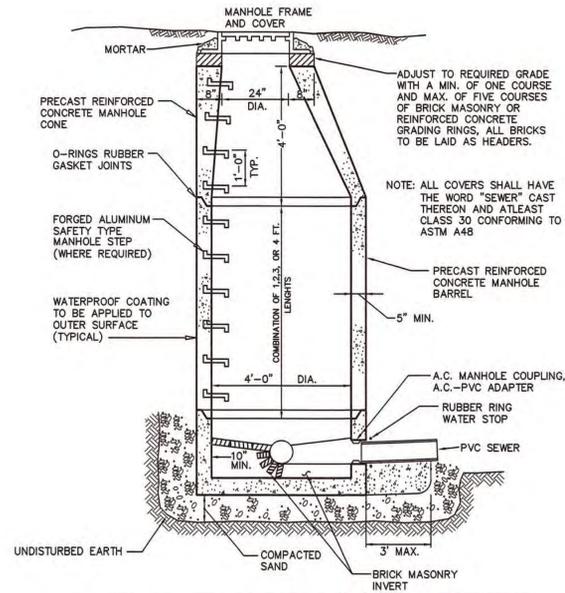
WATER MAIN TRENCH DETAIL
NOT TO SCALE



BUILDING SEWER CONNECTION
NOT TO SCALE



SECTION A - A



STANDARD SEWER MANHOLE SECTION
NOT TO SCALE



NOTE:
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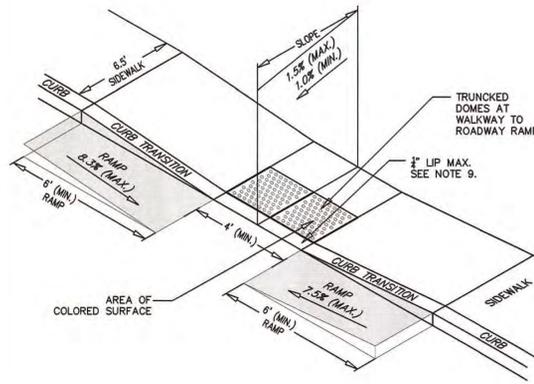
Sheet Title:
WATER & SEWER DETAILS

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Checked: DFB/AMG
Sheet: 7 of 9

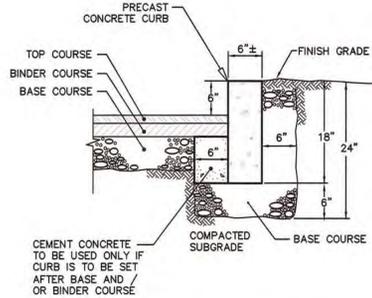
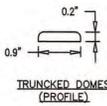
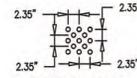
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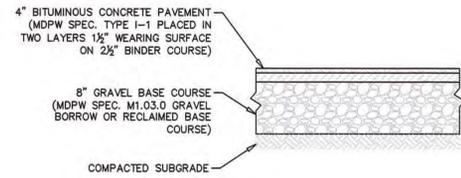
HANDICAP RAMP DETAIL
NOT TO SCALE

NOTE: FINAL LOCATIONS AND DESIGN TO BE INCORPORATED INTO FINAL CONSTRUCTION PLANS.

- NOTES:
1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5% (1.0% MIN.).
 2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMP SHALL BE 5%.
 3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMP SHALL BE 7.5%.
 4. A MINIMUM DISTANCE OF 3' CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN THE ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
 5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
 6. RAMP, CURB, AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
 7. TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
 8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200'.
 9. ELIMINATE CURBING AT RAMP WHERE IT ABUTS ROADWAY, EXCEPT WHERE VERTICAL CURBING IS INDICATED ON THE DRAWING TO BE INSTALLED AND SET FLUSH.
 10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY AND AUDIBLY WITH ADJOINING SURFACES.



