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September 6, 2016

VIA HAND DELIVERY

Falmouth Town Council
Falmouth Planning Board
c/o Ethan Croce, Town Planner
Town of Falmouth
271 Falmouth Rd.
Falmouth, ME 04105

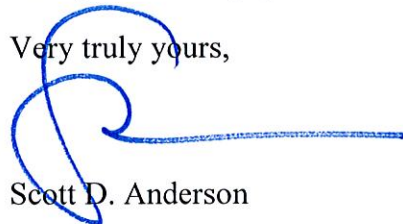
RE: Conditional Rezoning for Proposed Verizon Wireless Tier III Wireless Service Facility
175 Falmouth Rd., Falmouth, ME

Dear Sir or Madam:

On behalf of Verizon Wireless and pursuant to Article II-8-10 Section 8-350 of the Personal Wireless Service Facilities Siting Ordinance, enclosed please find an amended request for Conditional Rezoning for the construction of a wireless telecommunications facility on property located at 175 Falmouth Rd., Falmouth, ME.

At its meeting on August 8, 2016 the Town Council voted to refer this matter to the Falmouth Planning Board for review and comment. We look forward to discussing this project with the Board at its October 4th meeting. Please do not hesitate to contact the project manager, Charles Fredette (at 603-848-1461), or me should you have any questions.

Very truly yours,



Scott D. Anderson

SDA/mtt
Enclosures
cc: Charles Fredette

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REQUEST FOR CONDITIONAL REZONING APPROVAL
TO BUILD A TIER III WIRELESS SERVICE FACILITY
LOCATED AT
175 FALMOUTH ROAD, FALMOUTH, ME

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EXHIBIT 1

FALMOUTH PLANNING BOARD REQUEST FOR HEARING

IN ADDITION TO THE SPECIFIED REVIEW FEES, APPLICATIONS SHALL BE ACCOMPANIED BY A SEVENTY-FIVE (\$75.00) DOLLAR FEE TO COVER THE COST OF NOTIFICATIONS AND PUBLISHING.

Name of Applicant: Verizon Wireless c/o Kelly Baetz Phone# (207) 253-4472

Fax: (207) 774-7499 E-Mail: kbaetz@verrilldana.com Alt. Phone # _____

Full Address: Verrill Dana, LLP, PO Box 586, Portland, ME 04112-0586

Address of Property to be Developed: (if different) 175 Falmouth Rd., Falmouth, ME 04105

Map: R04 Lot: 022 Zone: Residential B

Property Owner (if other): Amsterdam Property Corp.

Full Address: 160 Falmouth Rd., Falmouth, ME 04105 Phone: _____

The undersigned requests that the Falmouth Planning Board consider the following application for:

- | | |
|---|--|
| <input type="checkbox"/> Pre-application Sketch Plan Review | <input type="checkbox"/> Major Subdivision |
| <input type="checkbox"/> Minor Subdivision | <input type="checkbox"/> Site Plan Review |
| <input type="checkbox"/> Private Way | <input type="checkbox"/> Shoreland Zone Permit |
| <input type="checkbox"/> Sign Permit | <input type="checkbox"/> Fill Permit |

Other (specify) Request for Conditional Rezoning to build a Tier III wireless Service Facility.

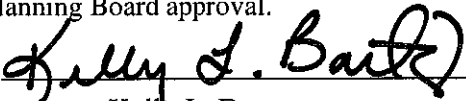
Notes to the Applicant:

1. A short description of the project must be attached to this form.
This application must be filed at the Town Hall no later than twenty-eight (28) days prior to the regular meeting of the Board (1st Tuesday monthly). Applications shall be accompanied by all application fees and materials required by the applicable ordinance(s), checklists and fee schedule.
2. All applications shall include all materials and copies as specified on the submittal requirements form.
3. All materials in color shall be copied in color.

Application Authorization

I hereby make application to the Town of Falmouth for the above-referenced property(ies) and the development as described. To the best of my knowledge the information provided herein is accurate and is in accordance with the Zoning and Subdivision Ordinances of the Town, except where waivers are requested. The Town of Falmouth Planning Board and/or town employees are authorized to enter the property(ies) for purposes of reviewing this proposal and for inspecting improvements as a result of an approval of this proposal. I understand that I am responsible for appearing, or having someone appear on my behalf, at all meetings before the Planning Board.

Unless the applicant has submitted notice to the Community Development Department as part of the initial and any subsequent submittals, no alteration of site conditions, including the existing landscape, structures and buildings, shall occur between the date of application submittal and the date the application has received final sign off from staff after Planning Board approval.

Signed: 
Printed name: Kelly L. Baetz

Date: 6/30/16

Please identify yourself (check one): Agent* Property Owner

*(If you are an agent, written authorization from the property owner must be attached to this form.)



July 14, 2014

Town of Falmouth
271 Falmouth, Road
Falmouth, ME 04105

Dear Sir/Madam,

On behalf of Portland Cellular Partnership d/b/a Verizon Wireless, I hereby authorize Kelly Boden to act as the authorized agent for Verizon Wireless with respect to any local permit applications or Town Council authorizations required in connection with proposed wireless installations in the Town of Falmouth, Maine.

Please do not hesitate to contact me with any questions.

A handwritten signature in black ink, appearing to be "E. Dalmus", written over a horizontal line.

Ellen Dalmus
Real Estate Manager
New England Network

Verizon Wireless
400 Friberg Parkway
Westborough, MA 01581
508-330-3331

EXHIBIT 2

REQUEST FOR CONDITIONAL REZONING

TIER III WIRELESS SERVICE FACILITY
175 FALMOUTH ROAD, FALMOUTH, ME

Pursuant to Section 8-351(c) of the Personal Wireless Service Facilities Siting Ordinance and Section 19-17 of the Zoning and Site Plan Review Ordinance, Verizon Wireless respectfully requests conditional rezoning of Map R04 Lot 22 to permit construction of a Tier III personal wireless service facility.

EXHIBIT 3

PROJECT NARRATIVE

REQUEST FOR CONDITIONAL REZONING APPROVAL TO BUILD A TIER III WIRELESS SERVICE FACILITY LOCATED AT 175 FALMOUTH ROAD, FALMOUTH, ME

In order to meet the radio frequency coverage objectives in the Town of Falmouth, Verizon Wireless submits this proposal for Conditional Rezoning to construct a new wireless telecommunications facility at 175 Falmouth Road, Falmouth, Maine (the “Facility”).

This Facility consists of two primary structures: (1) a 110-foot tall monopole and (2) associated equipment installed at base of the monopole. As shown on the Site Plan attached at **Exhibit 7**, the tower and equipment will be installed inside a 75' x 75' fenced enclosure, along with a back up generator. Each of these elements are described briefly below.

Tower. The tower is designed as a monopole structure and will be 110 feet in height. The tower will not be lit, and it will be painted a flat gray color. If desired by the Town, the tower may instead be designed as a monopine.

Antennas. The antenna panels will be mounted at the 106 foot centerline position on the monopole and the antennas will not reach above the height of the tower.

Equipment Cabinets. The proposed equipment cabinets will be installed on a 12 x 16 foot concrete pad adjacent to the monopole, and will house the Facility’s power and transmission equipment. As the equipment cabinets are unmanned and not designed for occupancy, there will be no need for potable water, sewer or waste disposal services.

Generator. A back-up generator will be located adjacent to the equipment cabinets. The generator will run only after a sustained power outage (approximately 6 hours) as there is battery back-up power on site. The generator will run a weekly “test” for 20-30 minutes.

The Wireless Facility will produce minimal noise from a small fan to cool the power equipment in the equipment cabinets, and would be similar to the sounds made by a small residential room air conditioner. Given the significant distance to the nearest property line there will be no sound impacts on any abutting properties. The only lighting associated with the Facility will be motion-sensor lights near the equipment, and these lights will not be visible from any abutting properties. The Facility will not produce any other noise, or any dirt, dust, glare, odor, fumes, smoke, gas, sewage, refuse, vibration or danger of explosion or fire and will therefore not be detrimental or offensive to the neighborhood; nor will the Facility pose any hazard to health or safety.

Once installed, the Facility will be unmanned. Thus, other than periodic inspections and maintenance, the Applicant anticipates that the Facility will generate no vehicular or pedestrian traffic. The Applicant currently estimates that routine maintenance inspections will be conducted not more frequently than once or twice a month.

As originally proposed, the Tier III Personal Wireless Facility will comply in all respects with all federal, state and local regulations concerning radio frequency emissions.

EXHIBIT 4

SUBMISSION REQUIREMENTS

REQUEST FOR CONDITIONAL REZONING APPROVAL TO BUILD A TIER III WIRELESS SERVICE FACILITY LOCATED AT

175 FALMOUTH ROAD, FALMOUTH, ME

(pursuant to Article II-8-10, Section 8-351 of the Wireless Ordinance)

Sec.8-353(1)(a) A completed application form, signed by (i) the parcel owner, the owner's agent(with proof of the agency) or a person with a contract to purchase or lease the parcel and (ii) the proposed facility's owner. If the contract purchaser or lessee signs the application, they shall also submit the parcel owner's written consent to the application.

RESPONSE. The Town of Falmouth has not yet developed an application form for Personal Wireless Service Facilities; therefore, as suggested by the Town Staff, applicant has included the Planning Board Request for hearing Form attached as Exhibit 1. See also, Memorandum of Lease attached hereto as Exhibit 6.

Sec.8-353(1)(b) A boundary survey by a Maine registered surveyor of the parcel on which the facility will be located. In cases where the facility will be on leased land, references in this article to "parcel" and to "lot" shall mean the underlying fee ownership tract and not the boundaries of the leased land.

RESPONSE. Please see sheet C-1A of the site plan for the boundary survey.

Sec.8-353(1)(c) Whenever the applications is signed by other than a natural person, the complete legal name of the entity, a description of the type of entity, and written documentation that the person signing on behalf of the entity is authorized to do so shall accompany the application.

RESPONSE. Applicant: Verizon Wireless, 118 Flanders Road, Westborough, MA 01581; Verrill Dana, LLP, Kelly B. Baetz, Esq. and Scott Anderson, Esq., Duly Authorized Agents of Verizon Wireless, One Portland Square, PO Box 586, Portland, ME 04112-0586, (207) 774-4000, sanderson@verrilldana.com.

Sec.8-353(1)(d) Except where the facility will be located entirely within an existing structure, a scaled plan and a scaled elevation view and other supporting

drawings, calculations and documentation as may be required by the planning board, signed and sealed by an appropriate professional licensed or registered in the State of Maine.

RESPONSE. Please see the signed and sealed site plan attached hereto at Exhibit 7.

Sec.8-353(1)(d)(i) The location and dimensions of all existing and proposed improvements on the parcel including access roads and structures, the location and dimensions of significant natural features and the maximum height of the facility, measured both as height above existing grade and height above sea level.

RESPONSE. Please see sheets C-1 thru A-4 of the site plan for the location and dimensions of all existing and proposed improvements on the parcel. The proposed tower height is 110' high.

Sec.8-353(1)(d)(ii) The benchmarks and datum used for elevations: The datum shall coincide with NAD83 or the most current version.

RESPONSE. Please see the site plan attached hereto at Exhibit 7.

Sec.8-353(1)(d)(iii) The design of the facility, including the specific type of support structure and the design, type, location, size, height, elevation and configuration of all existing and proposed antennas and other equipment.

RESPONSE. Please see sheet A-1 of the site plan.

Sec.8-353(1)(d)(iv) Identification of each paint color on the facility, by manufacturer color name and color number. A paint chip or sample shall be provided for each color.

RESPONSE. The proposed Tower and equipment cabinets will be painted light grey.

Sec.8-353(1)(d)(v) The topography within a one mile radius of the proposed facility, in contour intervals not to exceed twenty (20) feet for all lands within Falmouth, and in contour intervals shown on the US Geological Survey topographic survey maps or the best topographic data available for lands not within Falmouth (This submission is not required if the facility will be attached to an existing structure).

RESPONSE. Topographical information associated with the vicinity of the Facility is shown on sheets C-2 thru C-7 and A-1 of the Site Plan. Verizon Wireless respectfully requests a waiver from the requirement to provide topographical information as far as one mile

from the proposed construction as such information is not necessary to evaluate compliance with applicable standards.

Sec. 8-353(1)(d)(vi) The height, crown elevation, caliper, and species of all trees greater than ten (10) inches diameter at breast height where the drip line is located within seventy-five (75) feet of the facility that are relied upon to establish the proposed height and/or screening of the monopole. All trees that will be adversely impacted or removed during installation or maintenance of the facility shall be noted regardless of their distance to the facility. (This submission is not required if the facility will be attached to an existing structure.)

RESPONSE. As shown on sheet C-3 of the Site Plan, the species and diameter of the trees within the lease area and access road that may be removed during installation of the facility are noted.

Sec.8-353(1)(d)(vii) All existing and proposed setbacks from lot lines and lease area perimeter lines, parking, fencing and landscaping.

RESPONSE. Please see sheets C-1 thru C-4 and A-1 of the site plan for lot lines, lease area perimeter lines, parking, fencing and landscaping.

Sec.8-353(1)(d)(viii) The location of all existing access ways and location and design of all proposed access way.

RESPONSE. Please see sheets C-1 thru C-7 of the site plan for proposed access way.

Sec.8-353-(1)(d)(ix) Residential and commercial structures on site and within two hundred (200) feet of the facility, and residential and zoning district boundaries. (This submission is not required if the facility will be attached to an existing structure.)

RESPONSE. Please see page C-1 of the site plan.

Sec.8-353(1)(e) Photographs, where possible, or perspective drawings of the facility, all existing facilities within two hundred (200) feet of the site, if any, and the area surrounding the site.

RESPONSE. Please see representative photos of the equipment cabinets at Exhibit 10. A balloon test and photo simulations of the proposed Tower will be conducted the weekend of September 24th and 25th and a visual impact report will be provided to the Town following the test.

Sec.8-353(1)(f)

Balloon Test.

RESPONSE. A balloon test will be conducted the weekend of September 24th and 25th and a visual impact report will be provided to the Town following the test.

Sec.8-353(1)(g)

If antennas are proposed to be added to an existing structure, all existing antennas and other equipment on the structure, as well as all ground equipment, shall be identified by owner, type and size. The method(s) by which the antennas shall be attached to the mounting structure shall be depicted.

RESPONSE. Although the proposed antennas will not be added to an existing structure, please see sheet A-1 of the site plan for details on the antenna size and mounting details.

Sec.8-353(1)(h)

A scaled map (1 inch equal to or less than two thousand (2,000) feet) showing the location along publicly used roads illustrating where the tower will be visible based on the results of the balloon test. The map shall be keyed to clearly identify areas where the tower is or will be visible during leaf-on and leaf-off conditions.

RESPONSE. As noted above, the results of the balloon test will be provided to the Town after the test is conducted on September 24th/25th.

EXHIBIT 5

APPLICABLE STANDARDS

REQUEST FOR CONDITIONAL REZONING APPROVAL
TO BUILD A TIER III WIRELESS SERVICE FACILITY
LOCATED AT

175 FALMOUTH ROAD, FALMOUTH, ME

(pursuant to Section 19-17 of the Zoning and Site Plan Review Ordinance and Article II-8-10,
Sections 8-351 and 8-353 of the Wireless Ordinance)

Section 19-17 of the Zoning and Site Plan Review Ordinance

Sec. 19-17(1)

All conditional rezoning by the Town Council must be consistent with the Comprehensive Plan and Open Space Plan.

RESPONSE. The Falmouth Comprehensive Plan seeks to balance goals of encouraging orderly growth and development in appropriate areas while preserving certain areas of town. The Comprehensive Plan also seeks to encourage economic development in a reasonable and thoughtful manner. These goals are captured in the three themes of the Comprehensive Plan's vision for Falmouth: (1) commercial hubs and economic development; (2) conservation, protection, and connectivity; and (3) diverse residential opportunities.

Residents and businesses are increasingly becoming dependent on wireless telecommunication for both voice and data transmissions. Adequate service coverage is important in all areas, including residential, business, and transportation corridors. Increasingly residents and small businesses are relying solely on wireless phones for communication. As such, a strong wireless network is critical to support residents and visitors to Falmouth in residential and commercial areas.

The proposed Facility will meet these goals by improving wireless service in Falmouth with a project that is designed to minimize visual and other impacts on the community. The proposed Facility will be sited on a very small portion (within a 100' by 100' leased area) of a significant tract of land 82.89 acres. The location on the lot has been chosen to maximize improvement in cell coverage while minimizing impacts on any abutting properties.

Sec. 19-17(2)

All conditional rezoning by the Town Council must establish rezoned areas which are consistent with the existing and permitted uses within the original zones.

RESPONSE. The Facility will be located within the Farm and Forest District, which expressly permits Tier III Wireless Service Facilities. The proposed use will likely have less of an impact (due to traffic, noise, and other impacts) than numerous other permitted uses in the Farm and Forest district, including Extractive Industries, Health Institutions, Veterinary Clinics, Roadside Stands, Museums, Libraries, or Kennels.

Sec. 19-17(3)

All conditional rezoning by the Town Council must only include restrictions which relate to the physical development or operation of the property.

RESPONSE. Verizon Wireless seeks conditional rezoning sufficient only for the construction of the proposed Facility. Verizon Wireless is willing to discuss any conditions that the Town Council determines are necessary as part of the conditional rezoning.

Section 8-351 of the Wireless Ordinance

Sec.8-351(c)(a) Except for the height limitations on Tier I and Tier II facilities, the provisions of this Art. II-8-10 have been met.

RESPONSE. Please see the responses below regarding compliance with the applicable provisions of Article II.8.10.

Sec.8-351(c)(b) It is impractical to meet coverage and/or capacity needs of the applicant through one (1) or more Tier I or Tier II facilities

RESPONSE. As discussed in the RF report attached at Exhibit 9, it is not possible to meet the coverage and capacity needs with any combination of Tier I facilities within the vicinity of the proposed Facility as no suitable existing structures exist within the area targeted for the new antennas. Nor is it possible to meet the coverage objectives with a Tier II facilities from any adjacent zoning districts given the distance to the areas that require improved coverage.

Sec.8-351(c)(c) The visual impact of a single facility would be less than the visual impact of the number of Tier I and/or Tier II facilities required to meet such need.

RESPONSE. As will be shown in the visual impact report, the visual impacts from the proposed 110 foot monopole will be minimal. Further, the proposed Facility will be located centrally on a large parcel, and far from any existing development. This will further minimize, if not eliminate, any visual impacts to abutting properties. Multiple Tier II facilities would need to be constructed at a sufficient height to permit signal propagation above and beyond adjacent vegetation, so any Tier II facility would result in some visual impacts. Although it is not possible to secure leasing rights for multiple potential Tier II sites in order to perform a specific visual impact assessment, it is likely that multiple Tier IIs would result in greater visual impacts than the proposed single Tier III facility.

Section 8-353 of the Wireless Ordinance

Sec.8-353(2)(a) Setbacks. The tower or other mounting structure shall be set back from all property lines by a distance of one hundred (100) percent of the total facility height, provided, however, the planning board may authorize a facility to be located closer to any lot line if there are no structures used as dwelling units, places of employment or shelter for animals within the facility's fall zone and if the applicant obtains an easement or other recordable document, acceptable to the town attorney, prohibiting such structures on the portion of the abutting parcel that is within the facility's fall zone (e.g., the setback of an eighty-foot tall facility could be reduced to thirty (30) feet if an easement is established prohibiting development on the abutting lot within a fifty-foot fall zone). If the right-of-way for a public street is within the fall zone, the town public works department and/or the Maine Department of Transportation shall be included in the staff review in lieu of recording an easement or other document for the right-of-way. However, the planning board may waive this requirement for facilities which are mounted on or contained within a structure used for another purpose.

RESPONSE. Please see the Site Plan attached at Exhibit 7 for setbacks from all property lines. The proposed tower is set back more than 100% of the facility height from all property lines.

Sec.8-353(3)(a) Personal wireless service facilities shall not be sited or built on land shown to be in the flood way or coastal high hazard area on the flood boundary of flood insurance rate maps of the town.

RESPONSE. The proposed Facility is not located in a flood zone.

Sec.8-353(3)(b)(i) Personal wireless service facilities shall not be sited or built on land which is unsuitable for development in its natural state because of topography, drainage, or subsoil conditions. Specific conditions include but are not limited to: areas having unstable soils subject to slumping, mass movement, or accelerated erosion.

RESPONSE. The proposed Facility is not located on unstable soils. Following issuance of all local permit approvals, Verizon Wireless' contractors will conduct a full evaluation of soil conditions and will design an appropriate foundation system for the proposed tower.

Sec.8-353(3)(b)(ii) Personal wireless service facilities shall not be sited or built on land which is unsuitable for development in its natural state because of topography, drainage, or subsoil conditions. Specific conditions include but are not limited to: areas classified as wetlands by state or federal law.

RESPONSE. The proposed Facility will be located on land suitable for development. The proposed grade is permissible for road construction. No

subsurface wastewater installation is proposed. The tower construction will not impact any wetlands. The only direct impact to a wetland will be a single wetland crossing associated with construction of the access drive. This is a permissible activity with permits to be obtained from Maine DEP.

Sec.8-353(3)(b)(iii) Personal wireless service facilities shall not be sited or built on land which is unsuitable for development in its natural state because of topography, drainage, or subsoil conditions. Specific conditions include but are not limited to: areas characterized by “coastal wetlands” as that term is defined in 38 M.R.S.A. subsection 472(2).

RESPONSE. The proposed Facility is not located in or adjacent to a coastal wetland.

Sec.8-353(3)(b)(iv) Personal wireless service facilities shall not be sited or built on land which is unsuitable for development in its natural state because of topography, drainage, or subsoil conditions. Specific conditions include but are not limited to: land in resource protection districts.

RESPONSE. The proposed Facility is not located on land in a resource protection district.

Sec.8-353(4)(b) The facility shall be designed, constructed and maintained as follows: (i) guy wires shall not be permitted; (ii) outdoor lighting for the facility shall be permitted only during maintenance periods, regardless of the lumens emitted; (iii) any equipment cabinet not located within an existing structure shall be screened from all lot lines either by terrain, existing structures, existing vegetation, or by added vegetation approved by the code enforcements officer with the advice of a landscape architect; (iv) a grounding rod, whose height shall not exceed two (2) feet and whose width shall not exceed one (1) inch in diameter at the base and tapering to a point, may be installed at the top of the facility or the structure; and (v) within one (1) month after the completion of the installation of the facility the applicant shall provide a statement to the code enforcement officer certifying that the height of all components of the facility complies with this regulation.

RESPONSE. The proposed tower does not require guy wires and the tower will not be lit. Given its location within the lot, the equipment cabinets will be screened from view by existing topography and vegetation. Any grounding rod will comply with this provision and Verizon Wireless will provide a statement to the code enforcement officer in compliance with this requirement.

Sec.8-353(4)(c) Equipment shall be attached to the exterior of a structure only as follows: (i) the total number of arrays of antennas attached to the existing structure shall not exceed three (3), and each antenna proposed to be attached shall not exceed the size shown on the application, which size shall not exceed one thousand one

hundred fifty-two (1,152) square inches; (ii) no antenna shall project from the structure beyond the minimum required by the mounting equipment, and in no case shall any point on the face of an antenna project more than twelve (12) inches from the existing structure; and (iii) each antenna and associated equipment shall be a color that matches the existing structure. For purposes of this section, all types of antennas and dishes regardless of their use shall be counted toward the limit of three arrays.

RESPONSE. Please see the Site Plan attached at Exhibit 7 for information regarding compliance with these provisions.

Sec.8-353(4)(d) Any fence needed for the facility shall blend with its surroundings and shall fence in the minimum area necessary to protect equipment and to protect the owner from liability.

RESPONSE. The proposed fenced area is the minimum area necessary to house and protect the equipment. The fence will not be visible from any abutting properties.

Sec.8-353(5)(b) The site shall provide adequate opportunities for screening and the facility shall be sited to minimize its visibility from adjacent parcels and streets, regardless of their distance from the facility. If the facility would be visible from a river, bay or lake, regardless of whether the site is adjacent thereto, the facility also shall be sited to minimize its visibility from such river, bay or lake. If the facility would be located on lands subject to a conservation easement or an open space easement, the facility shall be sited so that it is not visible from any natural feature specifically identified for protection in the deed of easement.

RESPONSE. The Facility will not be visible from any river, bay or lake, and it has been designed at the lowest possible height to minimize visual impacts. The Facility will not be located on lands subject to a conservation easement or other easement. The site may also be constructed as a “monopine” as will be shown on the simulations if such design is elected by the Council or the Board to minimize visual impacts.

Sec.8-353(5)(c) The facility shall not have an unreasonable adverse visual impact on resources identified in the town’s open space plan.

RESPONSE. The proposed facility is not visible from any identified resource in the town’s open space plan.

Sec.8-353(5)(d) A facility may not be located so that it and three (3) or more existing or approved personal wireless service facilities would be within an areas comprised of a circle centered anywhere on the ground having a radius of two hundred (200) feet.

RESPONSE. No existing or approved personal wireless facility is located within two hundred (200) feet of the proposed Facility.

Sec.8-353(5)(g) Each monopole shall be a color that will blend into the surrounding trees. The antennas, supporting brackets, and all other equipment attached to the monopole shall be a color that closely matches that of the monopole. The ground equipment, the ground equipment cabinet, and the concrete pad shall also be a color that closely matches that of the monopole, provided that the ground equipment and the concrete pad need not be of such a color if they are enclosed within or behind an approved structure, façade or fencing that (i) is a color that closely matches that of the monopole, (ii) is consistent with the character of the area, and (iii) makes the ground equipment and concrete pad invisible at any time of the year from any other parcel or public or private street.

RESPONSE. At Exhibit 10 we have attached representative photos of the equipment cabinets and fencing that has been designed to be consistent with the character of the area. The base of the tower will not be visible from adjacent areas due to location within the large parcel of land.

Sec.8-353(6)(b) In no event shall a Tier III facility exceed two hundred (200) feet above grade level.

RESPONSE. The proposed monopole is 110 feet above grade level.

Sec.8-353(6)(c) Tier III facilities that are not subject to special painting or lighting standards of any federal agency shall meet as far as is practical the visual standards for Tier II facilities and at a minimum shall have a galvanized finish or be painted in a sky tone above the top of surrounding trees and shall be painted in an earth tone below treetop level or should be camouflaged by a “stealth” treatment.

RESPONSE. The Facility may be constructed as a stealth monopine if such design is elected by the Town.

Sec.8-353(6)(d)(i) Unless existing vegetation provides a buffer strip the width of the required fall zone, calculated as the equivalent of the facility’s height, the planning board shall require that all property lines along roadways or visible to existing abutting or nearby buildings (within one-fourth (1/4) mile radius) be landscaped as follows: with six (6) to eight (8) foot evergreen shrubs planted in an alternate pattern, five (5) feet on center and within fifteen (15) feet of the site boundary.

RESPONSE. Given the significant setbacks from abutting properties, existing vegetation will provide complete buffering between the Facility and all property lines and roadways. In the event the Town determines that insufficient buffering exists, Verizon Wireless can add additional vegetation in specific areas.

Sec.8-353(6)(d)(ii) Unless existing vegetation provides a buffer strip the width of the required fall zone, calculated as the equivalent of the facility's height, the planning board shall require that all property lines along roadways or visible to existing abutting or nearby buildings (within one-fourth (1/4) mile radius) be landscaped as follows: with at least one (1) row of deciduous trees, not less than two and one-half (2 1/2) inch to three (3) inch caliper measured three (3) feet above grade, and spaced not more than twenty (20) feet apart and within twenty-five (25) feet of the site boundary.

RESPONSE. Verizon Wireless will comply with this provision if it is determined that an insufficient buffer strip exists.

Sec.8-353(6)(d)(iii) Unless existing vegetation provides a buffer strip the width of the required fall zone, calculated as the equivalent of the facility's height, the planning board shall require that all property lines along roadways or visible to existing abutting or nearby buildings (within one-fourth (1/4) mile radius) be landscaped as follows: with at least one (1) row of evergreen trees at least four (4) to five (5) feet in height when planted, and spaced not more than fifteen (15) feet apart within forty (40) feet of the site boundary.

RESPONSE. Verizon Wireless will comply with this provision if it is determined that an insufficient buffer strip exists.

Sec.8-353(6)(d)(iv) In lieu of the foregoing, the planning board may determine that the existing vegetation must be supplemented to meet an equivalent means of achieving the desired goal of minimizing the visual impact. To assist in making that determination, the planning board may require the applicant to provide a visual impact analysis by a qualified professional.

RESPONSE. Verizon Wireless will comply with this provision if it is determined that an insufficient buffer strip exists.

EXHIBIT 6

MEMORANDUM OF LEASE

THIS MEMORANDUM OF LEASE is made this 14th day of May, 2014, with respect to the following described Lease Agreement ("Lease").

DATE OF LEASE: May 14, 2014

NAME OF LESSOR: **AMSTERDAM PROPERTY CORP.**, a Maine corporation with an address of 1321 Washington Avenue, Portland, Maine 04103.

NAME OF LESSEE: **PORTLAND CELLULAR PARTNERSHIP**, a Maine general partnership, d/b/a **VERIZON WIRELESS**, 180 Washington Valley Road, Bedminster, New Jersey 07921, Attn: Network Real Estate.

DESCRIPTION OF LEASED PREMISES:

The Premises consists of a 100 foot by 100 foot square parcel of land situated on the property owned by LESSOR off Falmouth Road, in Falmouth, Cumberland County, Maine, which property is identified as Lot 22 on Tax Map R04 of the Town of Falmouth and further described in Deed Book 21736 at Page 88 as recorded in the Cumberland County Registry of Deeds (the "Property").

Together with the non exclusive right (the "Rights of Way") for ingress and egress, seven (7) days a week twenty four (24) hours a day, on foot or motor vehicle, including trucks over or along a twenty (20) foot wide right of way extending from the nearest public right of way, Falmouth Road, to the Land Space, and for the installation and maintenance of utility wires, poles, cables, conduits, and pipes over, under, or along one or more rights of way from the Land Space.

The approximate location of the Premises is shown on Exhibit L-1 attached hereto.

TERM: The initial term of the Lease is five (5) years, commencing on the Commencement Date. The Commencement Date shall be the first (1st) day of the month following (i) the date LESSEE is granted a building permit by the governmental agency charged with issuing such permits, or (ii) the date of execution of the Agreement by the Parties, whichever is later.

RENEWAL TERMS: Four (4) additional five (5) year terms.

RIGHT OF FIRST REFUSAL:


If LESSOR elects, during the term of the Lease, (i) to sell or otherwise transfer all or any portion of the Property, whether separately or as part of a larger parcel of which the Property is a part, for the purpose of operating and maintaining communications facilities or the management thereof, or (ii) to grant to a third party by easement or other legal instrument an interest in and to that portion of the Property occupied by LESSEE, or a larger portion thereof, for the purpose of operating and maintaining communications facilities or the management thereof, LESSEE shall have the right of first refusal with respect thereto as more fully set forth in the Lease.

LESSEE'S EQUIPMENT: LESSEE's equipment and all other facilities installed, erected or placed by LESSEE on the Premises in accordance with the provisions of the Lease shall be and remain the personal property of LESSEE notwithstanding the manner of affixation.

THIS MEMORANDUM OF LEASE is prepared for recording and for the purpose of making a public record of said Lease, and it is intended that the parties shall be subject to all of the provisions of the Lease and that nothing herein shall be construed or deemed to alter or change any of the terms or provision of the Lease.

IN WITNESS WHEREOF, LESSOR has executed this Memorandum of Lease as of the day and year first above mentioned.

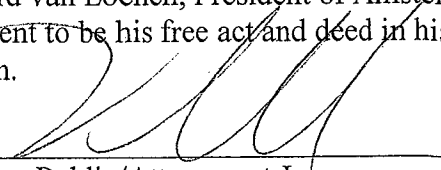
LESSOR: AMSTERDAM PROPERTY CORP.