PRECAST CONCRETE CURB
NOT TO SCALE

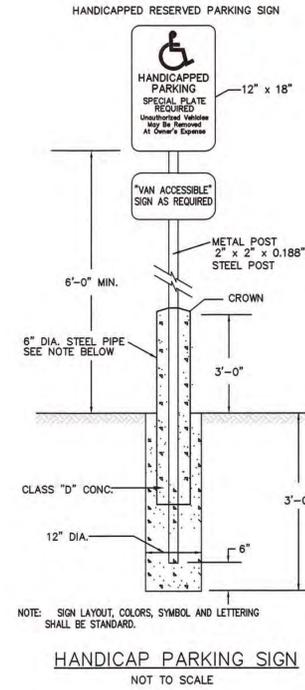


- NOTE:
1. SANDY LOAM and/or LOAMY SAND TOPSOIL MATERIAL SHALL BE EXCAVATED FROM ALL PAVED AREAS PRIOR TO SUB-BASE INSTALLATION.
 2. SUB-GRADE (EXISTING MATERIAL) SHALL CONSIST OF INERT MATERIAL THAT IS HARD, DURABLE STONE and/or COARSE SAND, FREE FROM LOAM AND CLAY TO A DEPTH NOT LESS THAN 4 FEET BELOW THE FINISH PAVEMENT SURFACE.
 3. SUBGRADE FILL SHALL BE COMPACTED TO 95% COMPACTION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 4. SEE SITE LAYOUT PLAN FOR PAVEMENT WIDTH and LOCATION.
 5. SEE GRADING PLAN FOR PAVEMENT SLOPE and CROSS SLOPE.
 6. PRIOR TO INSTALLING THE WEARING COURSE, THE EXISTING BINDER COURSE SURFACE SHALL BE SWEEPED COMPLETELY CLEAN BY A STREET SWEEPING MACHINE AND A TACK COAT SHALL BE INSTALLED TO A LEVEL APPROVED BY THE ENGINEER.

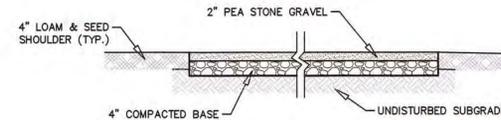
PAVEMENT SECTION
NOT TO SCALE



HANDICAP PARKING DETAIL
NOT TO SCALE



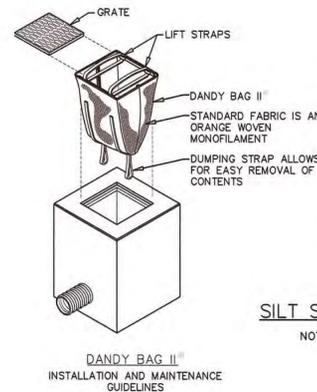
HANDICAP PARKING SIGN
NOT TO SCALE



PEASTONE PATH SECTION
NOT TO SCALE

EROSION & SEDIMENT CONTROL NOTES:

1. THE SITE CONSTRUCTION FOREMAN SHALL BE DESIGNATED AS THE ON-SITE PERSONNEL RESPONSIBLE FOR THE DAILY INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROLS AND SHALL IMPLEMENT ALL NECESSARY MEASURES TO CONTROL EROSION AND PREVENT SEDIMENT FROM LEAVING THE SITE.
2. THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES AS SHOWN ON THE PLANS IN CONSULTATION WITH THE TOWN AND AS DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER BEFORE ANY CONSTRUCTION ACTIVITIES ARE TO BEGIN. THESE MEASURES SHALL BE CHECKED, MAINTAINED, REPLACED AS NECESSARY DURING THE ENTIRE CONSTRUCTION PERIOD OF THE PROJECT, SUCH MEASURES SHALL REPRESENT THE LIMIT OF WORK. WORKERS SHALL BE INFORMED THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGH THE CONSTRUCTION PERIOD.
3. A MINIMUM SURPLUS OF 50 FEET OF EROSION CONTROL BARRIER (SILT FENCE, STRAWBALE &/OR SILT SOCK) SHALL BE STOCKPILED ON-SITE AT ALL TIMES.
4. A CONSTRUCTION EXIT SHALL BE CONSTRUCTED AS SHOWN IN THE DETAILS TO SHED DIRT FROM CONSTRUCTION VEHICLE TIRES. THE CRUSHED STONE PAD WILL BE REPLACED/CLEANED AS NEEDED TO MAINTAIN ITS EFFECTIVENESS.
5. THE LIMIT OF ALL CLEARING, GRADING AND DISTURBANCES SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. THE CONTRACTOR SHALL PHASE THE SITE WORK IN A MANNER TO MINIMIZE AREAS OF EXPOSED SOIL. IF TREES ARE TO BE CUT ON THE ENTIRE SITE, ONLY THOSE AREAS WHICH ARE ACTIVELY UNDER CONSTRUCTION SHALL BE GRUBBED. THE REQUIRED SEDIMENTATION CONTROL FACILITIES MUST BE PROPERLY ESTABLISHED, CLEARLY VISIBLE AND IN OPERATION PRIOR TO INITIATING ANY LAND CLEARING ACTIVITY AND/OR OTHER CONSTRUCTION RELATED WORK.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MONITOR LOCAL WEATHER REPORTS DURING CONSTRUCTION AND PRIOR TO SCHEDULING EARTHMOVING OR OTHER CONSTRUCTION ACTIVITIES WHICH WILL LEAVE LARGE DISTURBED AREAS UN-STABILIZED. IF INCLEMENT WEATHER IS PREDICTED, THE CONTRACTOR SHALL USE THEIR BEST PROFESSIONAL JUDGEMENT WHEN SCHEDULING CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR ENSURING THE NECESSARY EROSION CONTROL DEVICES ARE INSTALLED AND FUNCTIONING PROPERLY TO MINIMIZE EROSION FROM ANY IMPENDING WEATHER EVENTS.
7. ESC MEASURES SHALL BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT OF 0.25 INCH OR GREATER DURING CONSTRUCTION TO ENSURE THAT THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE INTACT AND FUNCTIONING PROPERLY. IDENTIFIED DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY NO LATER THAN 24 HOURS AFTER IDENTIFICATION.
8. SOIL STOCKPILES LEFT OVERNIGHT SHALL BE SURROUNDED ON THEIR PERIMETERS WITH SILT SOCK, SILT FENCE, STRAWBALES OR A COMBINATION OF SILT FENCE WITH STRAWBALE, AS DETERMINED NECESSARY.
9. DISTURBED AREAS AND SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. THE CONTRACTOR SHOULD PROVIDE APPROPRIATE STABILIZATION PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY AREAS HAVING A SLOPE GREATER THAN 3:1 SHALL BE REINFORCED WITH EROSION BLANKETS OR APPROVED EQUIVALENT UNTIL THE SITE IS PROPERLY STABILIZED. TEMPORARY SWALES MAY ALSO BE REQUIRED IF DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER.
10. THE CONTRACTOR SHALL INSTALL A SILT SACK OR APPROVED EQUIVALENT IN EACH EXISTING CATCH BASIN RECEIVING RUNOFF FROM THE SITE. UPON THE INSTALLATION OF EACH CATCH BASIN, THE CONTRACTOR SHALL INSTALL A SILT SACK OR APPROVED EQUIVALENT. THESE ARE TO BE INSPECTED AFTER EACH SIGNIFICANT STORM EVENT AND REMOVED AND EMPTIED AS NEEDED DURING THE ENTIRE CONSTRUCTION PERIOD.
11. SMALL SEDIMENTATION BASINS MAY BE CONSTRUCTED ON AN AS-NEEDED BASIS DURING CONSTRUCTION TO AND IN THE CAPTURE OF SITE RUNOFF AND SEDIMENT. IT WILL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR, IN CONSULTATION WITH THE ENGINEER, TO SIZE AND CREATE THESE BASINS IN APPROPRIATE LOCATIONS.
12. THE CONTRACTOR SHALL CONTAIN ALL SEDIMENT ON-SITE. ALL EXITS FROM THE SITE WILL BE SWEEPED AS NECESSARY INCLUDING ANY SEDIMENT TRACKING. PAVED AREAS SHALL BE SWEEPED AS NEEDED TO REMOVE SEDIMENT AND POTENTIAL POLLUTANTS WHICH MAY ACCUMULATE DURING SITE WORK.
13. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM ALL TEMPORARY PRACTICES AND DISPOSED OF IN A PRE-APPROVED LOCATION BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
14. THE CONTRACTOR SHALL PROVIDE ON-SITE OR MAKE READILY AVAILABLE THE NECESSARY EQUIPMENT AND SITE PERSONNEL DURING CONSTRUCTION HOURS FOR THE DURATION OF THE PROJECT TO ENSURE ALL ESC DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER. IF SITE WORK IS SUSPENDED DURING THE WINTER MONTHS, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE PERSONNEL AND EQUIPMENT EITHER ON-SITE OR MAKE READILY AVAILABLE TO ENSURE ALL ESC DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER.
15. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE ENGINEER.
16. THE CONTRACTOR IS RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE DURING CONSTRUCTION OF ALL STORMWATER FACILITIES INSTALLED BY THE PROJECT. ANY SEDIMENT OR DEBRIS COLLECTED WITHIN THESE FACILITIES FROM THE PROJECT WORK SHALL BE REMOVED PRIOR TO THE OWNER'S ACCEPTANCE.