By: 
Print Name: Eduard van Loenen
Its: President

STATE OF MAINE
COUNTY OF CUMBERLAND

April 23, 2014

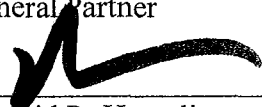
Then personally appeared the above-named Eduard van Loenen, President of Amsterdam Property Corp., and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.


Notary Public/Attorney-at-Law
Print Name: Nicholas J. Morrill
My Commission Expires: _____

IN WITNESS WHEREOF, LESSEE has executed this Memorandum of Lease as of the day and year first above mentioned.

LESSEE : PORTLAND CELLULAR PARTNERSHIP,
d/b/a VERIZON WIRELESS

By: CELLCO PARTNERSHIP
Its General Partner


By: 
David R. Heverling
Area Vice President Network
514M

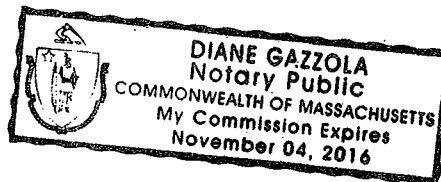
COMMONWEALTH OF MASSACHUSETTS
COUNTY OF WORCESTER

On this 14 day of May, 2014, before me appeared David R. Heverling, to me personally known, who, being by me duly sworn, did say that he is authorized by the Senior Vice President & Chief Technical Officer of Cellco Partnership, a Delaware General Partnership, general partner of Portland Cellular Partnership d/b/a Verizon Wireless, to execute the foregoing instrument and that said instrument was signed on behalf of said partnership and said David R. Heverling acknowledged said instrument to be his free act and deed.

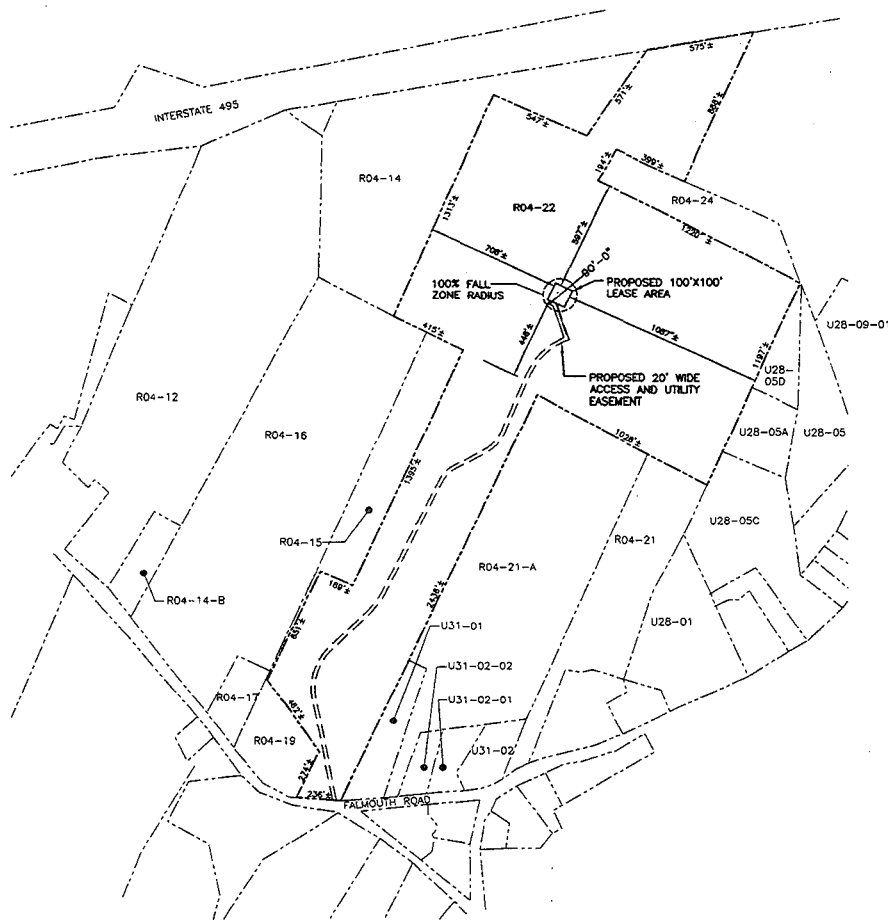
IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at my office in said county and state as of the day and year last above written.

Notary Public

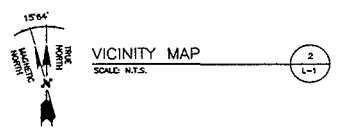
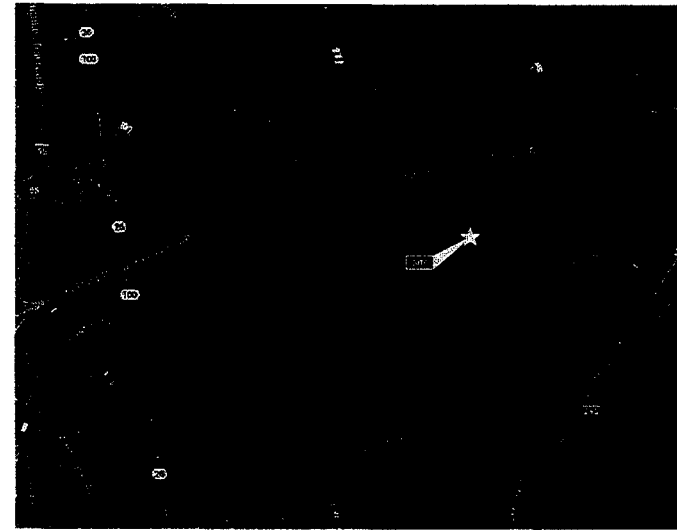
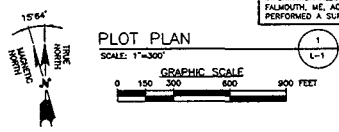

Print Name: Diane Gazzola
My commission expires: _____



LEASE EXHIBIT



NOTE:
 PROPERTY LINE INFORMATION BASED ON SITE ANALYSIS BY ANTHONY MUCIOL, LANDSCAPE ARCHITECT, PROJECT: UPPER RIDGE FALLS, DATED 11/14/13. INFORMATION ALSO RECEIVED FROM THE ASSESSOR'S WEBSITE FOR THE TOWN OF FALMOUTH, ME, ACCEDED ON 04/08/14. HUDSON DESIGN GROUP HAS NOT PERFORMED A SURVEY AT THIS SITE.



NOTE:
 AN ANALYSIS OF THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THE PROPOSED LOADING HAS NOT BEEN COMPLETED BY HUDSON DESIGN GROUP, LLC. DRAWINGS ARE SUBJECT TO CHANGE PENDING OUTCOME OF A STRUCTURAL ANALYSIS.



Hudson Design Group
 INCORPORATED
 175 FALMOUTH RD
 FALMOUTH, ME 04105
 TEL: (207) 553-5333
 FAX: (207) 553-5336

PREPARED BY:

PLOT PLAN AND VICINITY MAP

REV	DATE	DESCRIPTION	BY	CHK	APP'D
0	03/20/14	FOR REVIEW	AS	JZ	JPL
1	04/08/14	FOR REVIEW	AS	JZ	JPL
2	07/27/14	REVISED PER COMMENTS	AS	JZ	JPL

REGISTERED ENGINEER

FALMOUTH 3 ME
 175 FALMOUTH RD
 FALMOUTH, ME 04105

L-1

EXHIBIT 7



TOWN OF FALMOUTH, ME PLANNING BOARD

PREPARED FOR:

400 FRIBERG PARKWAY
WESTBOROUGH, MA 01581
(508) 330-3300 TEL

PREPARED BY:

1600 OSGOOD STREET
BUILDING 20 NORTH, SUITE 3090
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 334-5586

FALMOUTH 3 ME

175 FALMOUTH ROAD FALMOUTH, ME 04105

FOR ZONING



DIRECTIONS TO SITE:

GET ON I-495 N FROM FRIBERG PKWY AND MA-9 E
 HEAD NORTHWEST ON FRIBERG PKWY TOWARD RESEARCH DR
 TURN LEFT ONTO RESEARCH DR
 TURN RIGHT TO MERGE ONTO MA-9 E
 MERGE ONTO I-495 N VIA THE RAMP TO LOWELL
 FOLLOW I-495 N AND I-95 N TO FALMOUTH. TAKE EXIT 53 FROM I-95 N
 MERGE ONTO I-495 N
 TAKE THE EXIT ONTO I-95 N
 PARTIAL TOLL ROAD
 PASSING THROUGH NEW HAMPSHIRE
 ENTERING MAINE
 TAKE EXIT 53 TOWARD MAINE ME 26 W/MAINE ME 100 W/FALMOUTH
 TAKE ME-100 N/ME-26 N AND WINN RD TO FIELD RD
 SLIGHT RIGHT TOWARD ME-100 N/ME-26 N
 TURN LEFT ONTO ME-100 N/ME-26 N
 TURN RIGHT ONTO LEIGHTON RD
 TURN RIGHT ONTO FALMOUTH RD
 175 FALMOUTH RD, FALMOUTH, ME 04105

CONSULTANT TEAM

PROJECT ENGINEER
 HUDSON DESIGN GROUP, LLC
 1600 OSGOOD STREET
 BUILDING 20 NORTH, SUITE 3090
 NORTH ANDOVER, MA 01845
 TEL: 1-(978)-557-5553
 FAX: 1-(978)-336-5586

MEP ENGINEER
 HUDSON DESIGN GROUP, LLC
 1600 OSGOOD STREET
 BUILDING 20 NORTH, SUITE 3090
 NORTH ANDOVER, MA 01845
 TEL: 1-(978)-557-5553
 FAX: 1-(978)-336-5586

SURVEYOR
 NORTHEAST SURVEY CONSULTANTS
 116 PLEASANT ST. SUITE 302
 EASTHAMPTON, MA 01027
 TEL: 1-(413)-203-5144

PROJECT SUMMARY

SITE NAME: FALMOUTH 3 ME

SITE ADDRESS: 175 FALMOUTH ROAD
FALMOUTH, ME 04105

APPLICANT: VERIZON WIRELESS
400 FRIBERG PARKWAY
WESTBOROUGH, MA 01581

ZONING DISTRICT: RB (RESIDENTIAL B)

PARCEL ID: R04-022

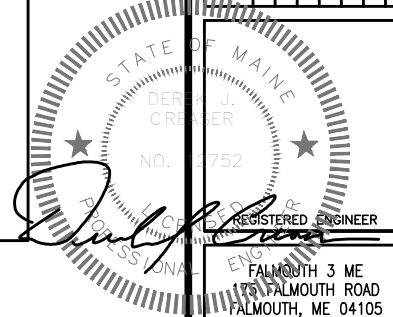
PROPERTY OWNER: AMSTERDAM PROPERTY CORP.
160 FALMOUTH ROAD
FALMOUTH, ME 04105

LATITUDE: N 43° 43' 42.05"

LONGITUDE: W 70° 15' 45.75"

SHEET INDEX

SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
C-1A	BOUNDARY SURVEY PLAN
C-1	ABUTTERS PLAN
C-2	EXISTING CONDITIONS
C-3	EXISTING CONDITIONS
C-4	EXISTING CONDITIONS
C-5	WETLAND PLAN
C-6	SITE PLAN
C-7	PARTIAL SITE PLAN
C-8	PARTIAL SITE PLAN
C-9	PARTIAL SITE PLAN
C-10	VERNAL POOL PLAN
C-11	SITE-SPECIFIC SOIL MAP
C-12	EXISTING DRAINAGE CONDITIONS
C-13	PROPOSED DRAINAGE CONDITIONS
C-14	DRIVEWAY PROFILE
C-15	PARTIAL SITE PLAN
A-1	COMPOUND PLAN AND ELEVATION
A-2	EROSION CONTROL DETAILS & NOTES
A-3	DETAILS
A-4	DETAILS
A-5	DETAILS

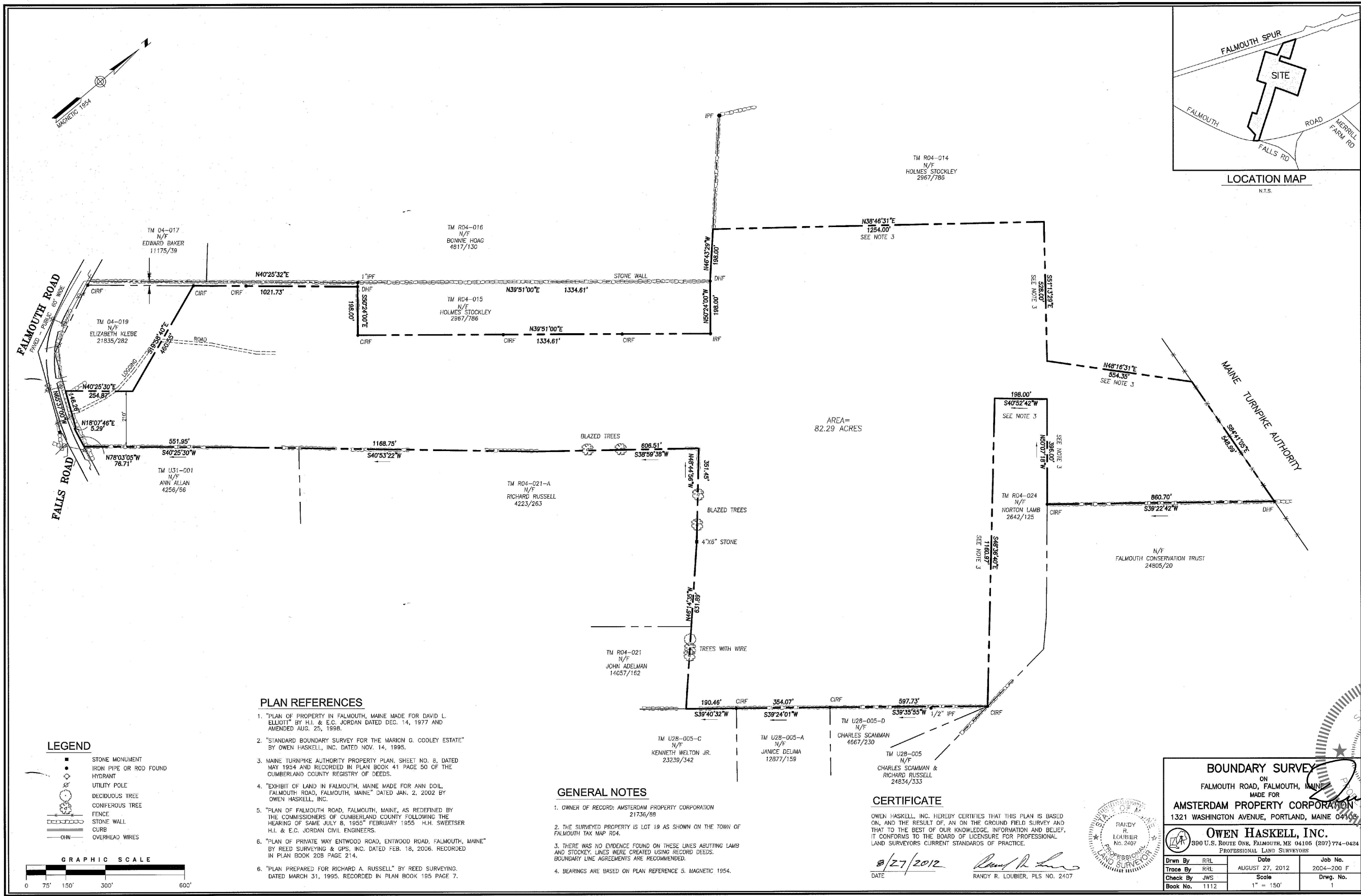


TITLE SHEET

REV	DATE	DESCRIPTION	BY	CHK	APP'D
0	08/19/14	ISSUED FOR REVIEW	GC	JX	DPH
1	08/15/16	OUTDOOR EQUIP. & NEW ROAD DESIGN	HH	JX	DPH
2	08/05/16	ADDED ADDITIONAL WETLAND	HH	JX	DPH
3	08/29/16	CHANGED DRIVEWAY ALIGNMENT	HH	JX	DPH

FALMOUTH 3 ME
175 FALMOUTH ROAD
FALMOUTH, ME 04105

T-1



PREPARED FOR:

verizon wireless
 400 FERBERG PARKWAY
 WESTBOROUGH, MA 01581
 (508) 330-3330 TEL

PREPARED BY:

Hudson Design Group
 1400 OSGOOD STREET
 BUILDING 20 NORTH, SUITE 3090
 N. ANDOVER, MA 01845
 TEL: (978) 557-5553
 FAX: (978) 334-5886

BOUNDARY SURVEY PLAN

REV	DATE	DESCRIPTION	CHK APP'D		
			GC	JX	DPH
0	08/19/14	ISSUED FOR REVIEW			
1	06/15/16	OUTDOOR EQUIP. & NEW ROAD DESIGN	HH	JX	DPH
2	06/05/16	ADDED ADDITIONAL WETLAND	HH	JX	DPH
3	06/29/16	CHANGED DRIVEWAY ALIGNMENT	HH	JX	DPH

STATE OF MAINE
 DEREK CREAGER
 REGISTERED ENGINEER
 FALMOUTH 3 ME
 1321 WASHINGTON AVENUE
 FALMOUTH, ME 04105

USE CURRENT SCALE
 1" = 175'

C-1A

U67-0
N/F
VILLAS AT THE WOODLANDS
HOMEOWNERS ASSOCIATION
511 CONGRESS STREET SUITE
700 PORTLAND, ME 04101

LEGEND

- LOCUS PROPERTY LINE
- - - ABUTTERS PROPERTY LINE ±
- STONEWALL
- △ — CALCULATED POINT
- — IRON ROD/PIPE
- — BOUND
- ⊙ — TOWER CONTROL POINT



GENERAL NOTES

1. FIELD SURVEY DATE: 07-31-2014 & 7-21-2016
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83)
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
4. OWNER: AMSTERDAM PROPERTY CORPORATION
5. SITE NAME: FALMOUTH 3 ME
6. SITE ADDRESS: 175 FALMOUTH ROAD FALMOUTH, ME 04105
7. APPLICANT: VERIZON WIRELESS 400 FRIBERG PARKWAY WESTBOROUGH, MA 01581
8. JURISDICTION: TOWN OF FALMOUTH CUMBERLAND COUNTY
9. TAX ID: R04-022
10. DEED REFERENCE: BOOK 21736 PAGE 88
11. THE HORIZONTAL DATUM AND VERTICAL DATUM WERE DERIVED FROM A DUAL FREQUENCY GPS SURVEY.
12. ALL UNDERGROUND UTILITY INFORMATION PRESENTED HEREON WAS DETERMINED FROM SURFACE EVIDENCE AND PLANS OF RECORD. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO COMMENCEMENT OF ALL SITE WORK. CALL DIGSAFE 1-800-322-4844 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.
13. FIELD SURVEY BY EDM TOTAL STATION.
14. THIS SURVEY IS BASED ON A PLAN DEPICTED ON SHEET C-1A ENTITLED "BOUNDARY SURVEY ON FALMOUTH ROAD, FALMOUTH, MAINE, MADE FOR AMSTERDAM PROPERTY CORPORATION" PREPARED BY OWEN HASKELL, INC. DATED AUGUST 27, 2012.
15. ABUTTING PROPERTY LINES SHOWN HEREON ARE TAKEN FROM THE TOWN OF FALMOUTH'S GIS AND ARE APPROXIMATE ONLY.
16. TOPOGRAPHY AND TREE LOCATIONS WITHIN 75' OF THE PROPOSED TOWER ARE BASED ON FIELD DATA COLLECTED BY THIS OFFICE ON 7-31-2014. ALL OTHER TOPOGRAPHY AND DETAIL SHOWN HEREON IS TAKEN FROM INFORMATION PROVIDED BY PINKHAM & GREER CIVIL ENGINEERS.
17. WETLANDS SERIES' H, VP, I, J, Y, Z AND E16-1 THRU E16-4 WERE FLAGGED BY A & D KLUMB ENVIRONMENTAL, LLC ON 7/6/2016 AND WERE LOCATED IN THE FIELD BY NORTHEAST SURVEY CONSULTANTS ON 7-21-2016. ALL OTHER WETLANDS SHOWN HEREON WERE DELINEATED BY MARK HAMPTON ASSOCIATES AND HORIZONTAL LOCATIONS ARE TAKEN FROM INFORMATION PROVIDED BY PINKHAM & GREER CIVIL ENGINEERS.

FAA 1-A CERTIFICATION

I HEREBY CERTIFY THAT THE LATITUDE, LONGITUDE, AND ELEVATION PRESENTED HEREON MEET THE REQUIREMENTS OF THE FAA WITH THE FOLLOWING ACCURACIES:

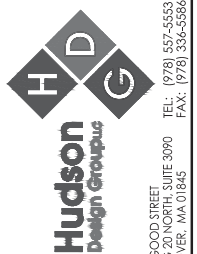
THREE (3) FEET VERTICALLY
TWENTY (20) FEET HORIZONTALLY



Daniel F. Stasz
DANIEL F. STASZ, PLS #2268
DATE: 08-29-2016



PREPARED FOR:



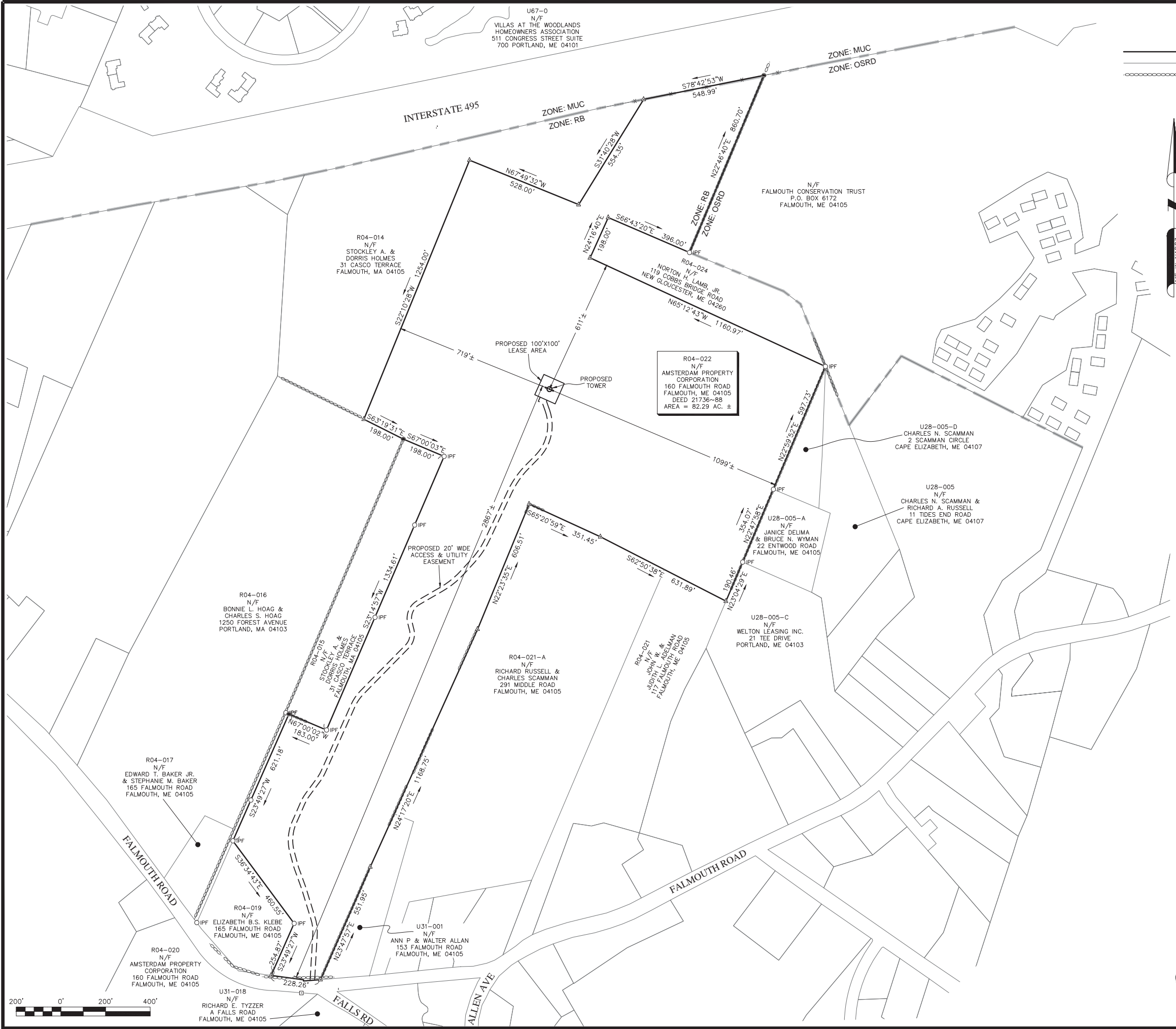
PREPARED BY:

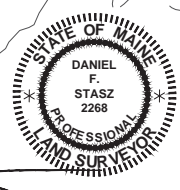
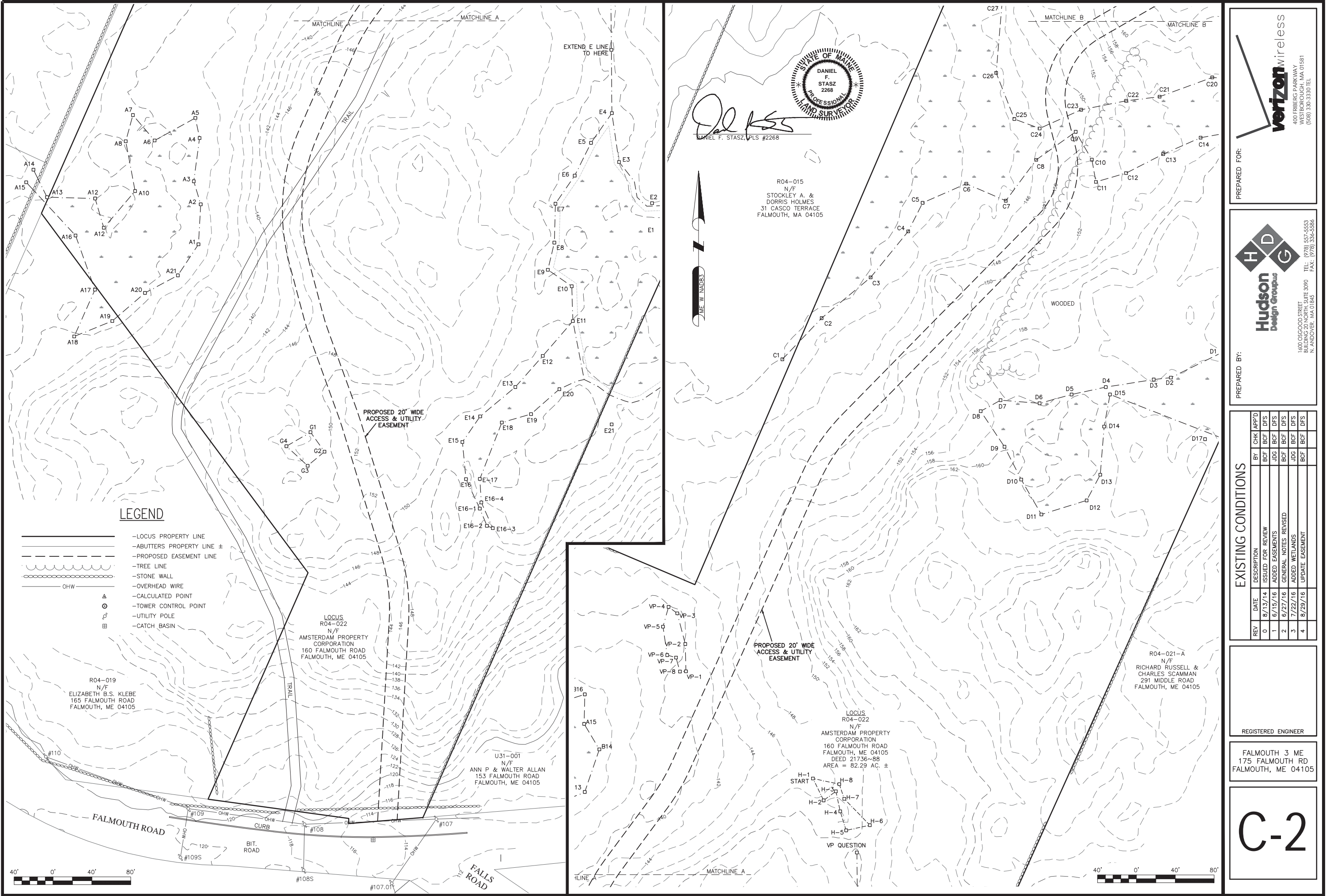
ABUTTERS PLAN		CHK	APP'D
REV	DATE	DESCRIPTION	BY
0	8/13/14	ISSUED FOR REVIEW	BCF BCF DFS
1	6/15/16	ADDED EASEMENTS	JDG BCF DFS
2	6/27/16	GENERAL NOTES REVISED	BCF BCF DFS
3	7/22/16	ADDED WETLANDS	JDG BCF DFS
4	8/29/16	UPDATE EASEMENT	BCF BCF DFS

REGISTERED ENGINEER

FALMOUTH 3 ME
175 FALMOUTH RD
FALMOUTH, ME 04105

C-1





DANIEL F. STASZ, PLS #2268

R04-015
N/F
STOCKLEY A. &
DORRIS HOLMES
31 CASCO TERRACE
FALMOUTH, MA 04105



LEGEND

- LOCUS PROPERTY LINE
- - - BUTTERS PROPERTY LINE ±
- - - PROPOSED EASEMENT LINE
- ~ ~ ~ TREE LINE
- STONE WALL
- OVERHEAD WIRE
- △ CALCULATED POINT
- ⊙ TOWER CONTROL POINT
- ⊙ UTILITY POLE
- ⊠ CATCH BASIN

PROPOSED 20' WIDE
ACCESS & UTILITY
EASEMENT

PROPOSED 20' WIDE
ACCESS & UTILITY
EASEMENT

R04-019
N/F
ELIZABETH B.S. KLEBE
165 FALMOUTH ROAD
FALMOUTH, ME 04105

LOCUS
R04-022
N/F
AMSTERDAM PROPERTY
CORPORATION
160 FALMOUTH ROAD
FALMOUTH, ME 04105

U31-001
N/F
ANN P. & WALTER ALLAN
153 FALMOUTH ROAD
FALMOUTH, ME 04105

LOCUS
R04-022
N/F
AMSTERDAM PROPERTY
CORPORATION
160 FALMOUTH ROAD
FALMOUTH, ME 04105
DEED 21736-88
AREA = 82.29 AC. ±

R04-021-A
N/F
RICHARD RUSSELL &
CHARLES SCAMMAN
291 MIDDLE ROAD
FALMOUTH, ME 04105



PREPARED FOR:



1600 OSGOOD STREET
BUILDING 20 NORTH SUITE 3090
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5886

PREPARED BY:

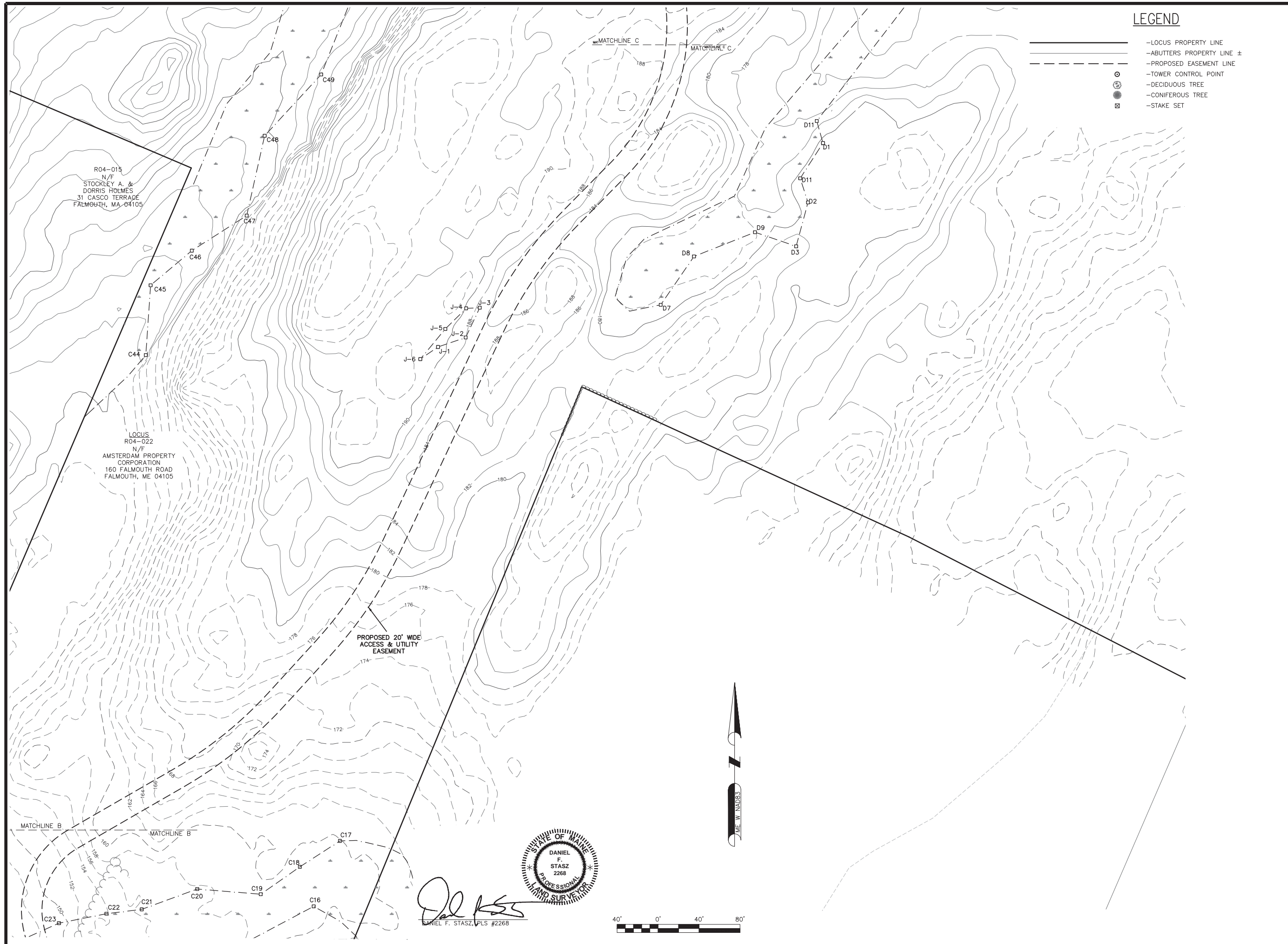
REV	DATE	DESCRIPTION	BY	CHK APP'D
0	8/13/14	ISSUED FOR REVIEW	BCF	DFS
1	6/15/16	ADDED EASEMENTS	JDG	BCF
2	6/27/16	GENERAL NOTES REVISED	BCF	DFS
3	7/22/16	ADDED WETLANDS	JDG	BCF
4	8/29/16	UPDATE EASEMENT	BCF	DFS

REGISTERED ENGINEER

FALMOUTH 3 ME
175 FALMOUTH RD
FALMOUTH, ME 04105

C-2





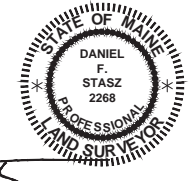
LEGEND

- LOCUS PROPERTY LINE
- - - ABUTTERS PROPERTY LINE ±
- - - PROPOSED EASEMENT LINE
- TOWER CONTROL POINT
- DECIDUOUS TREE
- CONIFEROUS TREE
- ⊠ STAKE SET

R04-015
N/F
STOCKLEY A. &
DORRIS HOLMES
31 CASCO TERRACE
FALMOUTH, MA 04105

LOCUS
R04-022
N/F
AMSTERDAM PROPERTY
CORPORATION
160 FALMOUTH ROAD
FALMOUTH, ME 04105

PROPOSED 20' WIDE
ACCESS & UTILITY
EASEMENT



Daniel F. Stasz
DANIEL F. STASZ, PLS #2268



PREPARED FOR:

400 FIBERDC PARKWAY
WESTBOROUGH, MA 01581
(508) 330-3330 TEL

PREPARED BY:

1600 OSGOOD STREET
BUILDING 20 NORTH SUITE 3090
N. ANDOVER, MA 01845
TEL: (978) 557-5553
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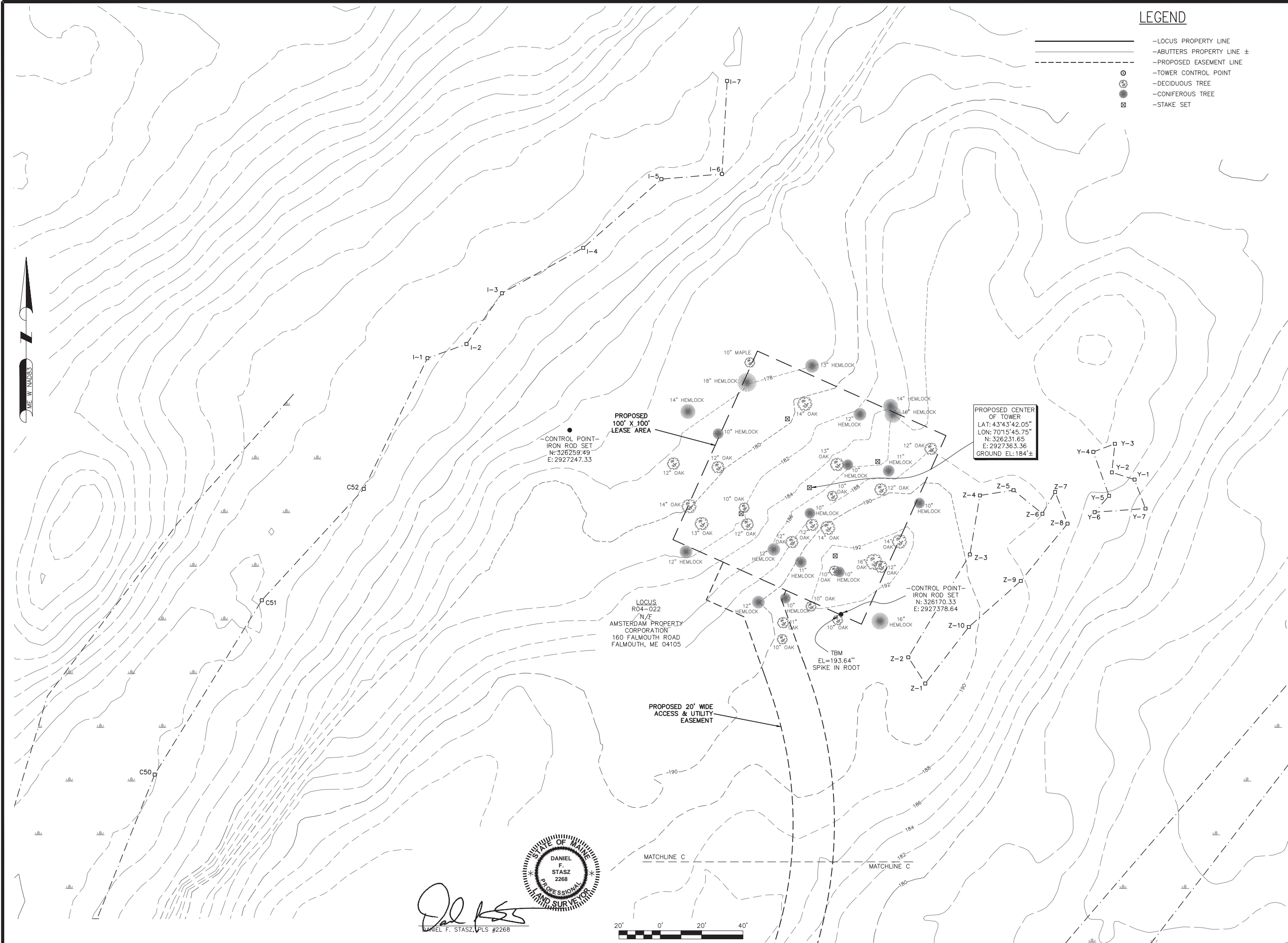
EXISTING CONDITIONS

REV	DATE	DESCRIPTION	BY	CHK APP'D
0	8/13/14	ISSUED FOR REVIEW	BCF	BCF DFS
1	6/15/16	ADDED EASEMENTS	JDG	BCF DFS
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REGISTERED ENGINEER

FALMOUTH 3 ME
175 FALMOUTH RD
FALMOUTH, ME 04105

C-3



LEGEND

- LOCUS PROPERTY LINE
- - - ABUTTERS PROPERTY LINE ±
- - - PROPOSED EASEMENT LINE
- ⊙ TOWER CONTROL POINT
- DECIDUOUS TREE
- ⊠ CONIFEROUS TREE
- ⊡ STAKE SET

PREPARED FOR:

400 FERRIS PARKWAY
WESTBOROUGH, MA 01581
(508) 330-3330 TEL

PREPARED BY:

1600 OSGOOD STREET
BUILDING 20 NORTH, SUITE 3090
N. ANDOVER, MA 01845
TEL: (978) 557-5553
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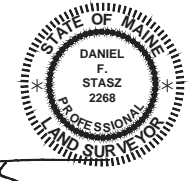
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4	8/29/16	UPDATE EASEMENT	BCF	BCF DFS

REGISTERED ENGINEER

FALMOUTH 3 ME
175 FALMOUTH RD
FALMOUTH, ME 04105

C-4



Daniel F. Stasz
DANIEL F. STASZ, PLS #2268

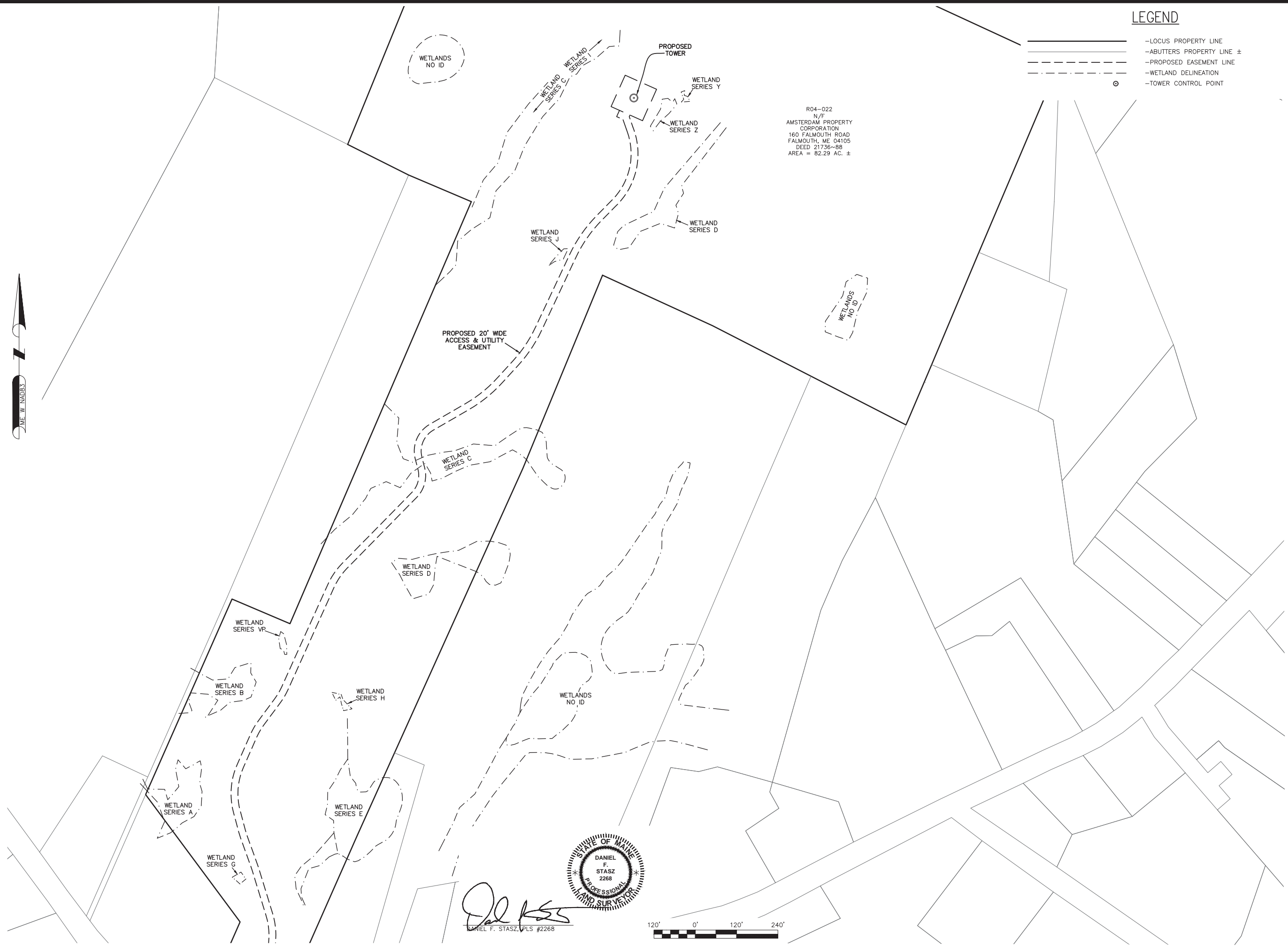




LEGEND

- LOCUS PROPERTY LINE
- - - ABUTTERS PROPERTY LINE ±
- - - PROPOSED EASEMENT LINE
- - - WETLAND DELINEATION
- TOWER CONTROL POINT

R04-022
N/F
AMSTERDAM PROPERTY CORPORATION
160 FALMOUTH ROAD
FALMOUTH, ME 04105
DEED 21736-88
AREA = 82.29 AC. ±



PREPARED FOR:

400 FERRIS PARKWAY
WESTBOROUGH, MA 01581
(508) 330-3330 TEL

PREPARED BY:

1600 OSGOOD STREET
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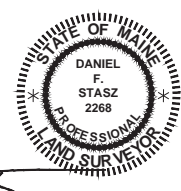
WETLANDS PLAN

REV	DATE	DESCRIPTION	BY	CHK	APP'D
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2	6/27/16	GENERAL NOTES REVISED	BCF	BCF	DFS
3	7/22/16	ADDED WETLANDS	JDG	BCF	DFS
4	8/29/16	UPDATE EASEMENT	BCF	BCF	DFS

REGISTERED ENGINEER

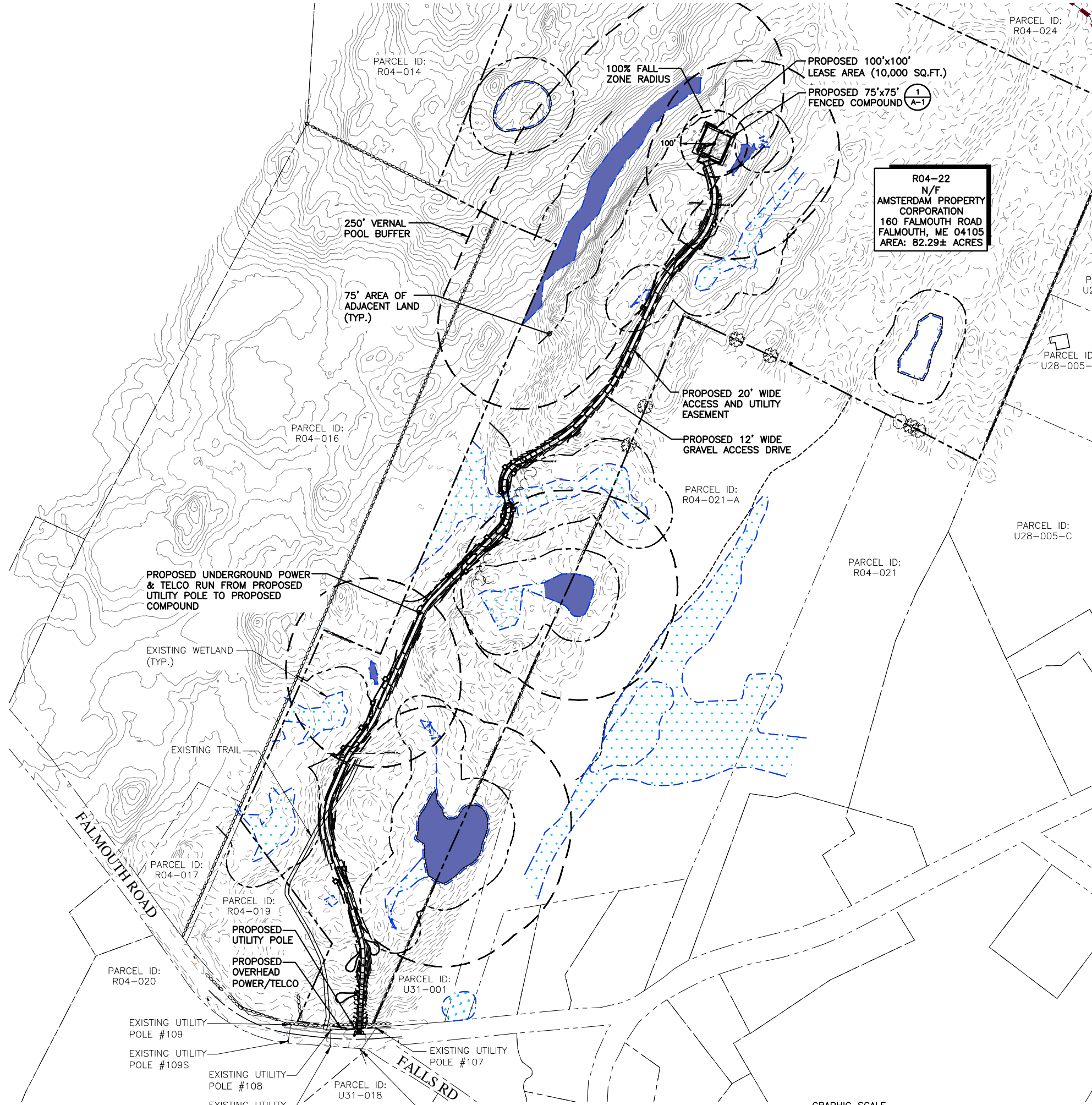
FALMOUTH 3 ME
175 FALMOUTH RD
FALMOUTH, ME 04105

C-5



Daniel F. Stasz
DANIEL F. STASZ, PLS #2268





TOWN OF FALMOUTH, ME
PLANNING BOARD

R04-22
N/F
AMSTERDAM PROPERTY CORPORATION
160 FALMOUTH ROAD
FALMOUTH, ME 04105
AREA: 82.29± ACRES

FOR ZONING

APPROXIMATE TOWER COORDINATES: LAT: N 43° 43' 42.05" LONG: W 70° 15' 45.75"