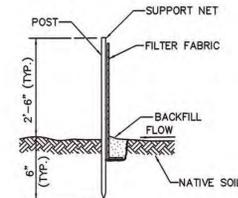


DANDY BAG II
INSTALLATION AND MAINTENANCE GUIDELINES

INSTALLATION:
REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS, PLACE ABSORBENT PILLION IN UNIT. STAND THE GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE DANDY BAG II SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE:
REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE DANDY BAG II. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS, REPLACE ABSORBENT WHEN NEAR SATURATION.

SILT SACK DETAIL
NOT TO SCALE



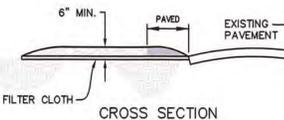
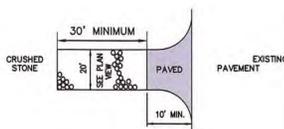
SILTATION FENCE DETAIL
NOT TO SCALE

TRACKING PAD NOTES:

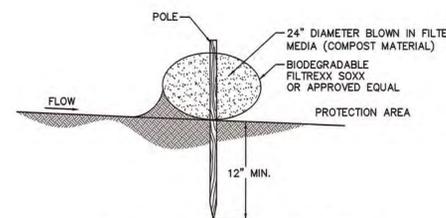
STONE SIZE - USE 2" CRUSHED STONE
FILTER CLOTH - SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. STONE USED SHALL BE LARGE ENOUGH SO THAT IT DOES NOT GET PICKED UP AND TRACKED OFF THE SITE BY THE VEHICLE TRAFFIC.

SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHOULD BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM SHOULD BE PERMITTED.

MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANING OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.



TEMPORARY TRACKING PAD DETAIL
NOT TO SCALE



FILTREXX SOXX BARRIER DETAIL
NOT TO SCALE

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Sheet Title:
CONSTRUCTION DETAILS

"SURFSIDE CROSSING"
A
PROPOSED 40B DEVELOPMENT IN NANTUCKET, MASSACHUSETTS

Prepared For:
SURFSIDE CROSSING, LLC
#3, 5, 7 & 9 SOUTH SHORE ROAD
MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

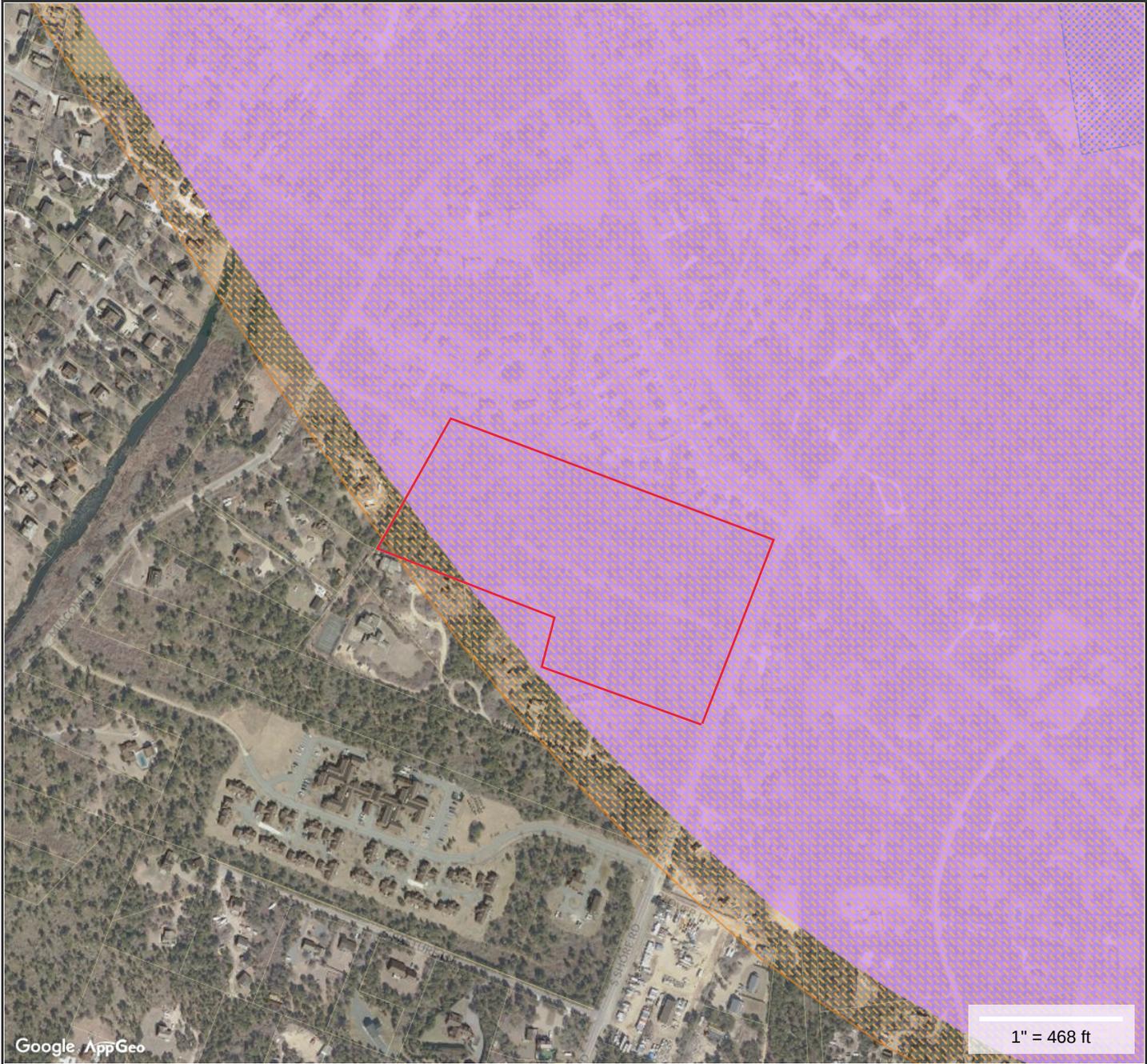
Professional Engineer Seal for Donald F. Bracken, Jr., No. 37071, State of Massachusetts, dated 2/26/20.

No.	Date	Revision Description	By
1	2/28/20	GENERAL REDESIGN	RMM

Date: FEBRUARY 15, 2018
Drawn: RMM/ERC/BEI
Checked: DFB/AMG
Sheet: 8 of 9

Attachment L

Water Resource Protection Map



**MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT**

Town and County of Nantucket, MA makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 11/13/2018
Data updated 11/19/2018

Map Theme Legends

Aerial Image, 2019

 PARCELS

MassGIS,

Water Resource Protection

Watershed



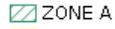
Zone II Wellhead Protection Areas



Interim Wellhead Protection Area



Surface Water Protection Zones



ZONE A



ZONE B



ZONE C

Water Protection Districts

Hummock Pond Watershed Protection Zones

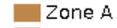


Zone A



Zone B

Madaket Harbor Watershed Protection Zones



Zone A



Zone B

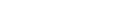
Wellhead Protection District



Harbor Watershed Protection Zones



Zone A



Zone B