LEGEND

---	PROPERTY LINE - SUBJECT PARCEL
---	ABUTTING PROPERTY LINE
OHW	OVERHEAD UTILITY LINE
~~~~~	EXISTING TREE LINE
- - - - -	PROPOSED EASEMENT LINE
=====	STONE WALL
---	WETLAND LINE

**SOURCE**

- NORTHEAST SURVEY CONSULTANTS  
DATED: 07/22/16 (REV 3)  
TITLED: ABUTTERS PLAN/EXISTING CONDITIONS
- WETLANDS SERIES' H, VP, I, J, Y, Z AND E16-1 THRU E16-4 WERE FLAGGED BY A & D KLUMB ENVIRONMENTAL, LLC ON 7/6/2016 AND WERE LOCATED IN THE FIELD BY NORTHEAST SURVEY CONSULTANTS ON 7-21-2016. ALL OTHER WETLANDS SHOWN HEREON WERE DELINEATED BY MARK HAMPTON ASSOCIATES AND HORIZONTAL LOCATIONS ARE TAKEN FROM INFORMATION PROVIDED BY PINKHAM & GREER CIVIL ENGINEERS.

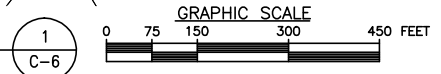
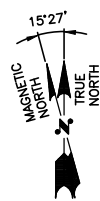
**SITE SPECIFIC NOTES:**

- VERIFY AZIMUTHS W/ RF ENGINEER.
- REFER TO STRUCTURAL ANALYSIS BY OTHERS.

**ZONING INFORMATION**

JURISDICTION:	TOWN OF FALMOUTH, ME	
ZONING DISTRICT TYPE:	RB (RESIDENTIAL B)	
DIMENSION REQUIREMENTS:	REQUIRED (FT)	PROP.± (FT)
FRONT YARD SETBACK:	N/A	2867'±
SIDE YARD SETBACK:	N/A	719'± & 1099'±
REAR YARD SETBACK:	N/A	611'±
MINIMUM BUILDING HEIGHT:	N/A	N/A
MAXIMUM LOT COVERAGE:	N/A	N/A

(ALL MEASUREMENTS ARE IN FEET ± UNLESS OTHERWISE NOTED)



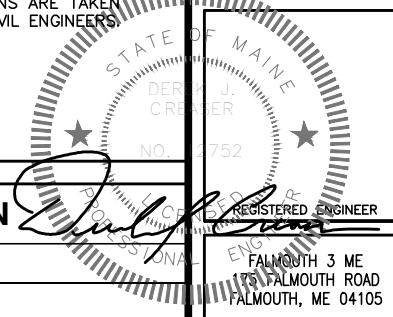
**SITE PLAN**  
SCALE: 1"=150'

**verizon wireless**  
400 FERBERG PARKWAY  
WESTBOROUGH, MA 01581  
(508) 330-3330 TEL

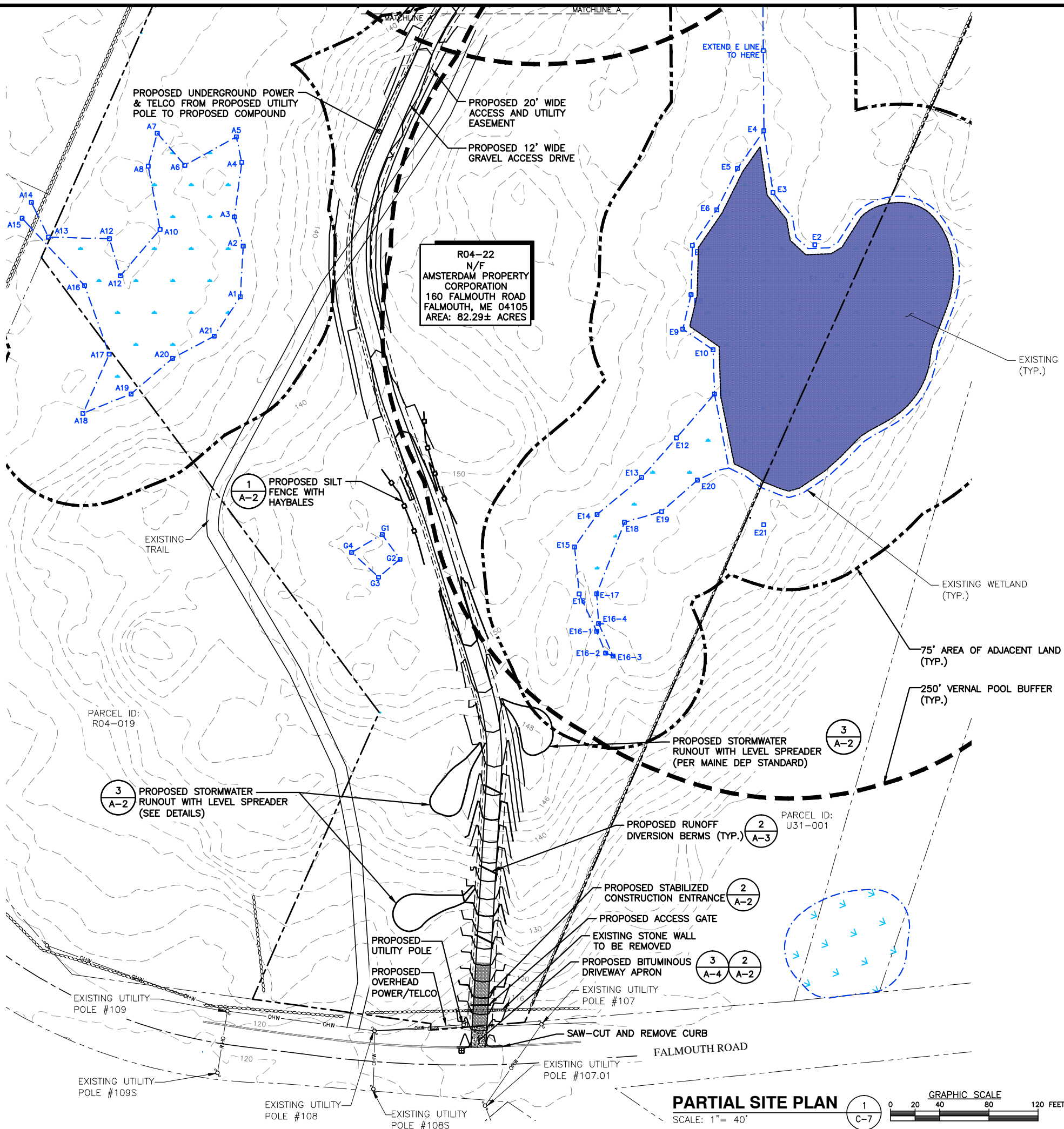
**Hudson Design Group**  
1400 OSGOOD STREET  
BUILDING 20 NORTH, SUITE 3090  
N. ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 334-5886

**SITE PLAN**

REV	DATE	DESCRIPTION	BY	CHK	APP'D
0	08/19/14	ISSUED FOR REVIEW	GC	JX	DPH
1	06/15/16	OUTDOOR EQUIP. & NEW ROAD DESIGN	HH	JX	DPH
2	06/05/16	ADDED ADDITIONAL WETLAND	HH	JX	DPH
3	08/29/16	CHANGED DRIVEWAY ALIGNMENT	HH	JX	DPH



**C-6**



R04-22  
N/F  
AMSTERDAM PROPERTY CORPORATION  
160 FALMOUTH ROAD  
FALMOUTH, ME 04105  
AREA: 82.29± ACRES

PARCEL ID:  
R04-019

PARCEL ID:  
U31-001

TOWN OF FALMOUTH, ME  
PLANNING BOARD

APPROXIMATE TOWER COORDINATES: LAT: N 43° 43' 42.05"  
LONG: W 70° 15' 45.75"

**LEGEND**

---	PROPERTY LINE - SUBJECT PARCEL
---	ABUTTING PROPERTY LINE
---	PROPOSED CONTOUR LINE
---	EXISTING CONTOUR LINE
---	EXISTING TREE LINE
---	PROPOSED EASEMENT LINE
---	STONE WALL
---	WETLAND LINE

**SOURCE**  
1. NORTHEAST SURVEY CONSULTANTS  
DATED: 07/22/16 (REV 3)  
TITLED: ABUTTERS PLAN/EXISTING CONDITIONS

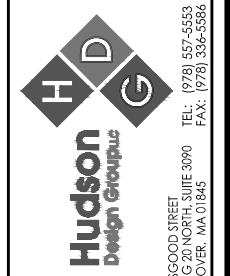
**SITE SPECIFIC NOTES:**

1. VERIFY AZIMUTHS W/ RF ENGINEER.
2. REFER TO STRUCTURAL ANALYSIS BY OTHERS.

**FOR ZONING**



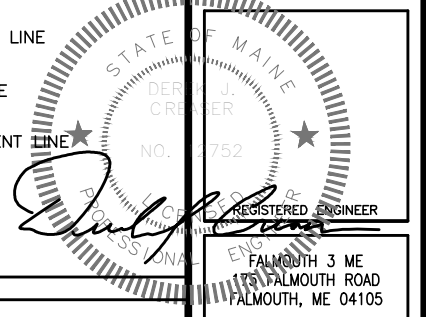
PREPARED FOR:



PREPARED BY:

**PARTIAL SITE PLAN**

REV	DATE	DESCRIPTION	BY	CHK	APP'D
0	08/19/14	ISSUED FOR REVIEW	GC	JX	DPH
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FALMOUTH 3 ME  
160 FALMOUTH ROAD  
FALMOUTH, ME 04105

**C-7**

**PARTIAL SITE PLAN**

SCALE: 1" = 40'



**FOR ZONING**

PREPARED FOR:

PREPARED BY:

**PARTIAL SITE PLAN**

REV	DATE	DESCRIPTION	BY	CHK	APP'D
0	08/19/14	ISSUED FOR REVIEW	GC	JX	DPH
1	06/15/16	OUTDOOR EQUIP. & NEW ROAD DESIGN	HH	JX	DPH
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LONG: W 70° 15' 45.75"

**LEGEND**

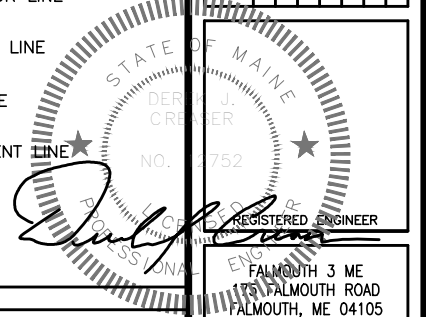
- PROPERTY LINE - SUBJECT PARCEL
- PROPOSED CONTOUR LINE
- EXISTING CONTOUR LINE
- EXISTING TREE LINE
- PROPOSED EASEMENT LINE
- STONE WALL
- WETLAND LINE

**SOURCE**

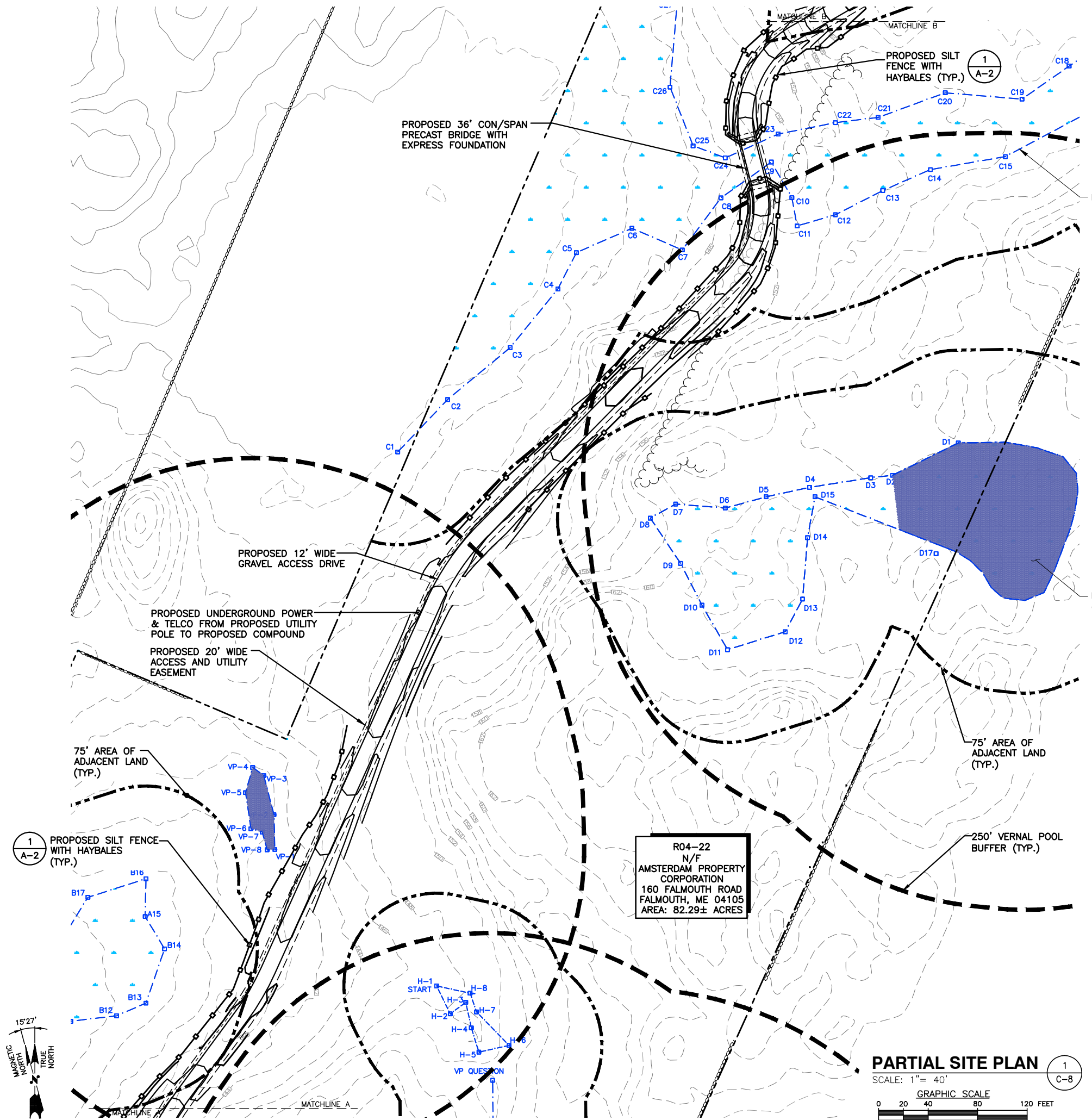
1. NORTHEAST SURVEY CONSULTANTS  
DATED: 07/22/16 (REV 3)  
TITLED: ABUTTERS PLAN/EXISTING CONDITIONS

**SITE SPECIFIC NOTES:**

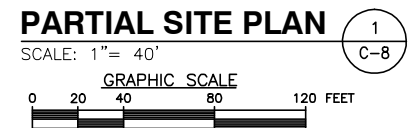
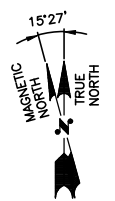
1. VERIFY AZIMUTHS W/ RF ENGINEER.
2. REFER TO STRUCTURAL ANALYSIS BY OTHERS.



**C-8**



1  
A-2  
PROPOSED SILT FENCE WITH HAYBALES (TYP.)





**FOR ZONING**

PREPARED FOR:

PREPARED BY:

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**PARTIAL SITE PLAN**

APPROXIMATE TOWER COORDINATES: LAT: N 43° 43' 42.05"  
LONG: W 70° 15' 45.75"

**LEGEND**

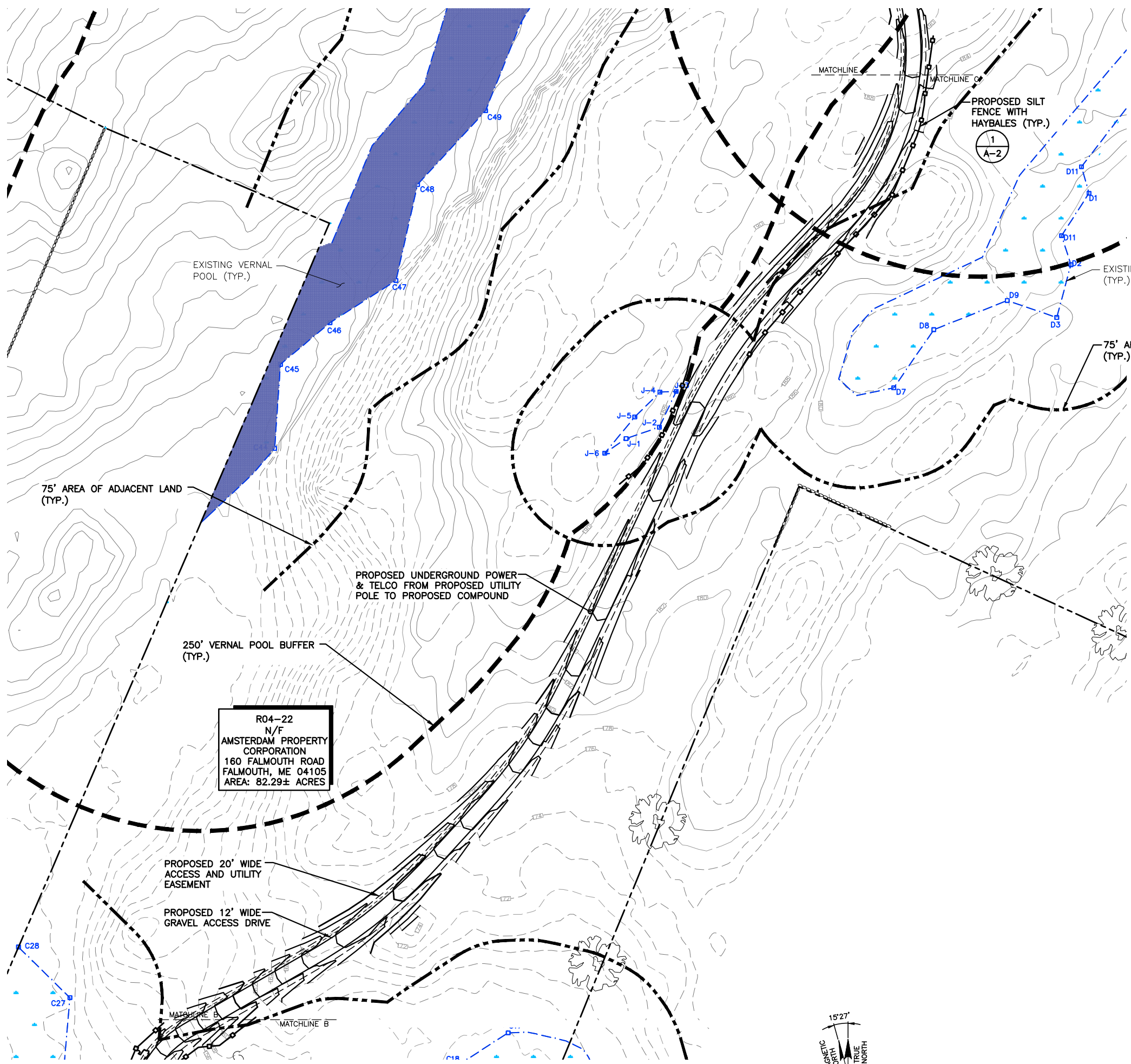
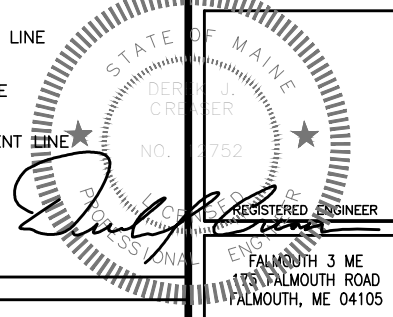
- PROPERTY LINE - SUBJECT PARCEL
- PROPOSED CONTOUR LINE
- EXISTING CONTOUR LINE
- EXISTING TREE LINE
- PROPOSED EASEMENT LINE
- STONE WALL
- WETLAND LINE

**SOURCE**

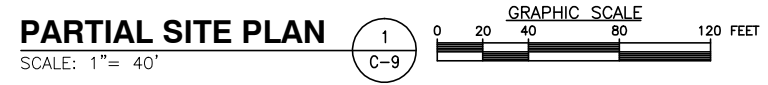
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**SITE SPECIFIC NOTES:**

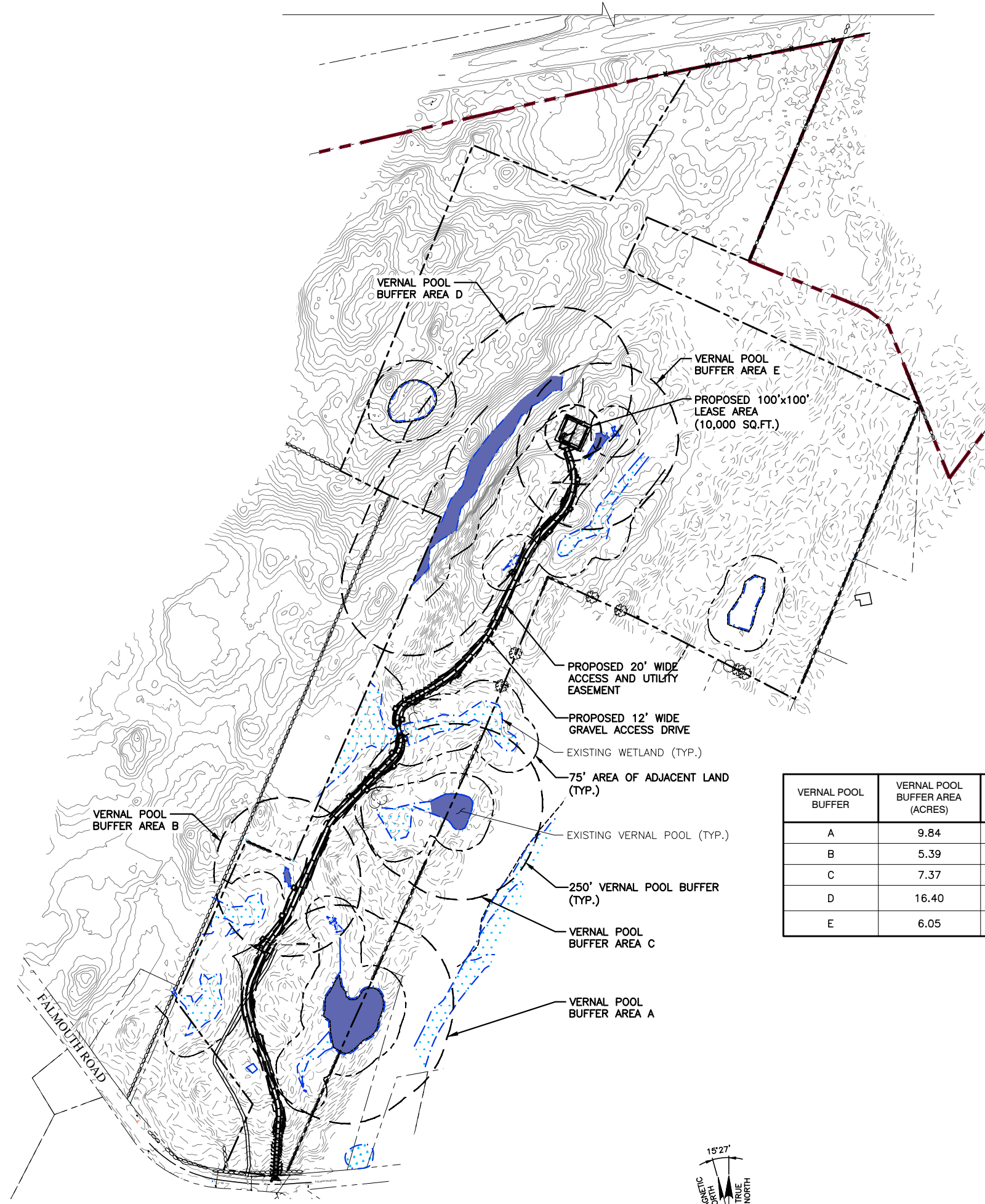
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R04-22  
N/F  
AMSTERDAM PROPERTY CORPORATION  
160 FALMOUTH ROAD  
FALMOUTH, ME 04105  
AREA: 82.29± ACRES



**C-9**



VERNAL POOL BUFFER	VERNAL POOL BUFFER AREA (ACRES)	DISTURBED AREA (ACRES)	PERCENTAGE (%)
A	9.84	0.4	4.07%
B	5.39	0.1	1.86%
C	7.37	0.18	2.44%
D	16.40	0.27	1.65%
E	6.05	0.45	7.44%

TOWN OF FALMOUTH, ME  
PLANNING BOARD

FOR ZONING

PREPARED FOR:

**verizon wireless**  
400 FERRELL PARKWAY  
WESTBORO, MA 01581  
(508) 330-3330 TEL

PREPARED BY:

**Hudson Design Group**  
1400 OSGOOD STREET  
BUILDING 20 NORTH, SUITE 3090  
N. ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 334-5886

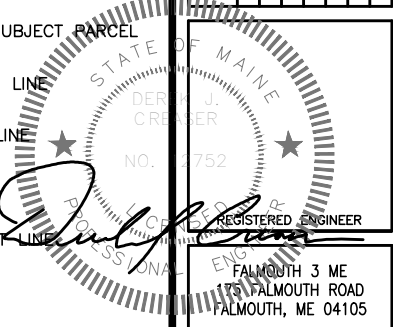
VERNAL POOL PLAN

REV	DATE	DESCRIPTION	BY	CHK	APP'D
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- ~~~~~ EXISTING TREE LINE
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- STONE WALL
- WETLAND LINE
- SOIL BOUNDARY



FALMOUTH 3 ME  
175 FALMOUTH ROAD  
FALMOUTH, ME 04105

**VERNAL POOL PLAN**  
SCALE: 1" = 200'

GRAPHIC SCALE  
0 100 200 400 600 FEET

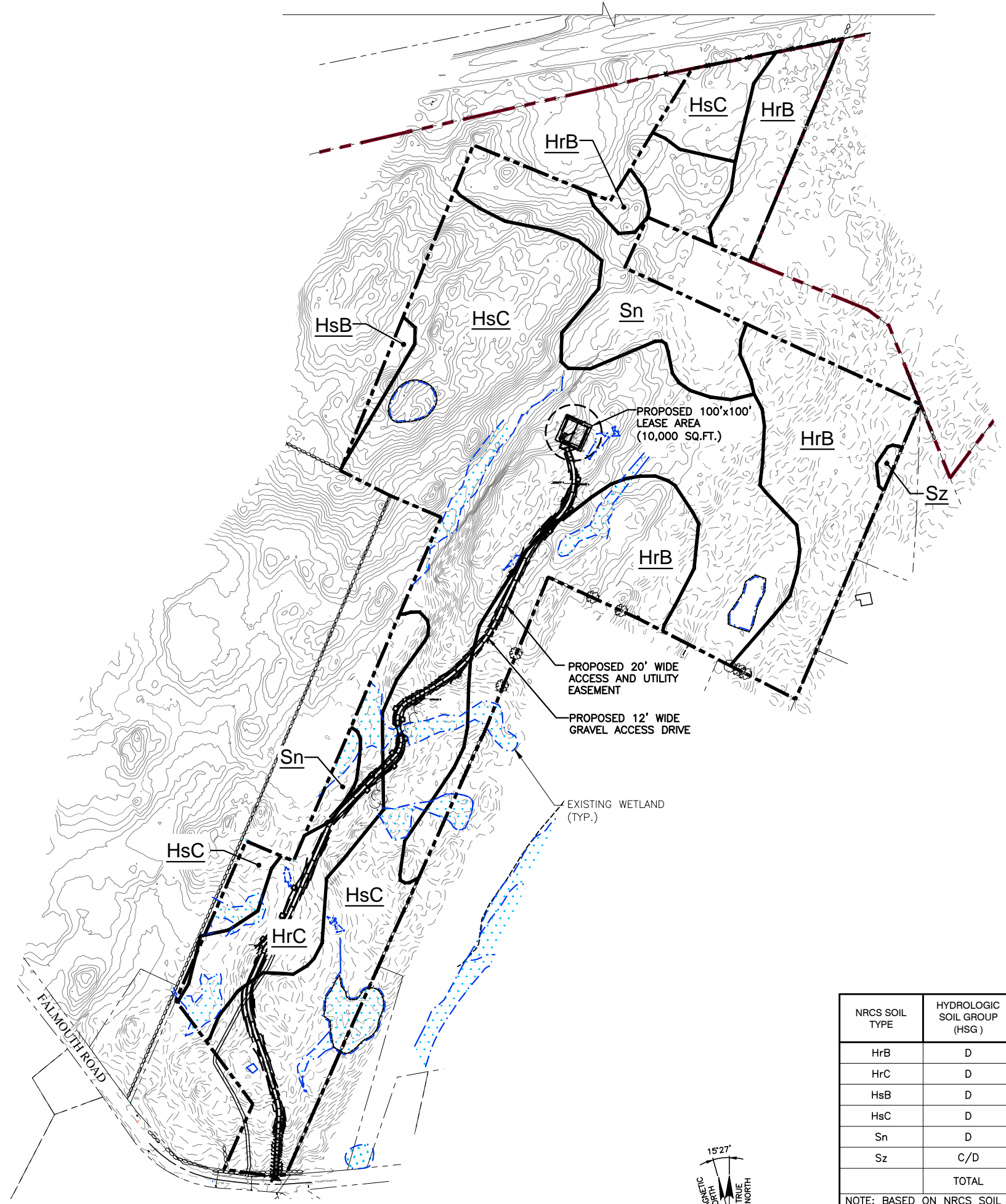
1  
C-10

MAGNETIC NORTH  
TRUE NORTH

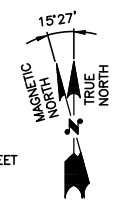
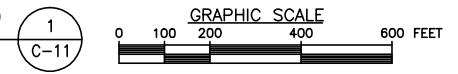
**SITE SPECIFIC NOTES:**

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**C-10**



**SITE-SPECIFIC SOIL MAP**  
SCALE: 1" = 200'



NRCS SOIL TYPE	HYDROLOGIC SOIL GROUP (HSG)	AREA (ACRES)
HrB	D	20.93
HrC	D	6.06
HsB	D	0.52
HsC	D	45.18
Sn	D	9.43
Sz	C/D	0.17
TOTAL		82.29

NOTE: BASED ON NRCS SOIL SURVEY DATA OF CUMBERLAND COUNTRY

TOWN OF FALMOUTH, ME  
PLANNING BOARD

**FOR ZONING**

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PREPARED FOR:

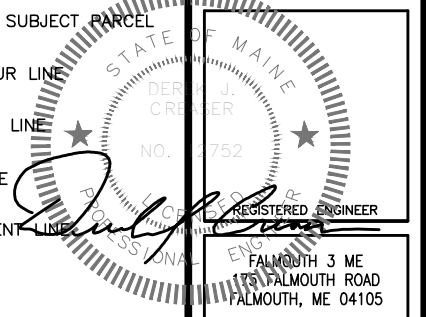
**verizon wireless**  
400 FERRELL PARKWAY  
WESTBORO, MA 01581  
(508) 330-3330 TEL

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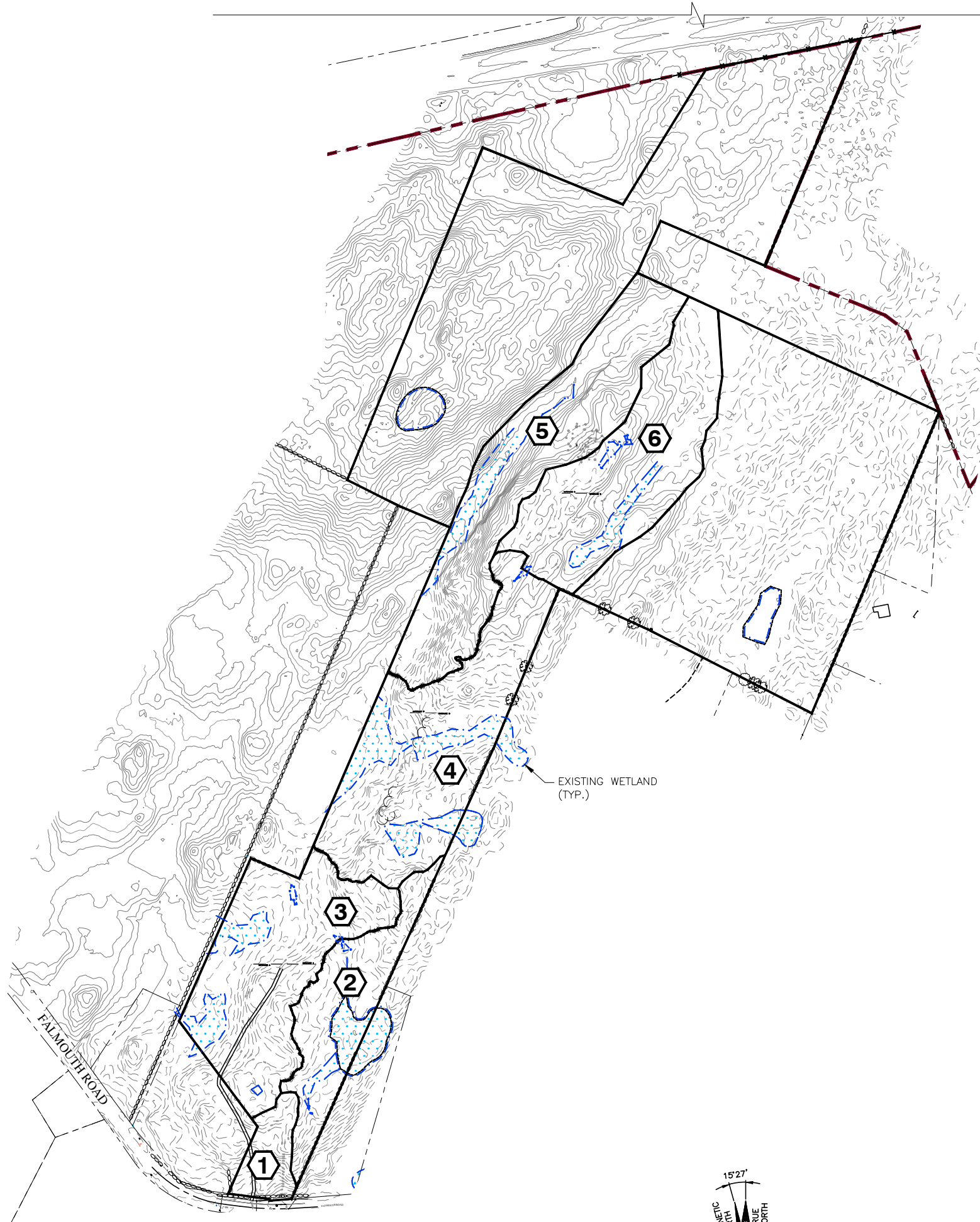
**SITE-SPECIFIC SOIL MAP**

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FALMOUTH 3 ME  
175 FALMOUTH ROAD  
FALMOUTH, ME 04105

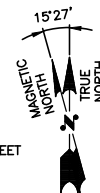
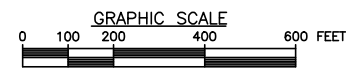
**C-11**



**EXISTING DRAINAGE CONDITONS**

SCALE: 1" = 200'

1  
C-12



TOWN OF FALMOUTH, ME  
PLANNING BOARD

DRAINAGE CATCHMENT	AREA (ACRES)	WEIGHTED CN	TIME OF CONCENTRATION T _c (MINS)
①	1.286	79	4.9
②	4.152	81	13.6
③	7.699	80	7.2
④	9.296	81	9.3
⑤	8.500	80	3.1
⑥	7.690	80	4.1

APPROXIMATE TOWER COORDINATES:

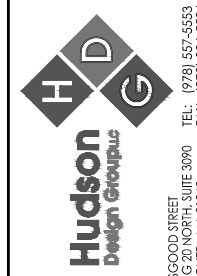
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**LEGEND**

- PROPERTY LINE -- SUBJECT PARCEL
- PROPOSED CONTOUR LINE
- EXISTING CONTOUR LINE
- ~~~~~ EXISTING TREE LINE
- PROPOSED EASEMENT LINE
- STONE WALL
- WETLAND LINE
- ② DRAINAGE AREA OR CATCHMENT

**FOR ZONING**

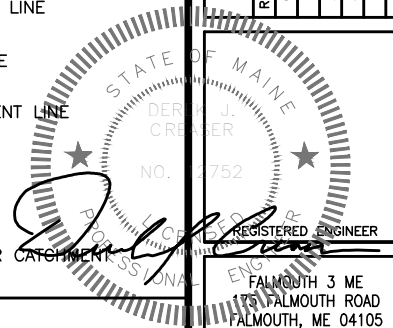
PREPARED FOR:



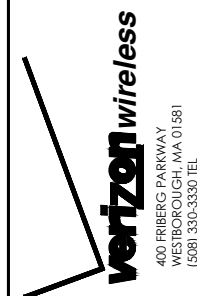
PREPARED BY:

**EXISTING DRAINAGE CONDITIONS**

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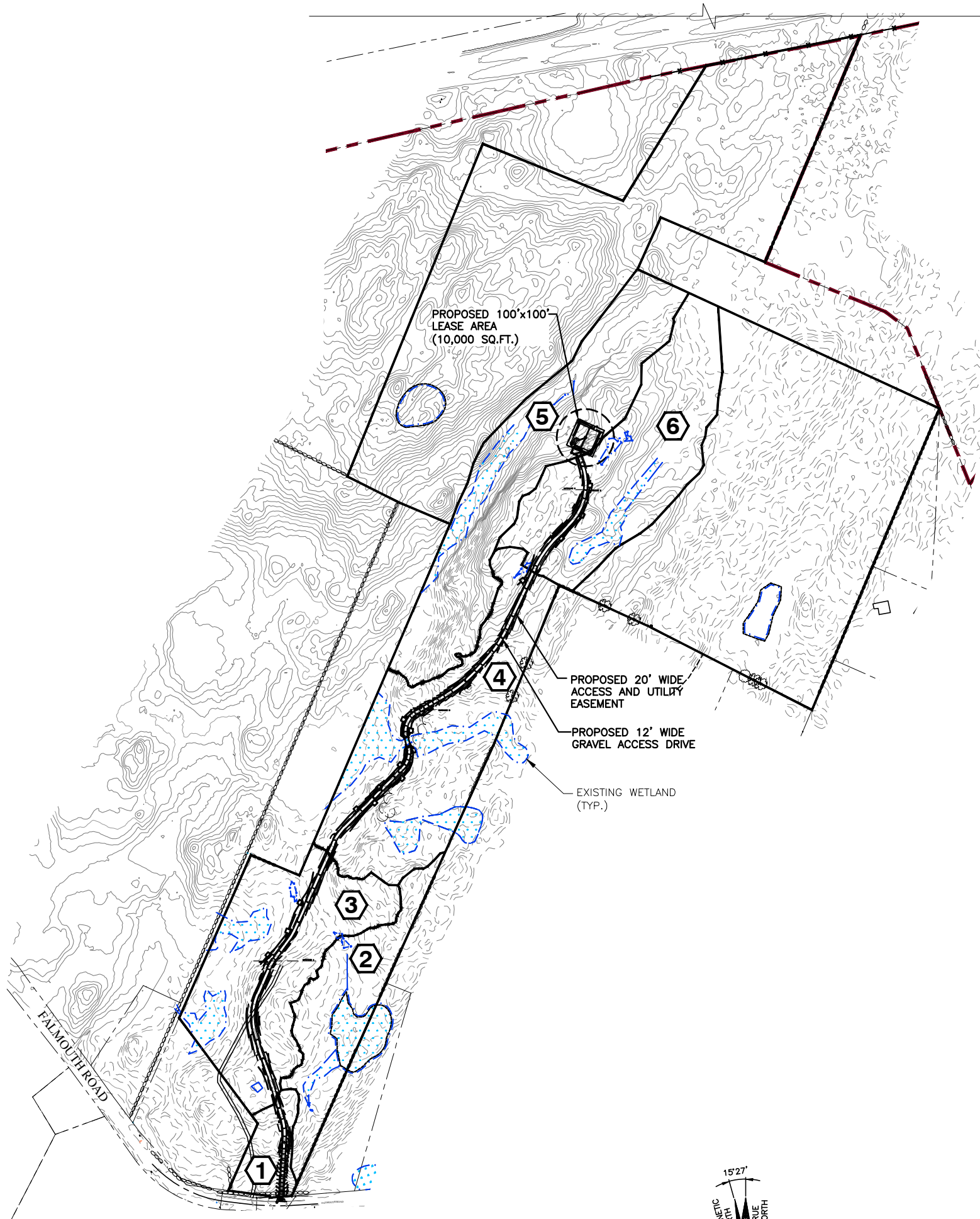


FALMOUTH 3 ME  
175 FALMOUTH ROAD  
FALMOUTH, ME 04105



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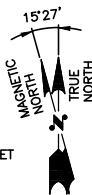
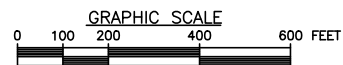
**C-12**



**PROPOSED DRAINAGE CONDITONS**

SCALE: 1" = 200'

1  
C-13



TOWN OF FALMOUTH, ME  
PLANNING BOARD

DRAINAGE CATCHMENT	AREA (ACRES)	WEIGHTED CN	TIME OF CONCENTRATION T _c (MINS)
①	1.286	80	4.8
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⑤	8.500	80	3.1
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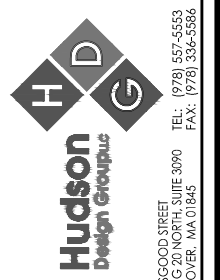
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**FOR ZONING**

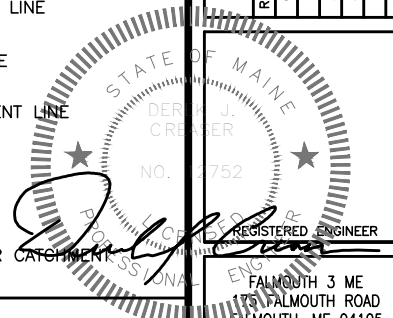
PREPARED FOR:



PREPARED BY:

**PROPOSED DRAINAGE CONDITIONS**

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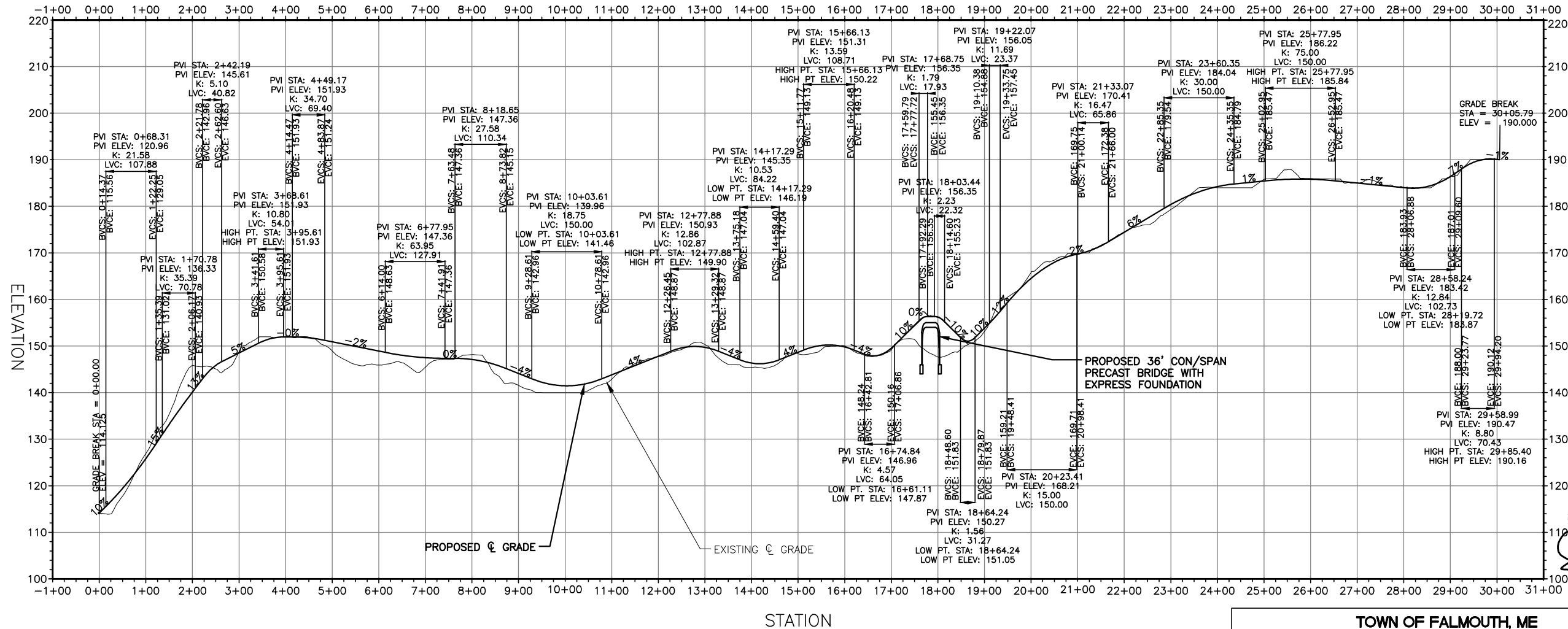
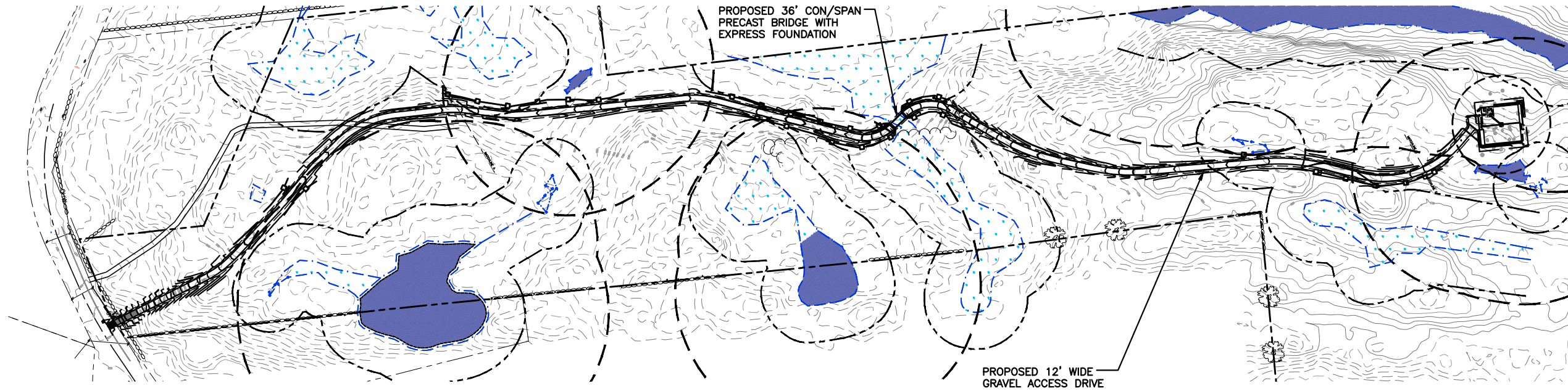


FALMOUTH 3 ME  
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FALMOUTH, ME 04105

**C-13**

**verizon wireless**  
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(508) 330-3330 TEL

1400 OSGOOD STREET  
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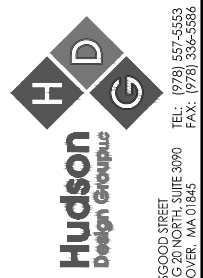


**DRIVEWAY PROFILE**  
SCALE: N.T.S.

1  
C-14

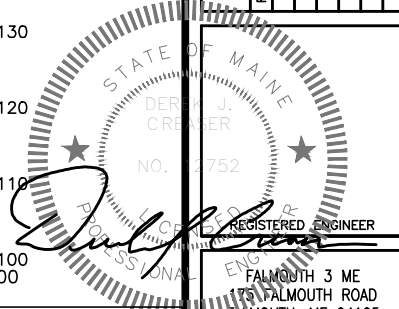
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PREPARED FOR:



PREPARED BY:

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TOWN OF FALMOUTH, ME  
PLANNING BOARD

FALMOUTH 3 ME  
175 FALMOUTH ROAD  
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**C-14**

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WESTBEGG, OH, WA 01581  
(508) 330-3330 TEL

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**FOR ZONING**

PREPARED BY:

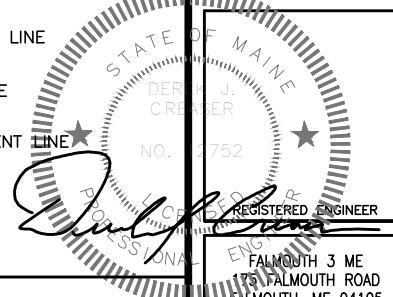
**PARTIAL SITE PLAN**

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1	06/15/16	OUTDOOR EQUIP. & NEW ROAD DESIGN	HH	JX	DPH
2	06/05/16	ADDED ADDITIONAL WETLAND	HH	JX	DPH
3	08/29/16	CHANGED DRIVEWAY ALIGNMENT	HH	JX	DPH

APPROXIMATE TOWER COORDINATES: LAT: N 43° 43' 42.05"  
LONG: W 70° 15' 45.75"

**LEGEND**

- PROPERTY LINE - SUBJECT PARCEL
- PROPOSED CONTOUR LINE
- EXISTING CONTOUR LINE
- EXISTING TREE LINE
- PROPOSED EASEMENT LINE
- STONE WALL
- WETLAND LINE



**SOURCE**

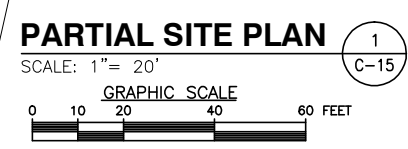
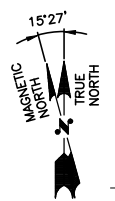
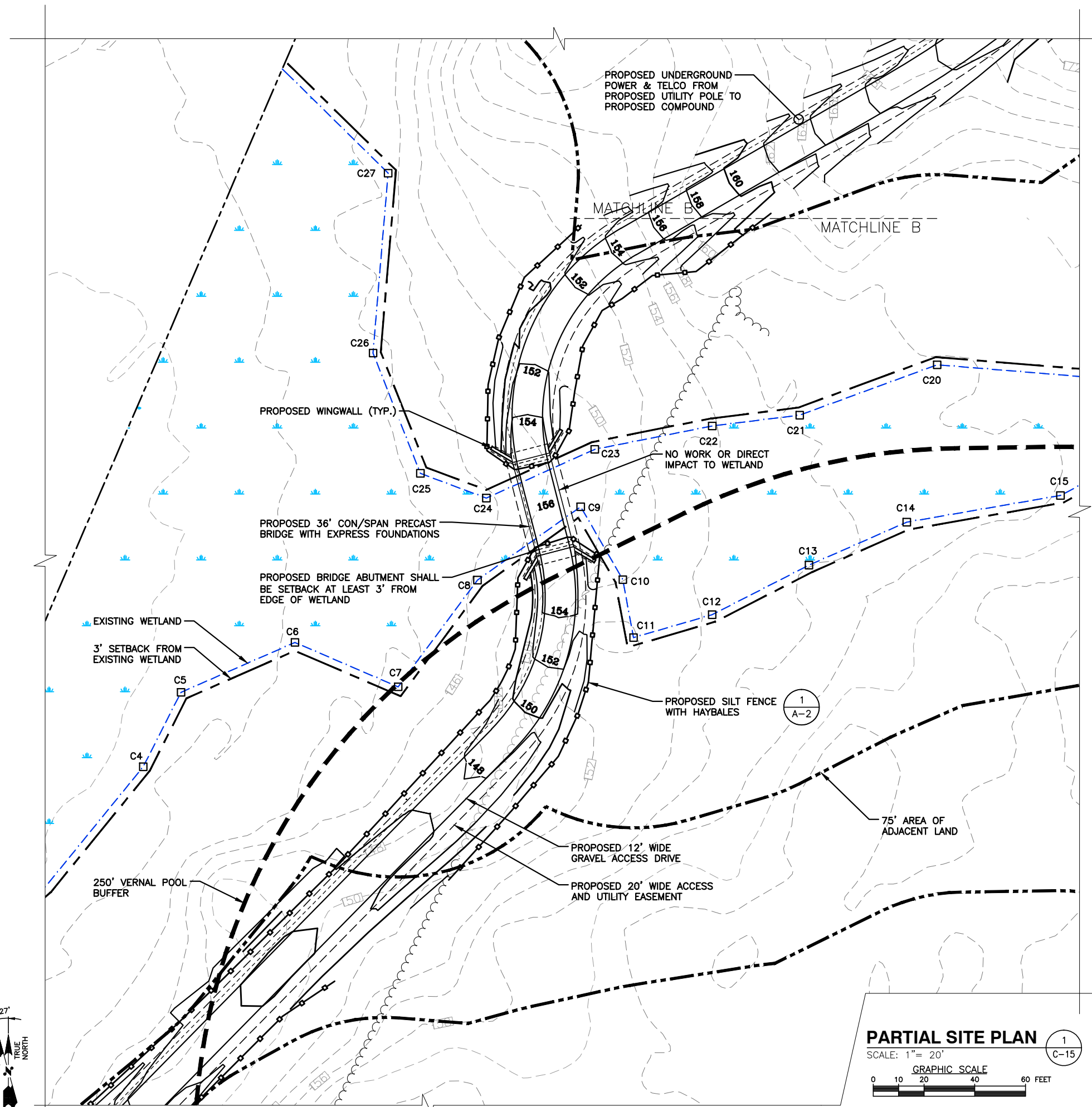
- NORTHEAST SURVEY CONSULTANTS  
DATED: 07/22/16 (REV 3)  
TITLED: ABUTTERS PLAN/EXISTING CONDITIONS

**SITE SPECIFIC NOTES:**

- VERIFY AZIMUTHS W/ RF ENGINEER.
- REFER TO STRUCTURAL ANALYSIS BY OTHERS.

FALMOUTH 3 ME  
175 FALMOUTH ROAD  
FALMOUTH, ME 04105

**C-15**

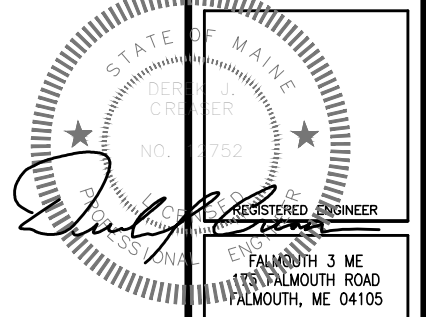


**FOR ZONING**

PREPARED BY:

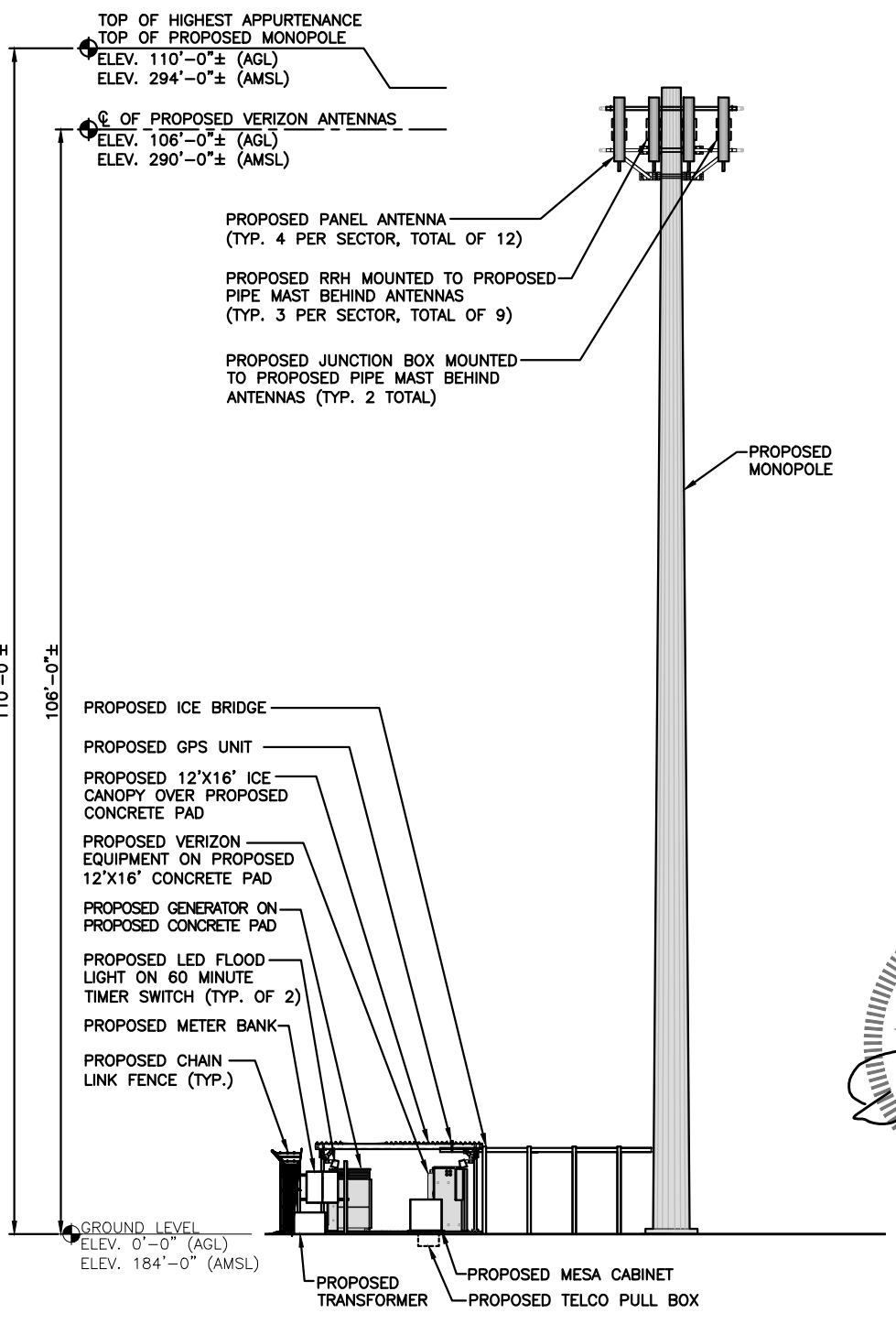
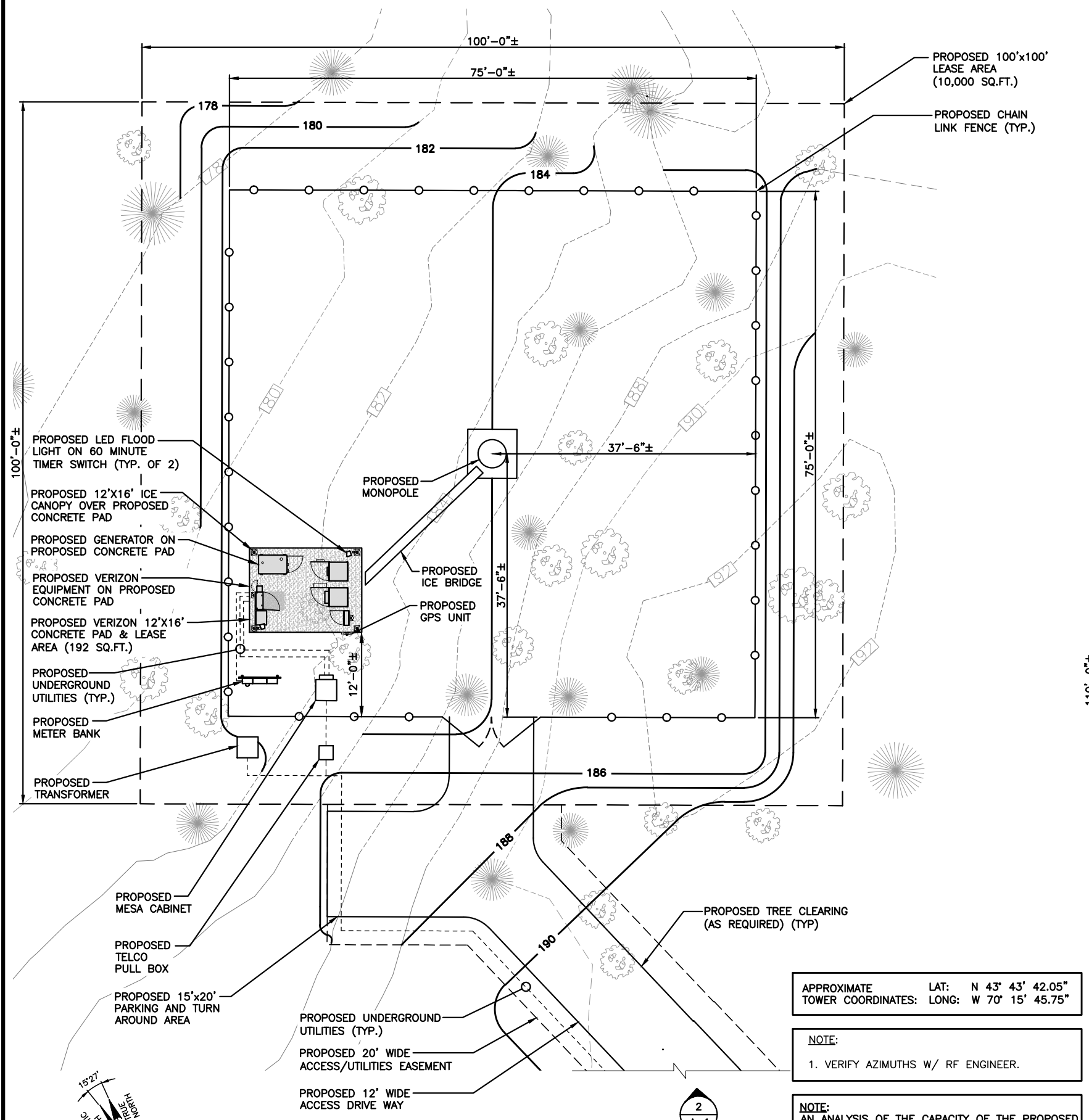
COMPOUND PLAN AND ELEVATION

REV	DATE	DESCRIPTION	BY	CHK	APP'D
0	08/19/14	ISSUED FOR REVIEW	GC	JX	DPH
1	06/15/16	OUTDOOR EQUIP. & NEW ROAD DESIGN	HH	JX	DPH
2	06/05/16	ADDED ADDITIONAL WETLAND	HH	JX	DPH
3	08/29/16	CHANGED DRIVEWAY ALIGNMENT	HH	JX	DPH



FALMOUTH 3 ME  
175 FALMOUTH ROAD  
FALMOUTH, ME 04105

**A-1**

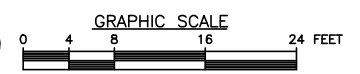


**NORTH ELEVATION**

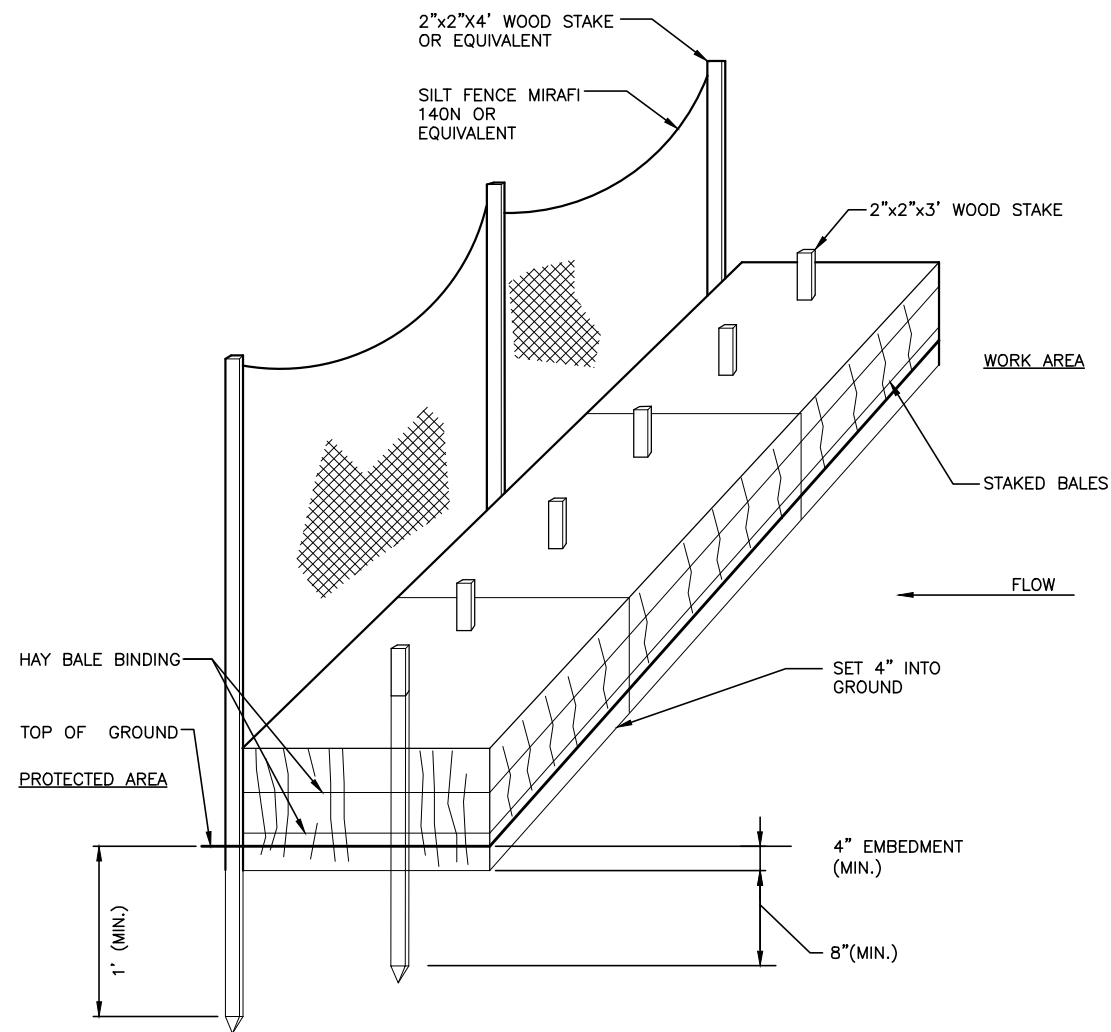
**COMPOUND PLAN**



**NORTH ELEVATION**







**HAY BALES/ SILT FENCE DETAIL** 1  
SCALE: N.T.S. A-2

**CONSTRUCTION SPECIFICATION – SILT FENCE:**

1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.
2. THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.
3. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES.
4. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MID-SECTION AND BOTTOM.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED.
6. FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.
7. MAINTENANCE SHALL BE PERFORMED AS NEEDED TO PREVENT BULGES IN THE SILT FENCE DUE TO DEPOSITION OF SEDIMENT.

**MAINTENANCE – SILT FENCE**

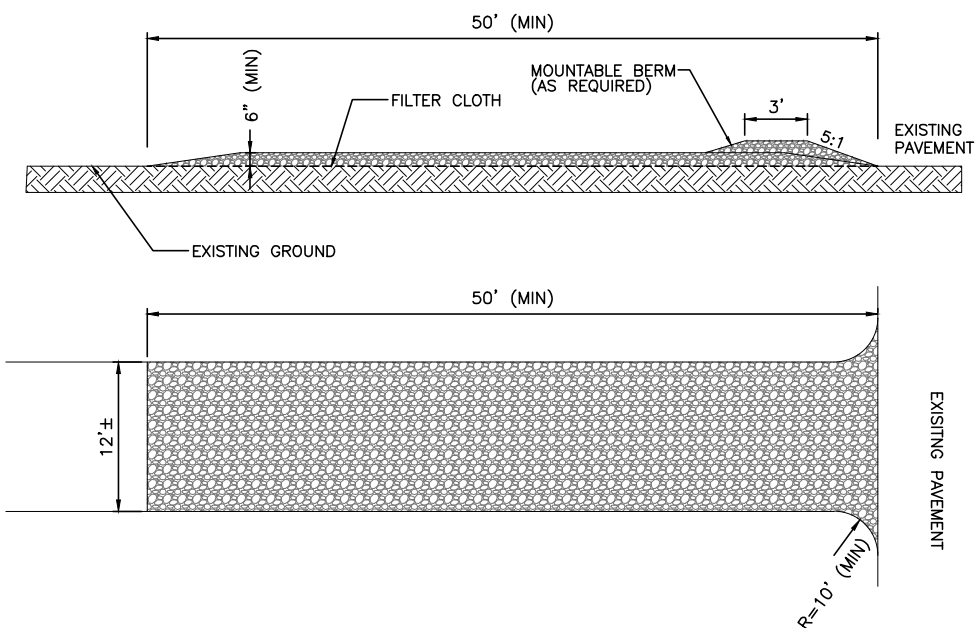
1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACHED APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.
5. REMOVE ALL SEDIMENTATION CONTROLS AFTER SOIL IS STABILIZED.

**EROSION CONTROL MEASURES:**

1. DISTURBED AREAS SHALL BE KEPT TO THE MINIMUM AREA NECESSARY TO CONSTRUCT THE ROADWAYS AND ASSOCIATED DRAINAGE FACILITIES.
2. HAY BALE BARRIERS AND SEDIMENT TRAPS SHALL BE INSTALLED AS REQUIRED. BARRIERS AND TRAPS ARE TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE A HEALTHY STAND OF GRASS.
3. BALED HAY AND MULCH SHALL BE MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE FROM NOXIOUS WEEDS OR WOODY STEMS, AND SHALL BE DRY. NO SALT HAY SHALL BE USED.
4. FILL MATERIAL SHALL BE FREE FROM STUMPS, WOOD, ROOTS, ETC.
5. STOCKPILED MATERIALS SHALL BE PLACED ONLY IN AREAS SHOWN ON THE PLANS. STOCKPILES SHALL BE PROTECTED BY SILTATION FENCE AND SEEDED TO PREVENT EROSION. THESE MEASURES SHALL REMAIN UNTIL ALL MATERIAL HAS BEEN PLACED OR DISPOSED OFF SITE.
6. ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDDED. A MINIMUM OF 4 INCHES OF LOAM SHALL BE INSTALLED WITH NOT LESS THAN ONE POUND OF SEED PER 50 SQUARE YARDS OF AREA.
7. APPLICATION OF GRASS SEED, FERTILIZERS AND MULCH SHALL BE ACCOMPLISHED BY BROADCAST SEEDING OR HYDROSEEDING AT THE RATES OUTLINED BELOW:

<b>LIMESTONE:</b>	75-100 LBS./1,000 SQ FT	
<b>FERTILIZER:</b>	RATE RECOMMENDED BY MANUFACTURER	
<b>MULCH:</b>	HAY MULCH APPROXIMATELY 3 TON/ACRE UNLESS CONTROL MATTING IS USED	
<b>EROSION SEED MIX:</b>	(SLOPES LESS THAN 4:1) <b>LBS./ACRE</b>	
	CREeping RED RESCUE	20
	TALL RESCUE	20
	REDTOP	2
		42
	(SLOPES GREATER THAN 4:1) <b>LBS./ACRE</b>	
	CREeping RED RESCUE	20
	TALL RESCUE	20
	BIRDSFOOT TREEFOIL	8
		48

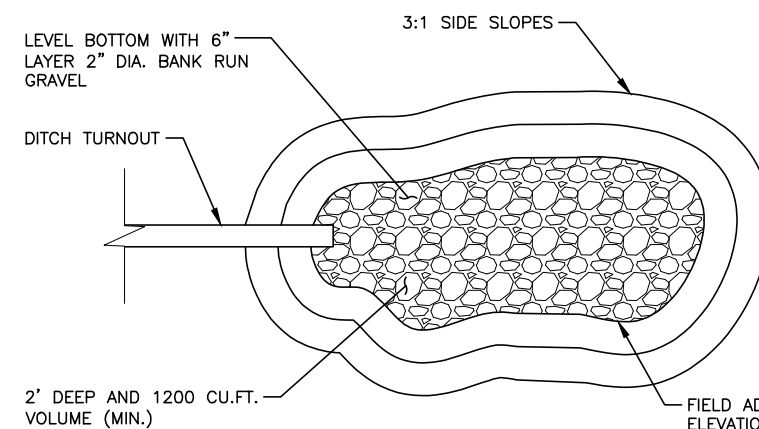
8. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED.
9. ALL CATCH BASIN INLETS WILL BE PROTECTED WITH LOW POINT SEDIMENTATION BARRIER.
10. ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED AND CLEANED AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
11. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA.
12. NO DISCHARGE SHALL BE DIRECTED TOWARDS ANY PROPOSED DITCHES, SWALES, OR PONDS UNTIL THEY HAVE BEEN PROPERLY STABILIZED.



**STABILIZED CONSTRUCTION ENTRANCE DETAIL** 2  
SCALE: N.T.S. A-2

**NOTES:**

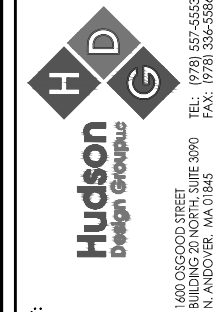
1. STONE SIZE – USE 37 MM (1 1/2 IN.) STONE.
2. LENGTH – NOT LESS THAN 15M (50 FT.)
3. THICKNESS – NOT LESS THAN 150MM (6 IN.)
4. WIDTH – 3.5 METER (TWELVE (12) FT.) MINIMUM,
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



**DITCH TURNOUT / LEVEL SPREADER DETAIL** 3  
SCALE: N.T.S. A-2

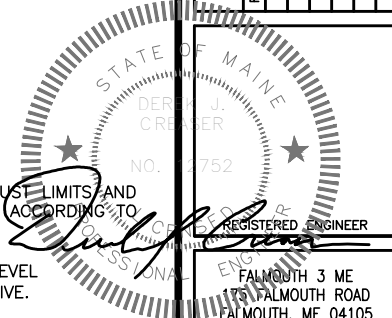
**FOR ZONING**

PREPARED FOR:



PREPARED BY:

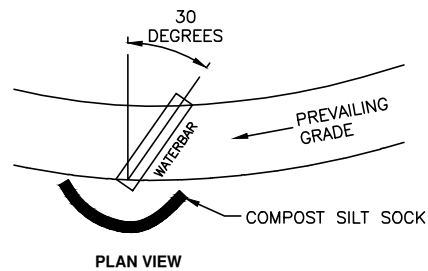
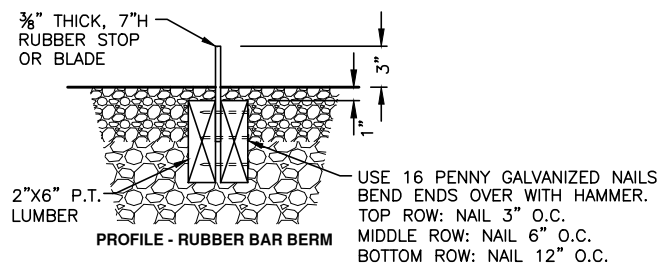
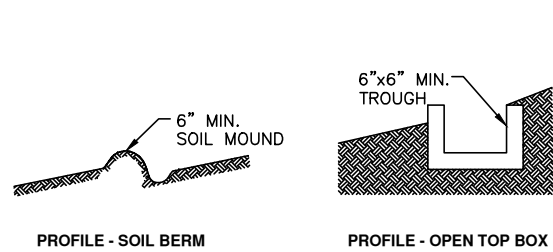
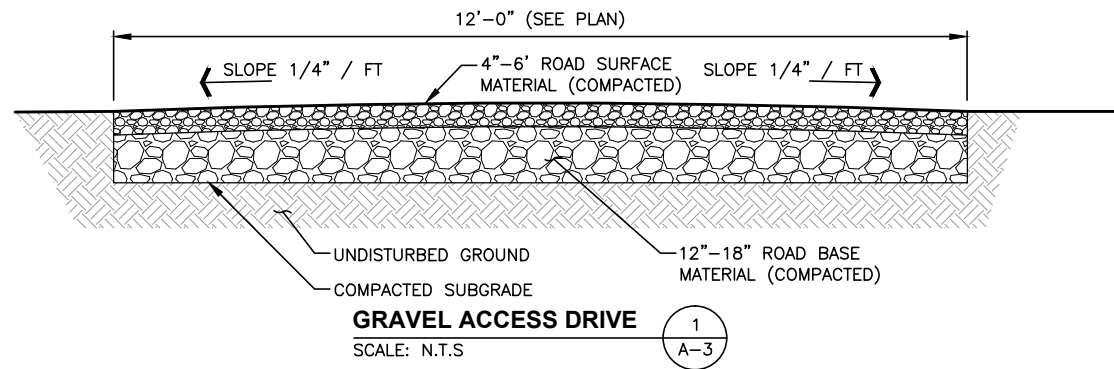
REV	DATE	DESCRIPTION	CHK			APP'D		
			GC	JX	DPH	GC	JX	DPH
0	08/19/14	ISSUED FOR REVIEW						
1	06/15/16	OUTDOOR EQUIP. & NEW ROAD DESIGN						
2	06/05/16	ADDED ADDITIONAL WETLAND						
3	08/29/16	CHANGED DRIVEWAY ALIGNMENT						



FALMOUTH 3 ME  
175 FALMOUTH ROAD  
FALMOUTH, ME 04105

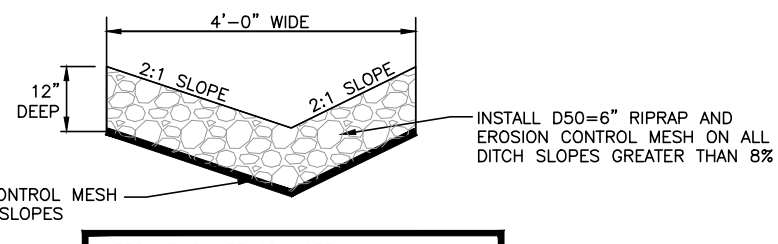
**A-2**

MAINE DOT (2014) STANDARD SPECIFICATIONS			
ROAD BASE MATERIAL		ROAD SURFACE MATERIAL	
ALL MATERIAL LESS THAN 6" IN SIZE		ALL MATERIAL LESS THAN 2" IN SIZE	
% BY WEIGHT	IS SMALLER THAN	% BY WEIGHT	IS SMALLER THAN
78-100	1 1/2"	85-100	3/4"
55-75	3/4"	70-100	1/2"
30-55	1/4"	55-85	1/4"
8-22	#40 (SAND)	20-35	#40 (SAND)
0-7	#200 (SILT)	7-12	#200 (SILT)



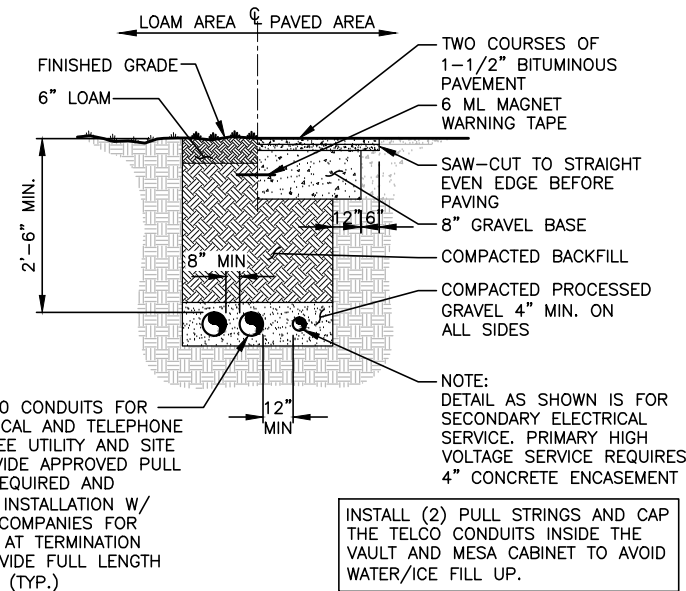
- NOTES:**
- OPEN TOP BOX TO BE CONSTRUCTED FROM 2" THICK WOOD.
  - INSTALL BARS AT LOCATIONS INDICATED ON PLANS
  - SOIL MOUNDED WATERBAR SHALL CONSIST OF A 6" MOUND OF COMPACTED SOIL IMMEDIATELY DOWNGRADIENT OF TROUGH.

**DIVERSION BERM DETAIL**  
SCALE: N.T.S.



**ALTERNATIVE METHOD NOTE:**  
STABILIZATION FABRIC, SEEDING, AND HAY MULCHING MAY BE USED AS AN ALTERNATIVE METHOD FOR EROSION CONTROL.

**RIP-RAP DITCH DETAIL**  
SCALE: N.T.S.

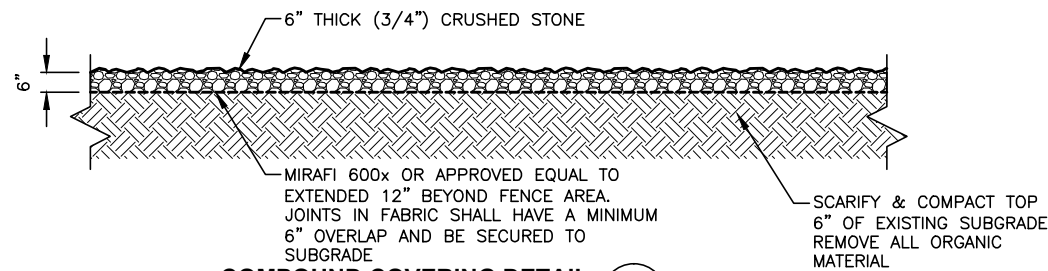


SCHEDULE 40 CONDUITS FOR NEW ELECTRICAL AND TELEPHONE SERVICES, SEE UTILITY AND SITE PLANS. PROVIDE APPROVED PULL BOXES AS REQUIRED AND COORDINATE INSTALLATION W/ ALL UTILITY COMPANIES FOR INTERFACING AT TERMINATION POINTS. PROVIDE FULL LENGTH PULL ROPES (TYP.)

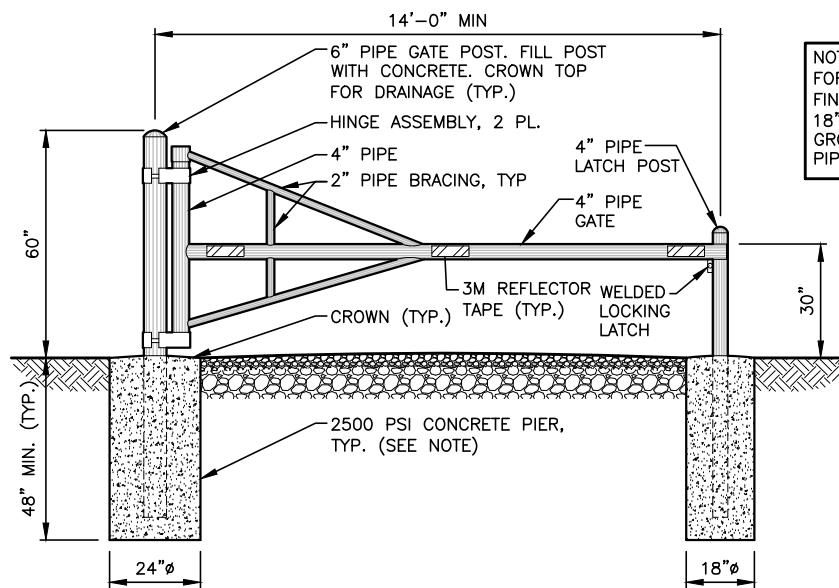
NOTE: DETAIL AS SHOWN IS FOR SECONDARY ELECTRICAL SERVICE. PRIMARY HIGH VOLTAGE SERVICE REQUIRES 4" CONCRETE ENCASEMENT

INSTALL (2) PULL STRINGS AND CAP THE TELCO CONDUITS INSIDE THE VAULT AND MESA CABINET TO AVOID WATER/ICE FILL UP.

**BURIED CONDUIT DETAIL**  
SCALE: N.T.S.



**COMPOUND COVERING DETAIL**  
SCALE: N.T.S.

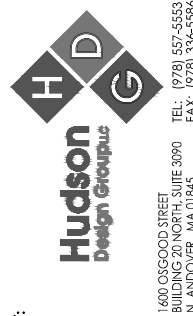


NOTE: FOR BURIED LEDGE AT LESS THAN 48" BELOW FINISH GRADE, CORE 12" DIAM. HOLE INTO LEDGE 18" DEEP. FILL AROUND PIPE WITH NON-SHRINK GROUT. USE COAL TAR ON BURIED LENGTH OF PIPE, AND BACKFILL TO FINISH GRADE.

**SWING GATE DETAIL**  
SCALE: N.T.S.

**FOR ZONING**

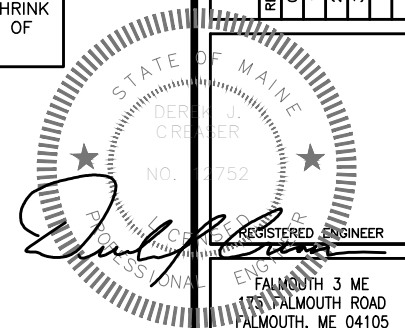
PREPARED FOR:



PREPARED BY:

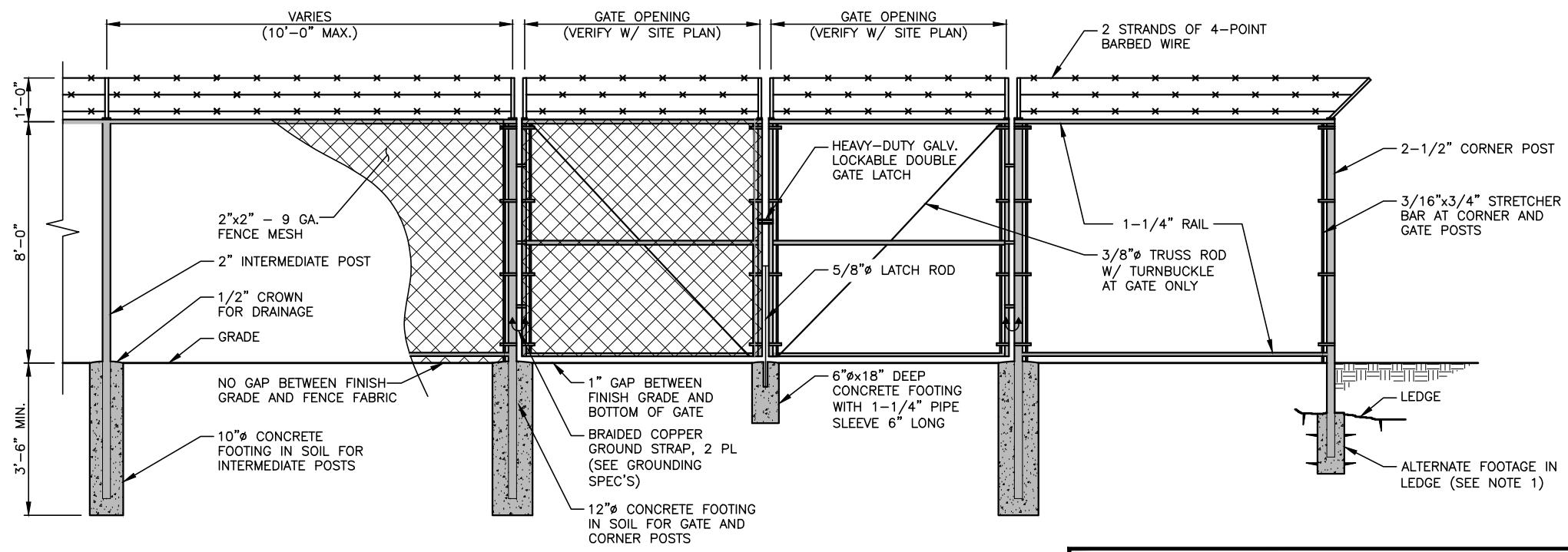
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1	08/15/16	OUTDOOR EQUIP. & NEW ROAD DESIGN	HH	JX	DPH
2	08/05/16	ADDED ADDITIONAL WETLAND	HH	JX	DPH
3	08/29/16	CHANGED DRIVEWAY ALIGNMENT	HH	JX	DPH

**DETAILS**



REGISTERED ENGINEER  
FALMOUTH 3 ME  
175 FALMOUTH ROAD  
FALMOUTH, ME 04105

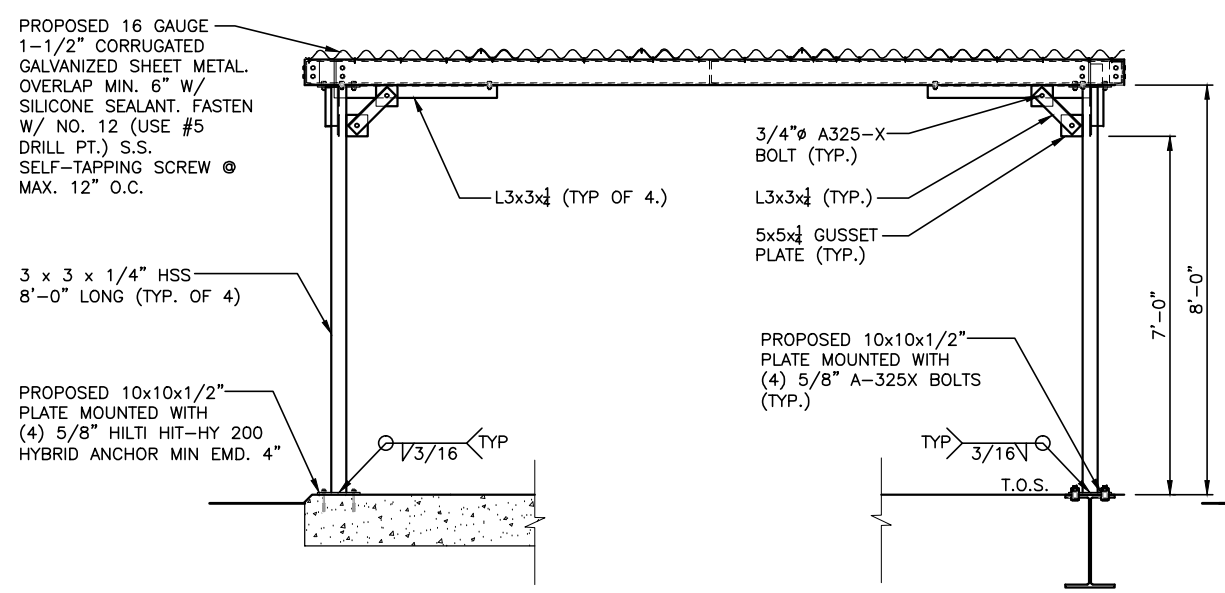
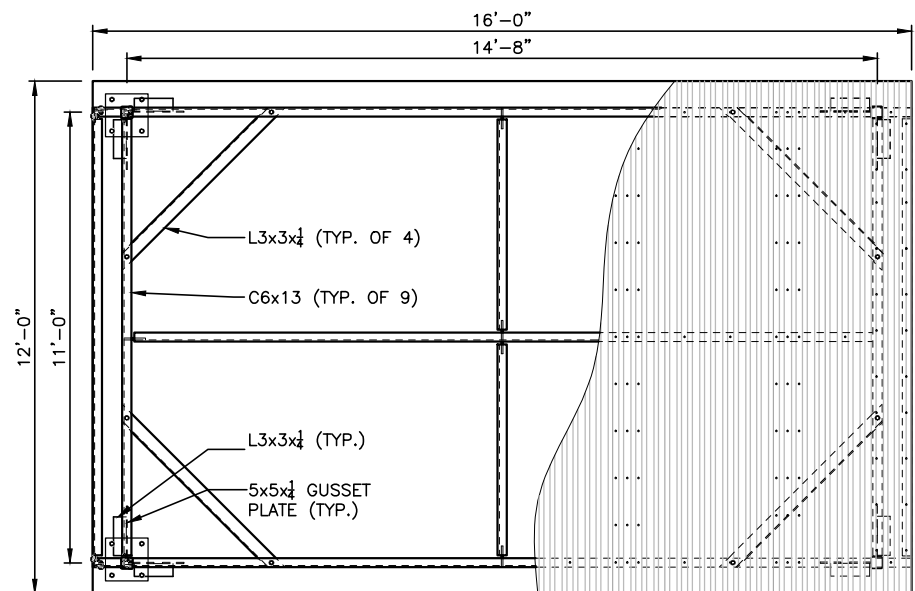
**A-3**



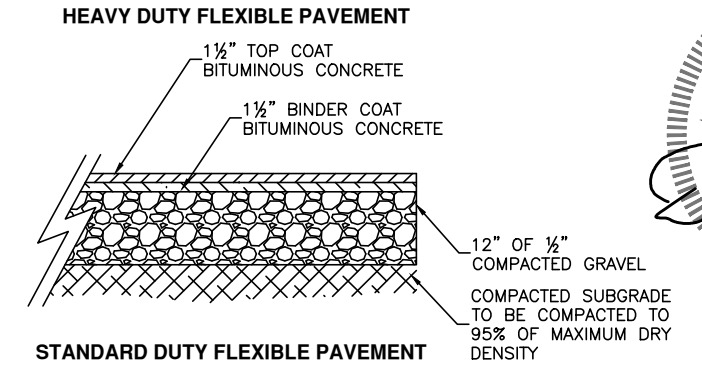
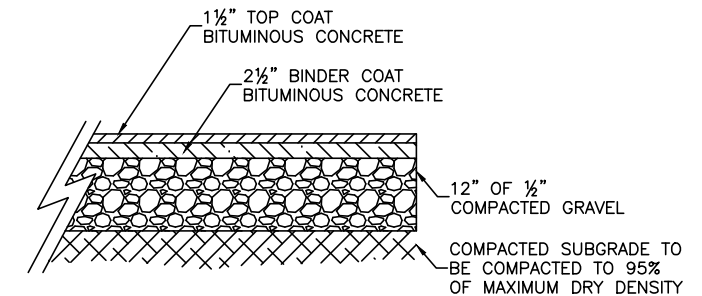
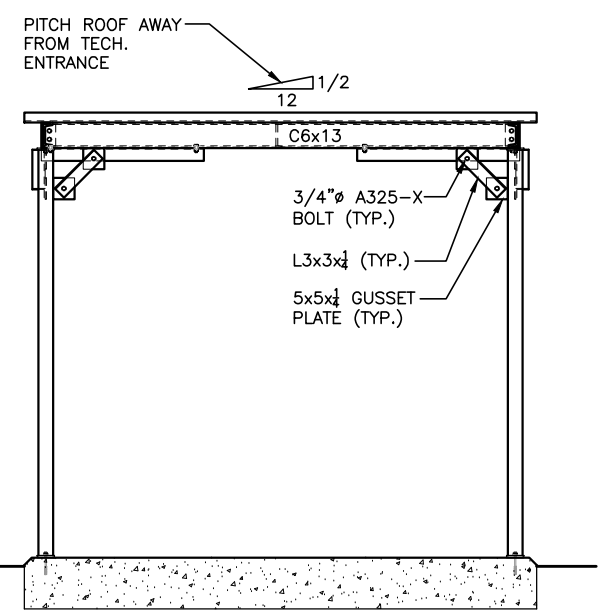
**CHAINLINK FENCE DETAIL** 1  
SCALE: N.T.S. A-4

**FENCE NOTES**

1. ALTERNATE FOOTINGS FOR ALL FENCE POSTS IN LEDGE: IF LEDGE IS ENCOUNTERED AT GRADE, OR AT A DEPTH SHALLOWER THAN 3'-6", CORE DRILL AN 8" DIA HOLE 18" INTO THE LEDGE. CENTER POST IN THE HOLE AND FILL WITH CONCRETE OR GROUT. IF LEDGE IS BELOW FINISH GRADE, COAT BACKFILLED SECTION OF POST WITH COAL TAR, AND BACKFILL WITH WELL-DRAINING GRAVEL.
2. ATTACH EACH GATE WITH 1-1/2 PAIR OF NON-LIFT-OFF TYPE, MALLEABLE IRON OR FORGING, PIN-TYPE HINGES. ASSEMBLIES SHALL ALLOW FOR 180° OF GATE TRAVEL.



**ICE CANOPY DETAIL** 2  
22x34 SCALE: N.T.S. A-4



**BITUMINOUS CONCRETE PAVEMENT DETAIL** 3  
SCALE: N.T.S. A-4

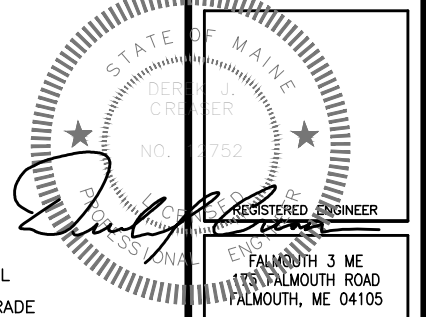
**FOR ZONING**

PREPARED FOR:  
**verizon wireless**  
1400 FERBERG PARKWAY  
WESTBORO, MA 01581  
(978) 330-3330 TEL

PREPARED BY:  
**Hudson Design Group**  
1400 OSGOOD STREET  
BUILDING 20 NORTH, SUITE 3090  
N. ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 334-5886

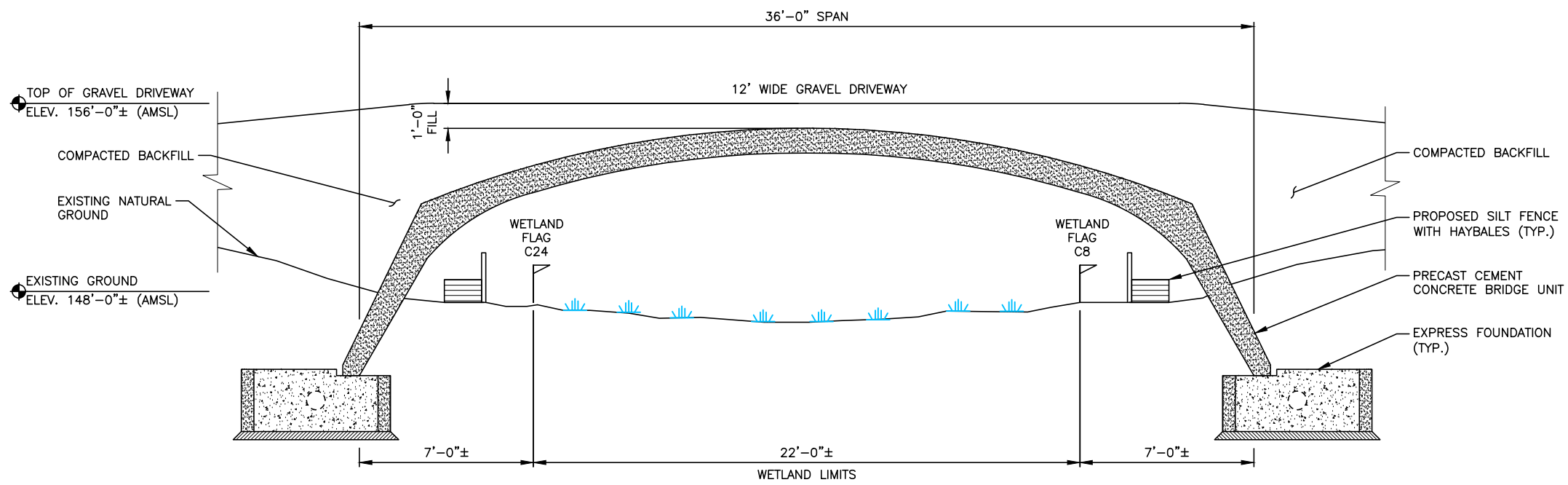
**DETAILS**

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3	08/29/16	CHANGED DRIVEWAY ALIGNMENT	HH	JX



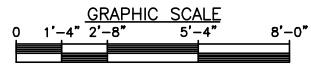
REGISTERED ENGINEER  
FALMOUTH 3 ME  
175 FALMOUTH ROAD  
FALMOUTH, ME 04105

**A-4**



**CON/SPAN BRIDGE WITH EXPRESS FOUNDATIONS**  
 22x34 SCALE: 3/8"=1'-0"  
 11x17 SCALE: 3/16"=1'-0"

1  
A-5



- NOTES:
1. WINGWALLS NOT SHOWN FOR SPAN CLARITY.
  2. FINAL DESIGN DRAWINGS TO BE PROVIDED BY CONSPAN UPON RECEIPT OF SPECIAL PERMIT.
  3. NO WORK SHALL TAKE PLACE WITHIN THE WETLAND.
  4. PROPOSED FOUNDATION SYSTEM WILL BE DESIGNED UPON COMPLETION OF SOIL BORINGS.

**FOR ZONING**

PREPARED FOR:  
  
 400 FRIEBERG PARKWAY  
 WESTBORO, MA 01581  
 (508) 330-3330 TEL

PREPARED BY:  
  
 1400 OSSGOOD STREET  
 BUILDING 20 NORTH, SUITE 3090  
 N. ANDOVER, MA 01845  
 TEL: (978) 557-5553  
 FAX: (978) 334-5886

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3	08/29/16	CHANGED DRIVEWAY ALIGNMENT	HH	JX	DPH	

STATE OF MAINE  
 REGISTERED ENGINEER  
 DERRICK J. CREMER  
 NO. 1752  
  
 FALMOUTH 3 ME  
 175 FALMOUTH ROAD  
 FALMOUTH, ME 04105

**A-5**

## EXHIBIT 8

## CUBE-SS4C215DN2 (w/Proposed Layout)

- Power & Battery Cabinet
- 73”H x 32”W x 32”D
- No AC Load Center*
- 750W, -48VDC Heat Exchanger
- 15 RU Power & Equipment
- 23” Rack Mount (Front & Rear)
- GE Infinity S (400A, AC5, 52 Dist.)
- Optional 50A Rectifiers (max. 8)
- 14 x 20A Bullet Breakers Included
- Battery Compartment – 3 Tray
- Batteries ordered separately
- SAFT Tel.X 180 # 80-94693-02
- 740 lbs. Cabinet only
- 1811 lbs. with SAFT NiCDs
- 4 to 6 Weeks Shipment ARO
- Match with CUBE-PM63912UN1



Equipment Cabinet: CUBE-SS4C215DN2	
RU Position	Item
1	Cable Space
2	Cable Space
3	Cable Space
4	GE Infinity S
5	GE Infinity S
6	GE Infinity S
7	GE Infinity S
8	GE Infinity S
9	GE Ininity S
10	GE Infinity S Rectifiers (1,2,3,4)
11	GE Infinity S Rectifiers (5,6,7,8)
12	GE Infinity S Distribution (1-26)
13	GE Infinity S Distribution (26-52)
14	Empty Space
15	Empty Space
	<b>Battery compartment</b>
1	SAFT 80-94693-02
2	SAFT 80-94693-02
3	SAFT 80-94693-02

*Cabinet shown with optional load center.  
(CUBE SS4C215DB3)



# CUBE-PM63912UN1 (w/Proposed Layout)

- Equipment Only
- 73”H x 32”W x 32”D
- No Load Center
- 10K BTU Air Conditioner
- 39 Rack Units (RU)
- 23” Rack Mount (Front & Rear)
- Site Alarm Aggregation Panel
- Optional RayCap OVPs 2260-10
- 10’ Cable Kit (Power to RayCap)
- Optional 6 port Roxtec KFO seal for hybrid cables.
- Optional Fiber Distribution Panels
- DC Powered LED Cabinet Lights
- Upgraded External Ground Points
- Enhanced Cable Ingress
- 4 to 6 Weeks Shipment ARO
- Match with CUBE-SS4C215DN1



Equipment Cabinet: CUBE-PM63912UN1	
RU Position	Item
1	Cable Space
2	Cable Space
3	Cable Space
4	RayCap OVP #1
5	RayCap OVP #1
6	RayCap OVP #1
7	RayCap OVP #1
8	OVP FDP #1
9	Empty Space
10	RayCap OVP #2
11	RayCap OVP #2
12	RayCap OVP #2
13	RayCap OVP #2
14	OVP FDP#2
15	Empty Space
16	RayCap OVP #3
17	RayCap OVP #3
18	RayCap OVP #3
19	RayCap OVP #3
20	OVP FDP #3
21	Empty Space
22	Empty Space
23	BBU #1
24	BBU #1
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38	Empty Space
39	Empty Space

# Charles Universal Broadband Enclosure (CUBE) PM63912UN3 General Description and Installation

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## 1. GENERAL INTRODUCTION

### 1.1 Document Purpose

This document provides general information for the Charles Industries' Universal Broadband Enclosure CUBE-PM63912UN3 that is not covered in the pad-mount family document LT-PM63912XXX. A front view of the CUBE is shown in Figure 1.

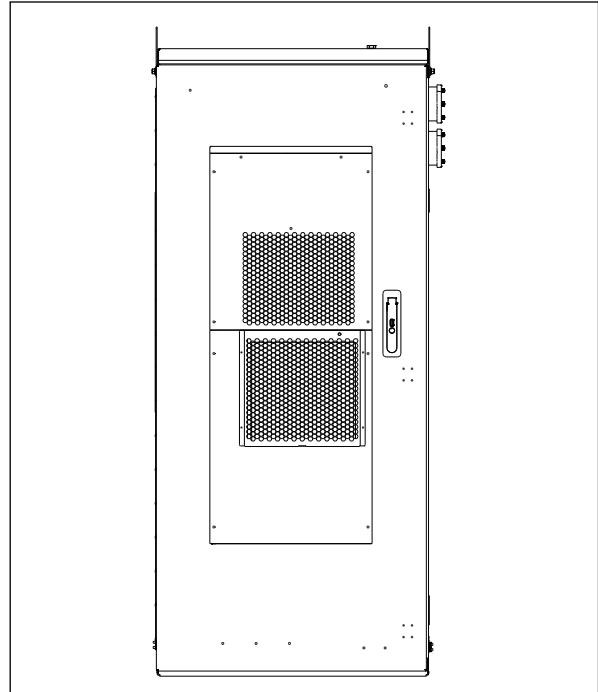
-NOTE-

*Hereafter, the CUBE-PM63912UN3 Charles Universal Broadband Enclosure will be referred to as PM63912UN3 or "CUBE."*

## 2. PRODUCT DESCRIPTION

This section contains information regarding the CUBE's physical design and interior components. Figure 2 shows the main components of the CUBE-PM63912UN3. Additional equipment in this CUBE is the -48VDC power system with controller. Additional features include:

- One 15A GFCI outlet
- 10000 BTU air conditioner
- Removable panel
- GE Infinity S power system with controller
- 39RU of 23" front and rear rack space



**Figure 1 Closed Front View of the CUBE-PM63912UN3**

### 2.1 Wiring the CUBE

After the CUBE is properly mounted in the desired location, install power, ground, and battery connections. Always ground the equipment first, before making any other connections. A basic electrical diagram is shown in Figure 3

### 2.2 Making the Ground Connections

Two 2x8 position ground bars are provided in the equipment compartment. These ground bars should be used for all grounding of internal equipment. There are four external studs with nuts, two on the rear, one on the left side and one on the right of the cabinet that are used for terminating a double-hole lug for earth ground or site ground wire.

#### 2.2.1 AC Voltage Connections

The installer provides the AC voltage connections per company practices and in accordance with all local codes. The two LED lights are wired to the door switch and light when the door is open. The 15A GFCI receptacle is to be connected to a 120VAC power source 15A disconnect. Refer to the electrical diagram in Figure 3.



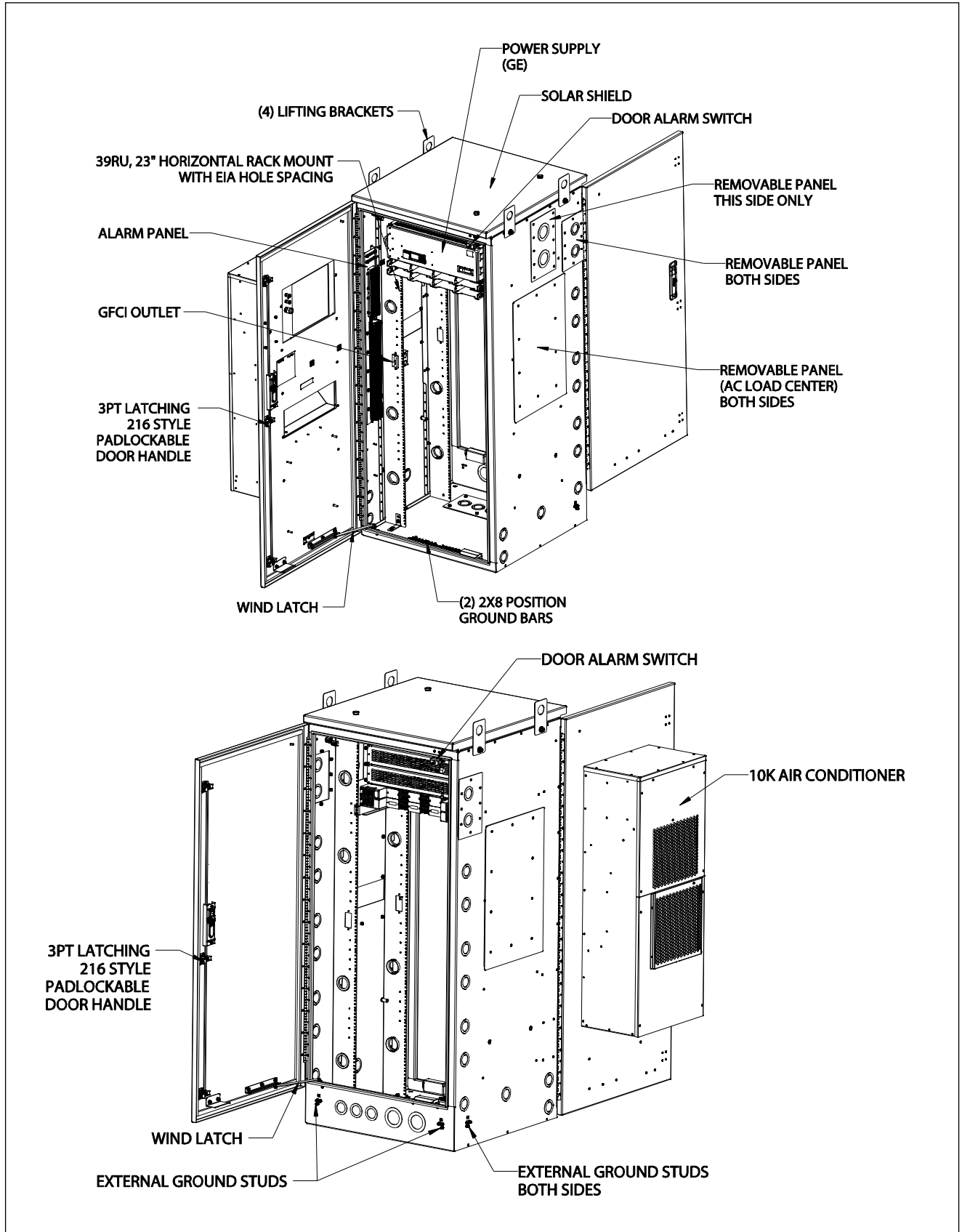
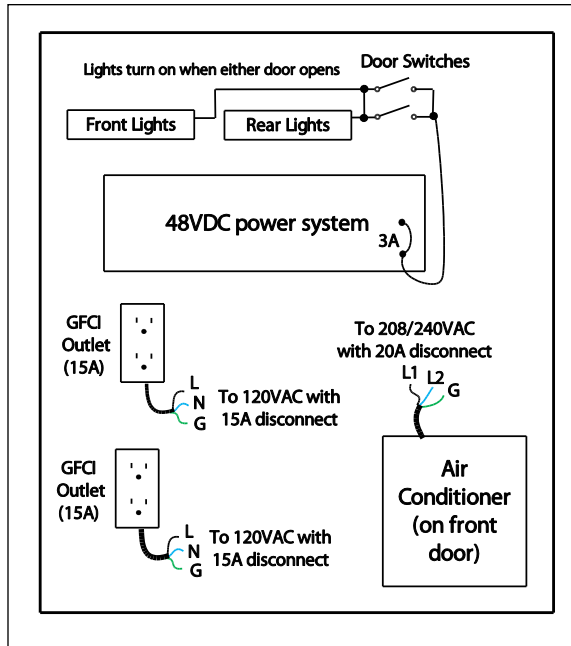


Figure 2 CUBE-PM63912UN3 Components



**Figure 3 Electrical Diagram**

### 2.3 48VDC Power System

The GE Infinity S power system has 8 slots with a primary 48VDC output. The system also has a secondary +24VDC output, which is obtained by using 48 to +24VDC converters (not provided). The power system is also equipped with an alarm cable.

-48VDC distribution includes one 3A load breaker for the two fans (DAC) in the battery compartment and a 15A for the air conditioner.

Refer to the GE power supply documentation located inside the CUBE for information regarding the power supply operation and configuration

#### 2.3.1 Air Conditioner

The 10000 BTU air conditioner is equipped with a 2000W heater and runs off 220VAC. The air conditioner must be connected to a 208/240VAC power source with a 20A disconnect.

The factory default cooling cycle is set at 30°C and can be changed through the controller, which is accessed by removing the eight T25 security torx screws on the top front panel of the unit. The heating cycle is factory set at 5°C.

For further information, refer to the air conditioner documentation that ships with the CUBE.

#### 2.3.2 Overheat Alarm

The thermostat acts as an overheat alarm, and has an adjustable range of +20°C to +80°C. The thermostat provides a normally closed connection and will open if the inside temperature exceeds the thermostat setting. These connections are not terminated by the factory.

#### 2.3.3 LED Lights

The front and rear door switches have two sets of contacts. The primary side contacts are used for turning the front and rear LED lights on and off. The LED lights are connected in parallel so that

opening either door will turn on the lights. The secondary set of contacts is used for intrusion alarms, which are covered in the alarm terminal panel section.

#### 2.3.4 Alarm Terminal Panel

There is a 32-position alarm terminal panel where all alarm wiring is connected. Refer to Table 2 for a diagram of all alarms and block connections.

#### 2.3.5 Fiber and Copper Entry

Cable entry is accommodated through multiple knockouts on the sides, rear and bottom of the cabinet. Each side of the cabinet has a removable Roxtec cable entry port panel, a removable Roxtec KFO cable entry panel, and ten 1.75"/2.50" knockouts along the back edge and bottom. The opposite side has the same configuration except that it does not have the removable Roxtec cable entry port panel. There are three 1.75"/2.50" and two 3.60"/2.5" knockouts along the bottom back under the removable rear panel, and five cable ports in a removable panel in the bottom of the cabinet.

### 2.4 Verifying the Installation

Verify that earth ground and all grounding and bonding is complete and functional. After verifying that all installer connections are secure and complete, apply AC voltage.

## 3. TECHNICAL ASSISTANCE AND REPAIR SERVICE

For questions on product repair or if technical assistance is required, contact Charles Technical Support at:

847-806-8500

800-607-8500

847-806-8556 (FAX)

[techserv@charlesindustries.com](mailto:techserv@charlesindustries.com) (email)

[http://www.charlesindustries.com/main/tech_support.htm](http://www.charlesindustries.com/main/tech_support.htm)

## 4. WARRANTY & CUSTOMER SERVICE

Charles Industries, Ltd. offers a one-year warranty on the CUBE product. The Charles warranty is limited to the operation of the CUBE hardware as described in this documentation and does not cover equipment which may be integrated by a third party. The terms and conditions applicable to any specific sale of product shall be defined in the resulting sales contract. For questions on warranty or other customer service assistance, contact your Charles Customer Service Representative at:

847-806-6300

847-806-6653 (FAX)

[mktserv@charlesindustries.com](mailto:mktserv@charlesindustries.com) (email)

[http://www.charlesindustries.com/main/telecom_sales_support.htm](http://www.charlesindustries.com/main/telecom_sales_support.htm)

**5. SPECIFICATIONS**

**5.1 Regulatory Specifications**

- Designed to be compliant to GR-487.

**5.2 Physical Specifications**

The physical specifications are shown in Table 2.

Category	
Dimensions and weight	74"Hx32"W x 32"D 535 lbs. as shipped
23" Equipment Rack Space and Hole Spacing	68" (39 RU) EIA spacing with tapped 12-24
Color	Off-White
Material	.125" Welded Aluminum
Maximum Heat Dissipation	2900W
Electric Outlet	One 15A GFCI outlet
10000 BTU Air Conditioner with 2000W Heater	Dantherm #1A/CT-B1000
-48VDC power system with controller	GE Infinity S: NES4824-23-AC5-PS8-DC1E
Bonding and Grounding	Two 2x8 position ground bars
Cable Entrance	Refer to Section 2.4
Operating Temp. Range, Inside Enclosure	-40° to +149°F, -40° to 65°C
Operating Temp. Range, Outside Enclosure	-40° to +115°F, -40° to 46°C
Humidity	0 to 95% (non-condensing)
Altitude	Up to 2000 meters (6560')

**Table 1 – PM63912UN3 Physical Specifications**

**6. MACRO ALARM TERMINAL WIRING TABLE**

Alarm Number	Pos 1	LABEL	Pos 2	LABEL	Description	Wire 1	Wire 2
CC1	1	CC1	2	RET1	Battery Discharge	WHT	WHT/BLK
CC2	3	CC2	4	RET2	Commercial Power Failure		
CC3	5	CC3	6	RET3	Door Intrusion	WHT	ORG
CC4	7	CC4	8	RET4	Tech on Site		
CC5	9	CC5	10	RET5	Generator Failure		
CC6	11	CC6	12	RET6	Generator Low Fuel		
CC7	13	CC7	14	RET7	Generator Running		
CC8	15	CC8	16	RET8	High Temp	WHT	GRN
CC9	17	CC9	18	RET9	Inverter Failure		
CC10	19	CC10	20	RET10	Multiple Rectifier Failure	WHI/RED	RED/WHT
CC11	21	CC11	22	RET11	Rectifier Failure	GRN/WHT	RED/GRN
CC12	23	CC12	24	RET12	Smoke/Fire		
CC13	25	CC13	26	RET13	Smoke/Fire Detector Failure		
CC14	27	CC14	28	RET14	Surge Suppressor Lightning Arrestor		
CC15	29	CC15	30	RET15	Tower Light		
CC16	31	CC16	32	RET16	Tower Light Beacon		
CC17	33	CC17	34	RET17	Tower Light Strobe		
CC18	35	CC18	36	RET18	Tower Light Power Failure		
CC19	37	CC19	38	RET19	Tower Light (side)		
CC20	39	CC20	40	RET20	Converter Failure		
CC21	41	CC21	42	RET21	Tower Mounted Amplifier		
CC22	43	CC22	44	RET22	Explosive Gas		
CC23	45	CC23	46	RET23	2 nd HVAC Compressor Run		
CC24	47	CC24	48	RET24	Heat Exchanger Failure	WHT	GRN
CC25	49	CC25	50	RET25	HVAC-2 Failure		
CC26	51	CC26	52	RET26	Low Temp		
CC27	53	CC27	54	RET27	AC Power Failure	ORG/RED	RED
CC28	55	CC28	56	RET28	Microwave Major = Critical		
CC29	57	CC29	58	RET29	Microwave Minor = Minor		
CC30	59	CC30	60	RET30	RRH Power Failure		
CC31	61	CC31	62	RET31	RRH Humidity Alarm		
CC32	63	CC32	64	RET32	RRH Intrusion Alarm		

**Table 2 Macro Alarm Wiring**

Key:

Base CUBE

GE Infinity A Power System Alarms:

## EXHIBIT 9

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## RF Report

Proposed Wireless Facility  
175 Falmouth Road  
Falmouth, ME 04105



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July 25, 2016

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- Attachment A: Falmouth 3 – Existing 700 MHz LTE Coverage
- Attachment B: Falmouth 3 – Existing/Approved/Planned 700 MHz LTE Coverage
- Attachment C: Falmouth 3 – 700 MHz LTE Coverage with Proposed Site at 87 ft
- Attachment D: Falmouth 3 – 700 MHz LTE Coverage with Proposed Site at 107 ft
- Attachment E: Falmouth 3 – Existing/Approved/Planned 700 MHz LTE Sector Footprints
- Attachment F: Falmouth 3 – 700 MHz LTE Sector Footprints with Proposed Site at 87 ft
- Attachment G: Falmouth 3 – 700 MHz LTE Sector Footprints with Proposed Site at 107 ft
- Attachment H: Falmouth 3 – Area Terrain Map

## 1. Overview

This RF Report has been prepared on behalf of Verizon Wireless in support of its application to the Town of Falmouth for the installation and operation of a wireless facility located at 175 Falmouth Road in Falmouth, ME. The proposed facility consists of a ground based equipment shelter and a proposed monopole tower.

This report concludes that the proposed site is needed to fill in coverage gaps and provide capacity relief to sections of Falmouth in order to improve deficient service areas along the Falmouth Spur, Falmouth Road, and the surrounding roads, neighborhoods, and business/retail/community areas within the proximity of the proposed site.

Included in this report is: a brief summary of the site's objectives, maps showing Verizon Wireless' current network plan, and predicted Radio Frequency coverage of the subject site and the surrounding sites in Verizon Wireless' network.

## 2. Introduction

Verizon Wireless provides digital voice and data communications services using 3rd Generation (3G) CDMA/EVDO technology in the Cellular (800 MHz) and PCS (1900 MHz) frequency bands, and is in the midst of deploying advanced 4th Generation (4G) voice and data services over LTE technology in the 700 MHz, PCS, and AWS (2100 MHz) frequency bands as allocated by the FCC. These networks are used by mobile devices for fast web browsing, media streaming, and other applications that require broadband connections. The mobile devices that benefit from these advanced networks are not limited to basic handheld phones, but also include devices such as smartphones, PDA's, tablets, and laptop air-cards. With the evolving rollout of 4G LTE services and devices, Verizon Wireless customers will have even faster connections to people, information, and entertainment.

As explained within this report, Verizon Wireless has identified the need to add a new facility to its existing network of sites in the Falmouth area to improve capacity and coverage to a significant gap in service that now exists in Falmouth, in order to support reliable communications and meet the growing demand in the area.

To maintain a reliable and robust communications system for the individuals, businesses, public safety workers and others who use its network, Verizon Wireless deploys a network of cell sites (also called wireless communications facilities) throughout the areas in which it is licensed to provide service. These cell sites consist of antennas mounted on structures, such as buildings and towers, supported by radio and power equipment. The receivers and transmitters at each of these sites process signals within a limited geographic area known as a "cell."

Mobile subscriber handsets and wireless devices operate by transmitting and receiving low power radio frequency signals to and from these cell sites. Handset signals that reach the cell site are transferred through land lines (or other means of backhaul transport) and routed to their destinations by sophisticated electronic equipment. In order for Verizon Wireless' network to function effectively, there must be adequate overlapping coverage between the "serving cell" and adjoining cells. This not only allows a user to access the network initially, but also allows for the transfer or "hand-off" of calls and data transmissions from one cell to another, and prevents unintended disconnections or "dropped calls."



Verizon Wireless' antennas also must be located high enough above ground level to allow transmission (a.k.a. propagation) of the radio frequency signals above trees, buildings and other natural or man-made structures that may obstruct or diminish the signals. Areas without adequate radio frequency coverage have substandard service, characterized by dropped and blocked calls, slow data connections, or no wireless service at all, and are commonly referred to as coverage gaps.

The size of the area potentially served by each cell site depends on several factors including the number of antennas used, the height at which the antennas are deployed, the topography of the surrounding land, vegetative cover, and natural or man-made obstructions in the area. The actual service area at any given time also depends on the number of customers who are on the network in range of that cell site. As customers move throughout the service area, the transmission from the phone or other device is automatically transferred to the Verizon Wireless facility with the best reception, without interruption in service, provided that there is overlapping coverage between the cells.

Each cell site must be primarily designed to strike a balance between the overall geographic coverage area it will serve, and the site's capacity to support the usage within the coverage footprint. In rural areas, cell sites are generally designed to have broader coverage footprints because the potential traffic is sparser and distributed over a larger area. In more densely populated suburban and urban environments, the capacity to handle calls and data transmissions is of increasing concern, and cell sites must limit their coverage footprint to an area where the offered network traffic can be supported by the radio equipment and resources. Due to the aggressive historical and projected growth of mobile usage, particularly for mobile data (49% in 2015-2016, 42% CAGR 2015-2020 in North America)¹, instances arise where the usage demand can no longer be supported by the site(s) serving an area, and new facilities must be integrated to provide capacity relief to the overloaded sites.

We have concluded that by installing the proposed wireless communication facility at 175 Falmouth Road, Verizon Wireless will be able to fill the substantial coverage gap that it now experiences, and provide improved coverage and capacity to residents, businesses, and traffic corridors within sections of Falmouth that are currently located within deficient service areas of Verizon Wireless' network.

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¹ "Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2015-2020", February 3, 2016, Cisco Systems, Inc. <http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/mobile-white-paper-c11-520862.html>

### 3. The Proposed Facility

As shown on the plans submitted with the application, Verizon Wireless' proposal consists principally of the following elements:

- 1) A monopole tower within the proposed 75'-0" x 75'-0" fenced equipment compound containing a 11'-6" x 26'-0" equipment shelter with internal back-up power generator, and power/telco/fiber utility connections;
- 2) Twelve (12) panel antennas (four per sector), mounted on the proposed monopole tower;
- 3) Remote Radio Heads (RRH) with accessory junction boxes and surge suppressors mounted alongside the antennas;
- 4) A liquid propane tank, on a 4'-0" x 8'-0" concrete pad within the fenced compound;
- 5) An ice bridge from the proposed equipment shelter to the tower in order to protect cabling between the equipment cabinets and the cable entry port located near the base of the tower.

## 4. Coverage and Capacity Objectives

As mentioned above, Verizon Wireless is in the process of rolling out its 4G LTE high-speed wireless broadband system in the 700 MHz, PCS, and AWS frequency bands, in accordance with its licenses from the FCC. In order to expand and enhance their wireless services throughout New England, Verizon Wireless must fill in existing coverage gaps and address capacity, interference, and high-speed broadband issues. As part of this effort, Verizon Wireless has determined that insufficient network capacity and significant coverage gaps exist in and around sections of the Town of Falmouth, ME, as described further below.

Verizon Wireless currently operates wireless facilities, similar to the proposed facility, within the surrounding cities/towns in the vicinity. Due in large part to the distances between the existing sites, the intervening topography, and volume of user traffic in the area, these existing facilities do not provide sufficient coverage and capacity to portions of Falmouth. Specifically, Verizon Wireless determined that much of Falmouth is without reliable service in the following areas and town roads², including but not limited to:

- Falmouth Spur, between the Falmouth Road overpass and the Route 9 (Middle Road) overpass;
- Falmouth Road, between Woodville Road and Route 9;
  - Serves 10,990 vehicles per day, as measured northeast of Allen Avenue (2013);
- Woodlands Drive and the Woodlands Golf Club development;
- The surrounding roads, neighborhoods, and business/retail/community areas within the proximity of the proposed site.

The proposed site located at 175 Falmouth Road (“Falmouth 3”) is needed to fill in these targeted capacity and coverage gaps, in order to improve network quality and reliability for Verizon Wireless subscribers traveling along these roads, as well as to the numerous residences, businesses, and visitors in this area.

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² Traffic counts are sourced from the Maine Department of Transportation, Traffic Volume Counts 2015 Annual Report.

## 5. Site Search and Selection Process

To find a site that provides acceptable service, provides adequate capacity relief, and fills the gaps in coverage, computer modeling software is used to define a search area. The search ring identifies the area within which a site could be located (assuming that sufficient height is used) that would have a high probability of addressing the significant coverage gap and meeting the capacity objectives established by the Verizon Wireless RF (Radio Frequency) engineers.

Once a search ring is determined, Verizon Wireless' real estate specialists search within the proximity of the defined area for existing buildings, towers, and other structures of sufficient height that would meet the defined objectives. If none are found, then the focus shifts to "raw land" sites. A suitable site must satisfy the technical requirements identified by the RF engineers, must be available for lease, and must have access to a road and be otherwise suitable for constructing a cell site of the required size and height. Every effort is made to use existing structures before pursuing a "raw land" build to minimize the number of towers throughout the towns being serviced.

After the search of the area had been completed, Verizon Wireless determined that there are no existing structures suitable for collocation³ with respect to its network requirements, and that constructing a wireless communications facility at 175 Falmouth Road is the best solution to address the targeted coverage and capacity objectives. Verizon Wireless seeks conditional rezoning of the parcel to permit a so-called "Tier III" facility at the site. The Town's ordinance provides that such a rezoning is permissible provided, in relevant part, that it is impractical to meet the coverage and/or capacity objectives with some combination of installations on existing structures within the coverage area. As noted herein, Verizon Wireless cannot provide adequate service without construction of a new facility.

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³ Verizon investigated both the proposed tower at Falmouth Town Hall and the existing tower at the DPW yard and were unable to secure a lease agreement at either location. As such, a technical analysis of these locations has not been included in this report.

## 6. Pertinent Site Data

Table 1 below details the site-specific information for the existing, approved, planned, and proposed Verizon Wireless sites used to perform the coverage analysis and generate the coverage plots provided herein.

Site Name	Address	City/State	Location		Structure Type	Antenna Height (ft AGL)	Status
			Latitude	Longitude			
Cumberland	Range Way	Cumberland, ME	43.7637	-70.2298	Lattice	148	On-Air
Cumberland 2	60 Val Halla Road	Cumberland, ME	43.7957	-70.2411	Monopole	97	Approved
Falmouth 4	356r US-1	Falmouth, ME	43.7363	-70.2264	Monopole	67	Planned
Falmouth N	Victoria Lane	Falmouth, ME	43.7578	-70.3205	Guyed	177	On-Air
Westbrook	115 Hardy Road	Falmouth, ME	43.7439	-70.3330	Guyed	187	On-Air
Portland 6	Church Avenue	Peaks Island, ME	43.6608	-70.1958	Steeple	36.7	On-Air
Falmouth	525 Presumpscot Street	Portland, ME	43.6996	-70.2585	Monopole	150	On-Air
Monument Sq	1 Monument Square	Portland, ME	43.6575	-70.2583	Rooftop	150.5	On-Air
Portland 2	202 Woodford Street	Portland, ME	43.6707	-70.2877	Steeple	69	On-Air
Portland 3	476 Summit Street	Portland, ME	43.7171	-70.2957	Stealth Pole	95	Approved
Portland 5	52 Canco Road	Portland, ME	43.6817	-70.2870	Monopole	119	On-Air
Portland N	220 Riverside Industrial Parkway	Portland, ME	43.7060	-70.3107	Guyed	272	On-Air
Portland 4	12 Saunders Way	Westbrook, ME	43.6739	-70.3417	Lattice	120	On-Air
Westbrook Dt	Off Bridge Street	Westbrook, ME	43.6968	-70.3621	Guyed	110	On-Air
Falmouth 3	175 Falmouth Road	Falmouth, ME	43.7283	-70.2627	Monopole	87	Proposed

**Table 1: Verizon Wireless Site Information Used in Coverage Analysis⁴**

⁴ Some sites listed in this table are outside the plot view but are included for completeness of information.

## 7. Coverage Analysis and Propagation Plots

The signal propagation plots provided in this report show coverage for the 700 MHz frequency range and were produced using deciBel Planner™, a Windows-based RF propagation computer modeling program and network planning tool. The software takes into account the geographical features of an area, land cover, antenna models, antenna heights, RF transmitting power and receiver thresholds to predict coverage and other related RF parameters used in site design and network expansion.

The plots included as attachments show coverage based on RSRP signal strengths of -90 dBm, -95 dBm, and -100 dBm. All other areas (depicted in white) fall within coverage areas characterized by poor service quality, low data throughput, and the substantial likelihood of unreliable service.

Attachments A - H are discussed below:

**Attachment A** titled “Falmouth 3 – Existing 700 MHz LTE Coverage” shows the coverage provided to areas of Falmouth from the “On-Air” sites listed in Table 1. “On-Air” sites are defined as existing Verizon Wireless facilities. The green areas represent the minimum desired level of coverage for the more developed areas or neighborhoods, whereas the orange areas represent a slightly lower signal strength sufficient for the lesser developed, or roadway only areas. The deficient areas of coverage are defined by the unshaded white areas, and to a lesser degree, the grey areas.

**Attachment B** titled “Falmouth 3 – Existing/Approved/Planned 700 MHz LTE Coverage” shows the coverage provided to areas of Falmouth from the “On-Air,” “Approved,” and “Planned” sites listed in Table 1. “Approved” sites are defined as those that are in the final stages of permitting or construction and are expected to be turned on-air in the near future. “Planned” sites are those which have either started or are expected to begin the permitting process in the near future. As shown in this plot and described in the Coverage and Capacity Objectives section of this report, much of Falmouth will continue to be in an area of deficient coverage. These coverage gaps include the Falmouth Spur, Falmouth Road, and the surrounding roads, neighborhoods, and business/retail/community areas within the proximity of the proposed site.

**Attachment C** titled “Falmouth 3 - 700 MHz LTE Coverage with Proposed Site at 87 ft” shows the composite coverage with the proposed “Falmouth 3” facility. As shown by the additional areas of coverage, the proposed facility will provide coverage to:

- ~ 0.7 mi along the Falmouth Spur;
- ~ 0.4 mi along Falmouth Road;
- ~ 0.5 mi along Woodlands Drive;
- ~ 350 (-90 dBm) to 900 (-95 dBm) new residents⁵ within the proximity of the proposed facility;
- The surrounding roads, neighborhoods, and business/retail/community areas within the proximity of the proposed site.

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⁵ Residential population counts are based upon the 2010 U.S. Census data.

**Attachment D** titled “Falmouth 3 - 700 MHz LTE Coverage with Proposed Site at 107 ft” shows the composite coverage with the proposed “Falmouth 3” facility at a centerline height of 107 ft AGL (representing a 110 ft tower). As evident by the additional areas of coverage:

- ~ 1.5 mi along the Falmouth Spur;
- ~ 1.6 mi along Falmouth Road;
- ~ 1.8 mi along Woodlands Drive;
- ~ 1,250 (-90 dBm) to 2,500 (-95 dBm) new residents within the proximity of the proposed facility;
- The surrounding roads, neighborhoods, and business/retail/community areas within the proximity of the proposed site.

This modest tower height increase of 20’ provides substantial improvement to the area in comparison to that shown in Attachment C. This benefit is due to the additional antenna height and the proposed facility’s location relative to the area topography and surrounding tree clutter in the area.

**Attachment E** titled “Falmouth 3 – Existing/Approved/Planned 700 MHz LTE Sector Footprints” depicts the areas primarily served by the sectors (a.k.a. signal “footprints”) of the existing/approved/planned Verizon Wireless sites in the area, which are shown by the unique color for each particular sector of interest. For clarity, all other sectors of less interest with respect to the proposed site are shown in grey. As demand for wireless voice and data services continues to grow, Verizon Wireless manages the footprint of each sector so that it can support the demand within the area it is primarily serving. In addition to improving coverage to the area, the proposed site is also needed to serve existing and anticipated demand in the vicinity and thereby offload some of the burden experienced by the surrounding sites. In that way, those sites will be able to more adequately serve the demand for service in the areas nearer to those surrounding sites. Please note that the outer parts of each sector footprint include areas that presently have signal strength below the targeted value required for reliable service to Verizon Wireless’ customers. The fact that low-level signal is capable of reaching these areas does not mean that these areas experience adequate coverage. These unreliable areas of low signal level impose a significant capacity burden on the sites primarily serving the area.

**Attachment F** titled “Falmouth 3 - 700 MHz LTE Sector Footprints with Proposed Site at 87 ft” shows the composite coverage with the overall footprint of the proposed facility in dark green. As shown in this map, the proposed “Falmouth 3” facility is an effective solution to provide the necessary capacity relief to the area, particularly to the overloaded “Falmouth” alpha sector (red), the “Portland N” alpha sector (orange), and the “Westbrook” beta sector (yellow). The proposed facility is centrally located in the area of deficient coverage making it particularly suited to distribute the traffic load across multiple sectors, and provide a dominant server to this pocket of heavy usage. Table 2 below details the capacity relief based on the sector footprints shown in Attachments E and F.

Sector	Current			With "Falmouth 3" at 87 ft			Offload Summary		
	Employee Pops	Residential Pops	Area (mi ² )	Employee Pops	Residential Pops	Area (mi ² )	Total Employee Pops Offloaded	Total Residential Pops Offloaded	Area Offloaded (mi ² /%)
Falmouth Alpha	732	1830	2.61	566	1346	1.83	166 ( 22.7%)	484 ( 26.4%)	0.78 ( 29.9%)
Portland N Alpha	3321	4952	3.34	3259	4446	2.74	62 ( 1.9%)	506 ( 10.2%)	0.6 ( 18%)
Westbrook Beta	351	1375	2.49	285	828	1.96	66 ( 18.8%)	547 ( 39.8%)	0.53 ( 21.3%)

**Table 2: Capacity Offload Summary (87 ft)⁶**

**Attachment G** titled “Falmouth 3 - 700 MHz LTE Sector Footprints with Proposed Site at 107 ft” shows the composite coverage with the overall footprint of the proposed facility in dark green, and at a centerline height of 107 ft AGL (representing a 110 ft tower). As shown in this map, the additional height at the proposed facility provides a larger footprint allowing it to offload the surrounding sites to a greater extent than that of a 90’ tower. Table 3 below details the capacity relief based on the sector footprints shown in Attachments E and G.

Sector	Current			With "Falmouth 3" at 107 ft			Offload Summary		
	Employee Pops	Residential Pops	Area (mi ² )	Employee Pops	Residential Pops	Area (mi ² )	Total Employee Pops Offloaded	Total Residential Pops Offloaded	Area Offloaded (mi ² /%)
Falmouth Alpha	732	1830	2.61	361	1023	1.41	371 ( 50.7%)	807 ( 44.1%)	1.2 ( 46%)
Portland N Alpha	3321	4952	3.34	2375	4208	2.13	946 ( 28.5%)	744 ( 15%)	1.21 ( 36.2%)
Westbrook Beta	351	1375	2.49	216	580	1.66	135 ( 38.5%)	795 ( 57.8%)	0.83 ( 33.3%)

**Table 3: Capacity Offload Summary (107 ft)**

**Attachment H** titled “Falmouth 3 – Area Terrain Map” details the terrain features around the proposed “Falmouth 3” site. These terrain features play a key role in dictating both the unique coverage areas served from a given location, and the coverage gaps within the network. This map is included to provide a visual representation of the terrain variations that must be considered when determining the appropriate location and design of a proposed wireless facility. The blue and green shades correspond to lower elevations, whereas the orange, red, and grey shades indicate higher elevations.

⁶ Residential population counts are based upon the 2010 U.S. Census data. Employee population counts are based upon the 2011 U.S. Census Bureau LEHD database. Please note that neither includes visitor, or vehicular counts in the area.



## 8. Certification of Non-Interference

Verizon Wireless certifies that the proposed facility will not cause interference to any lawfully operating emergency communication system, television, telephone or radio, in the surrounding area. The FCC has licensed Verizon Wireless to transmit and receive in the Upper C-Block of the 700 MHz band, B Block of the Cellular (850 MHz) band, the E, F, and C5 Blocks of the PCS (1900 MHz) band, and the B and F Blocks of the AWS (2100 MHz) band of the RF spectrum. As a condition of the FCC licenses, Verizon Wireless is prohibited from interfering with other licensed devices that are being operated in a lawful manner. Furthermore, no emergency communication system, television, telephone, or radio is licensed to operate on these frequencies, and therefore interference is highly unlikely.

## 9. Summary

In undertaking its build-out of 4G LTE service in Cumberland County, Verizon Wireless has determined that an additional facility is needed to provide reliable service and adequate capacity throughout areas of the Town of Falmouth, ME. Verizon Wireless determined that constructing a wireless communications facility at 175 Falmouth Road in Falmouth will provide additional coverage and capacity needed in the targeted coverage areas including key roadways such as the Falmouth Spur, Falmouth Road, and the surrounding roads, neighborhoods, and business/retail/community areas within the proximity of the proposed site. Without the installation of the proposed site, Verizon Wireless will be unable to improve and expand their existing 4G LTE wireless communication services in this area of Falmouth; therefore, Verizon Wireless respectfully requests that the Town of Falmouth act favorably upon the proposed facility.

## 10. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate.

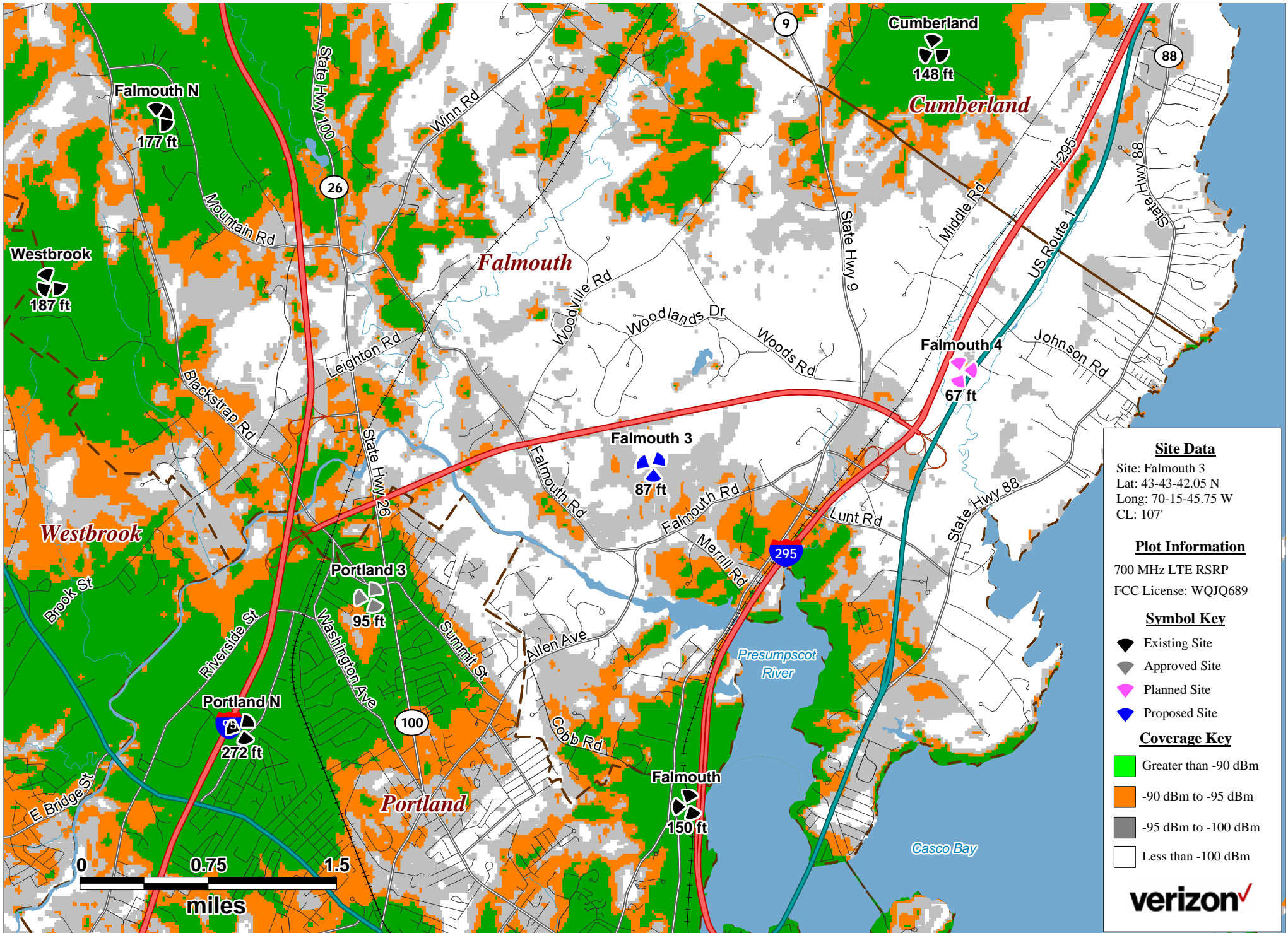


Keith Vellante  
RF Engineer  
C Squared Systems, LLC

July 25, 2016  
Date

## 11. Attachments

**Attachment A:**  
**Falmouth 3 - Existing 700 MHz LTE Coverage**



**Site Data**  
 Site: Falmouth 3  
 Lat: 43-43-42.05 N  
 Long: 70-15-45.75 W  
 CL: 107'

**Plot Information**  
 700 MHz LTE RSRP  
 FCC License: WQJQ689

**Symbol Key**

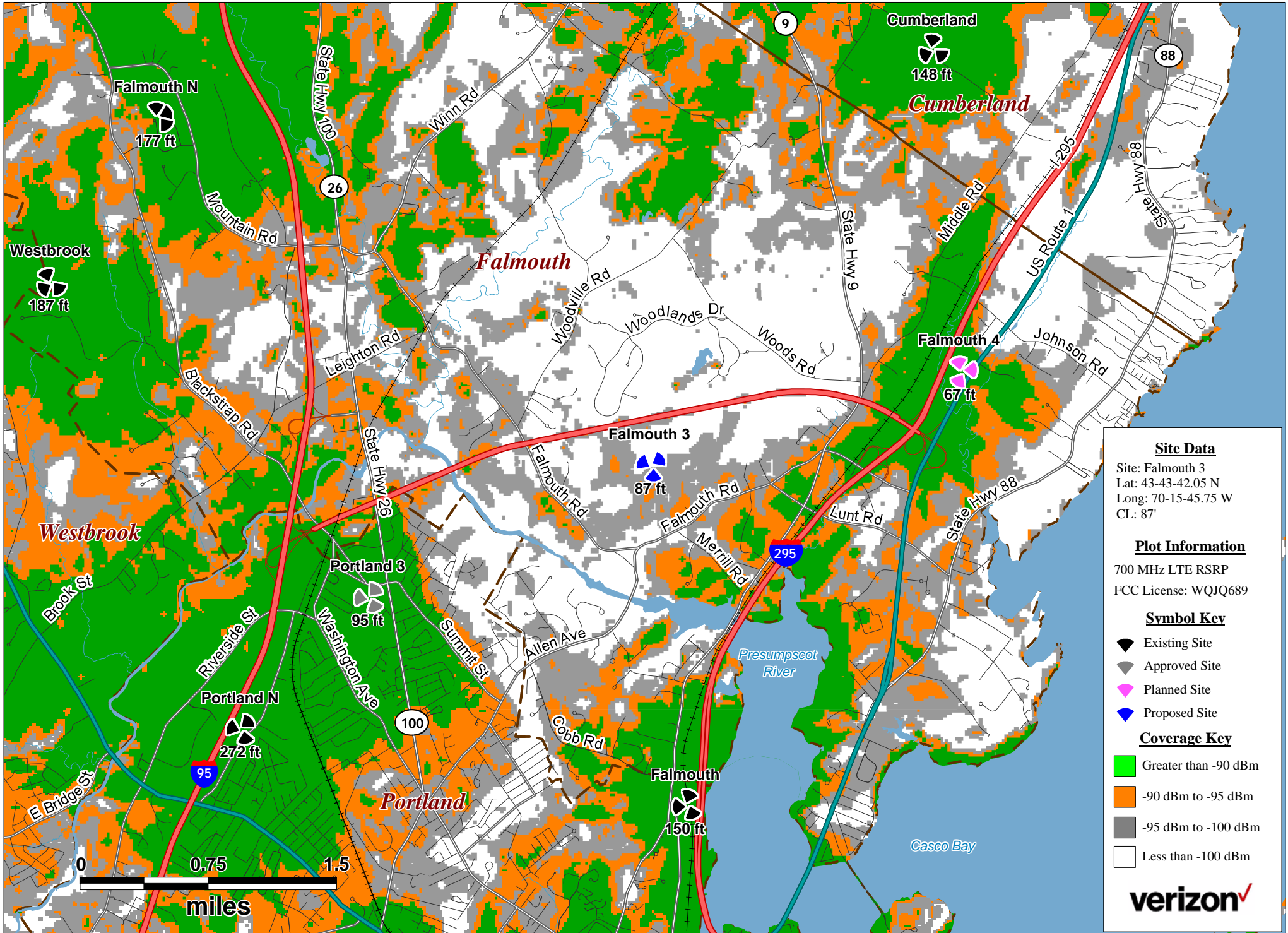
- ▲ Existing Site
- ▲ Approved Site
- ▲ Planned Site
- ▲ Proposed Site

**Coverage Key**

- Greater than -90 dBm
- 90 dBm to -95 dBm
- 95 dBm to -100 dBm
- Less than -100 dBm

**verizon**

**Attachment B:  
Falmouth 3 - Existing/Approved/Planned 700 MHz LTE Coverage**



**Site Data**  
 Site: Falmouth 3  
 Lat: 43-43-42.05 N  
 Long: 70-15-45.75 W  
 CL: 87'

**Plot Information**  
 700 MHz LTE RSRP  
 FCC License: WQJQ689

**Symbol Key**

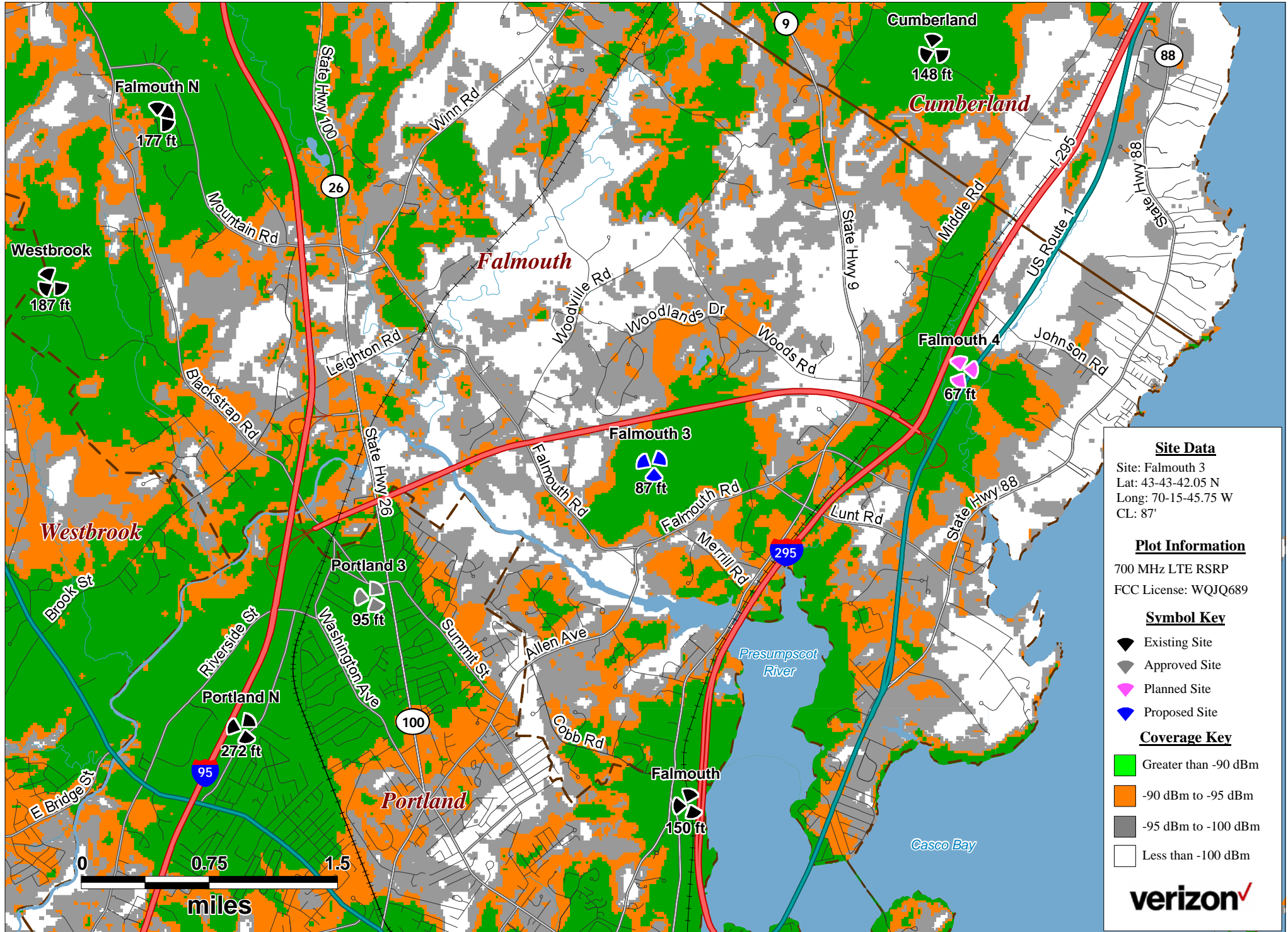
- Existing Site
- Approved Site
- Planned Site
- Proposed Site

**Coverage Key**

- Greater than -90 dBm
- 90 dBm to -95 dBm
- 95 dBm to -100 dBm
- Less than -100 dBm

**verizon**

**Attachment C:**  
**Falmouth 3 - 700 MHz LTE Coverage with Proposed Site at 87 ft**



**Site Data**  
 Site: Falmouth 3  
 Lat: 43-43-42.05 N  
 Long: 70-15-45.75 W  
 CL: 87'

**Plot Information**  
 700 MHz LTE RSRP  
 FCC License: WQJQ689

**Symbol Key**

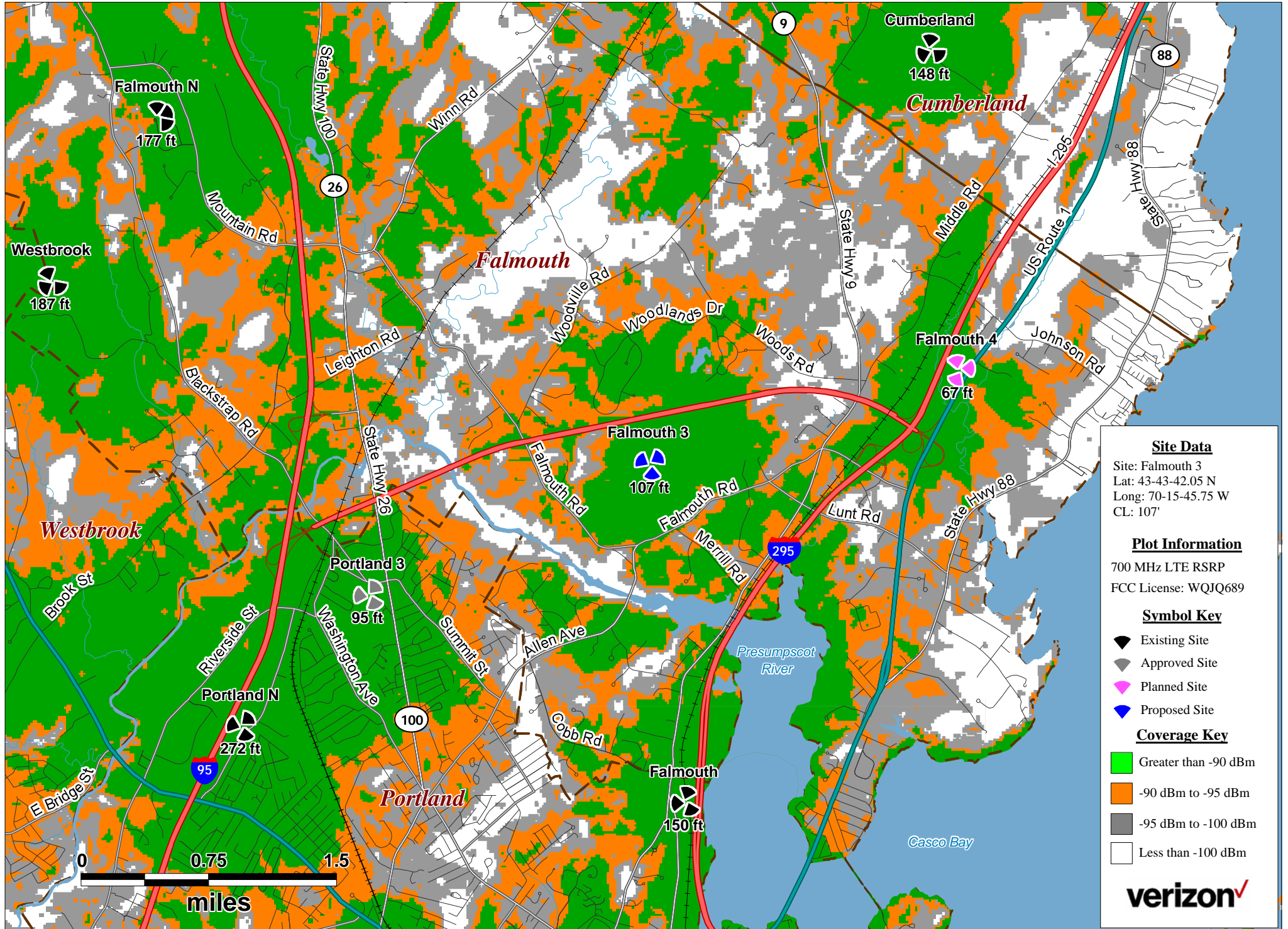
- Existing Site
- Approved Site
- Planned Site
- Proposed Site

**Coverage Key**

- Greater than -90 dBm
- 90 dBm to -95 dBm
- 95 dBm to -100 dBm
- Less than -100 dBm

**verizon**

**Attachment D:**  
**Falmouth 3 - 700 MHz LTE Coverage with Proposed Site at 107 ft**



**Site Data**  
 Site: Falmouth 3  
 Lat: 43-43-42.05 N  
 Long: 70-15-45.75 W  
 CL: 107'

**Plot Information**  
 700 MHz LTE RSRP  
 FCC License: WQJQ689

**Symbol Key**

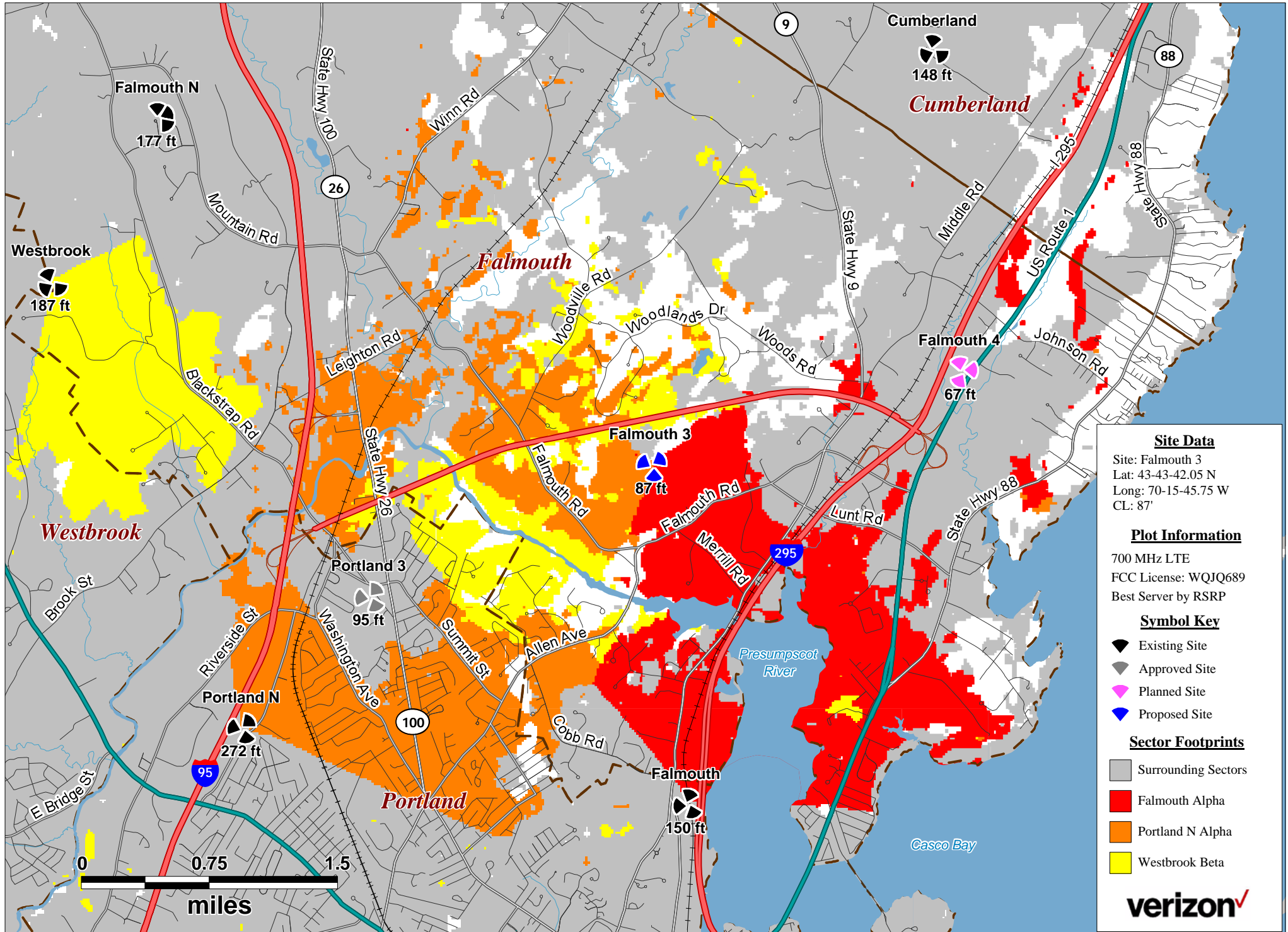
- ▲ Existing Site
- ▲ Approved Site
- ▲ Planned Site
- ▲ Proposed Site

**Coverage Key**

- Greater than -90 dBm
- 90 dBm to -95 dBm
- 95 dBm to -100 dBm
- Less than -100 dBm

**verizon**

**Attachment E:  
Falmouth 3 - Existing/Approved/Planned 700 MHz LTE Sector Footprints**



**Site Data**  
 Site: Falmouth 3  
 Lat: 43-43-42.05 N  
 Long: 70-15-45.75 W  
 CL: 87'

**Plot Information**  
 700 MHz LTE  
 FCC License: WQJQ689  
 Best Server by RSRP

**Symbol Key**

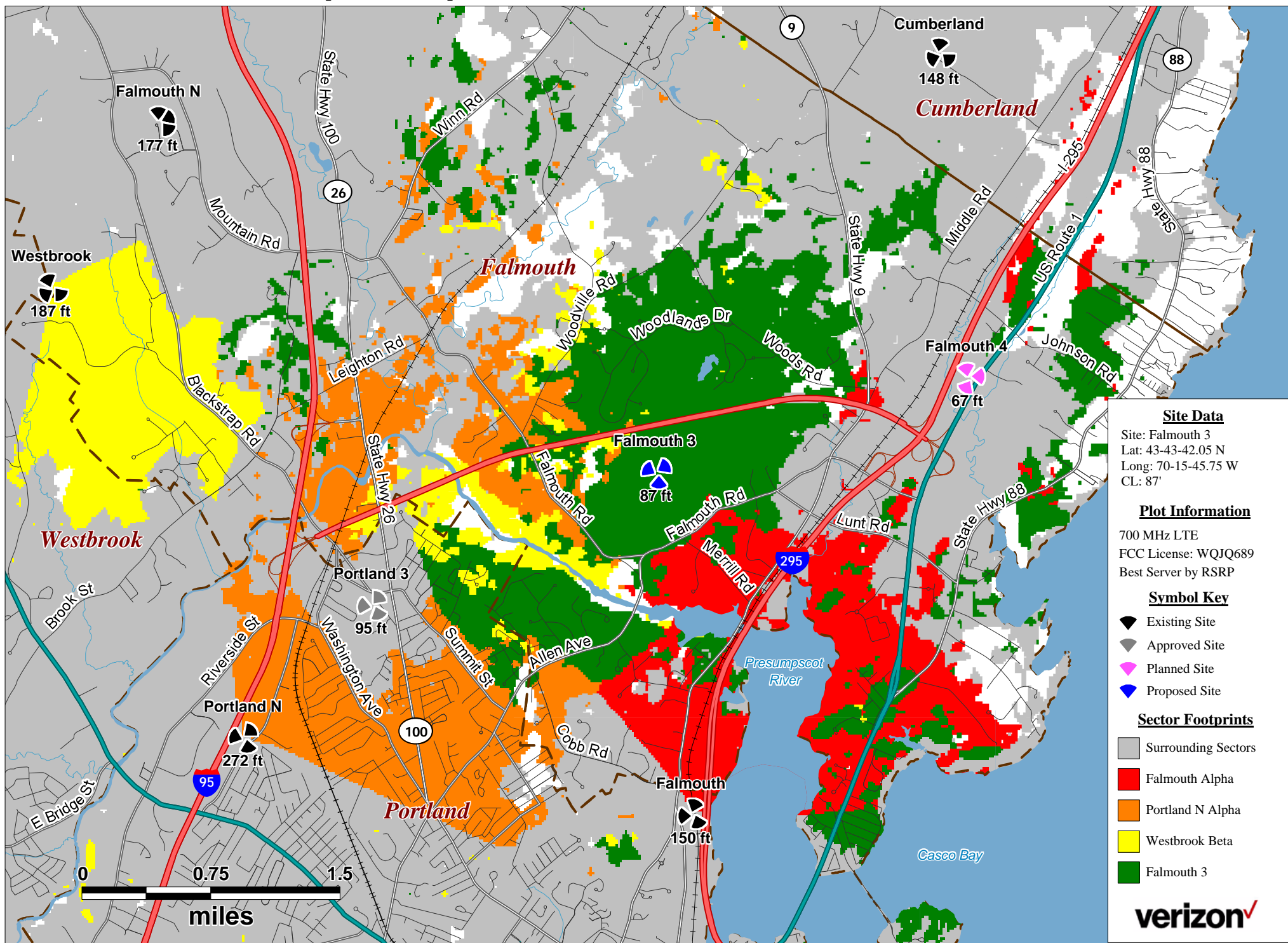
- ▲ Existing Site
- ▲ Approved Site
- ◆ Planned Site
- ◆ Proposed Site

**Sector Footprints**

- Surrounding Sectors
- Falmouth Alpha
- Portland N Alpha
- Westbrook Beta

**verizon**

**Attachment F:  
Falmouth 3 - 700 MHz LTE Sector Footprints with Proposed Site at 87 ft**



**Site Data**

Site: Falmouth 3  
 Lat: 43-43-42.05 N  
 Long: 70-15-45.75 W  
 CL: 87'

**Plot Information**

700 MHz LTE  
 FCC License: WQJQ689  
 Best Server by RSRP

**Symbol Key**

- Existing Site
- Approved Site
- Planned Site
- Proposed Site

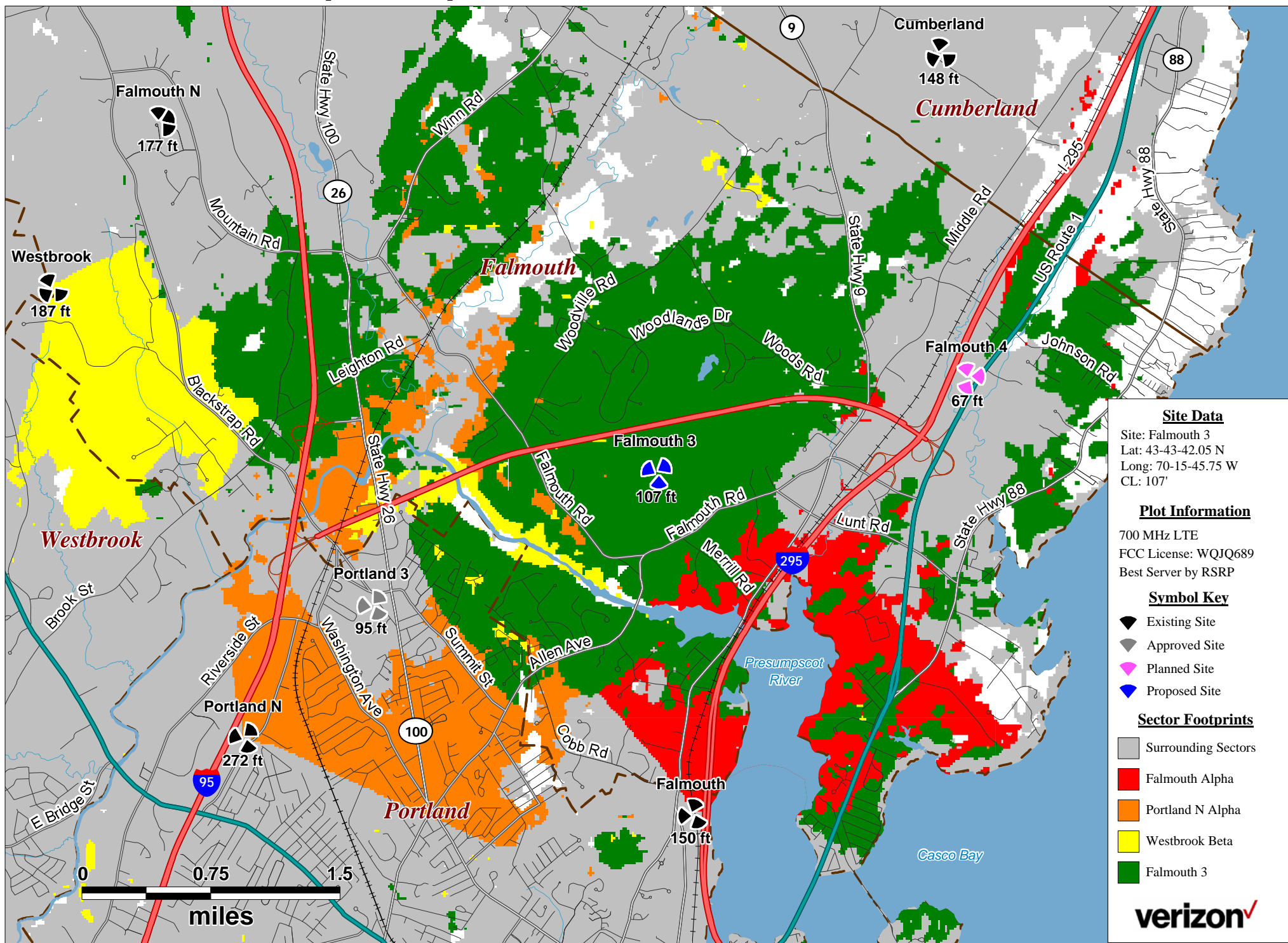
**Sector Footprints**

- Surrounding Sectors
- Falmouth Alpha
- Portland N Alpha
- Westbrook Beta
- Falmouth 3





**Attachment G:  
Falmouth 3 - 700 MHz LTE Sector Footprints with Proposed Site at 107 ft**



**Site Data**

Site: Falmouth 3  
 Lat: 43-43-42.05 N  
 Long: 70-15-45.75 W  
 CL: 107'

**Plot Information**

700 MHz LTE  
 FCC License: WQJQ689  
 Best Server by RSRP

**Symbol Key**

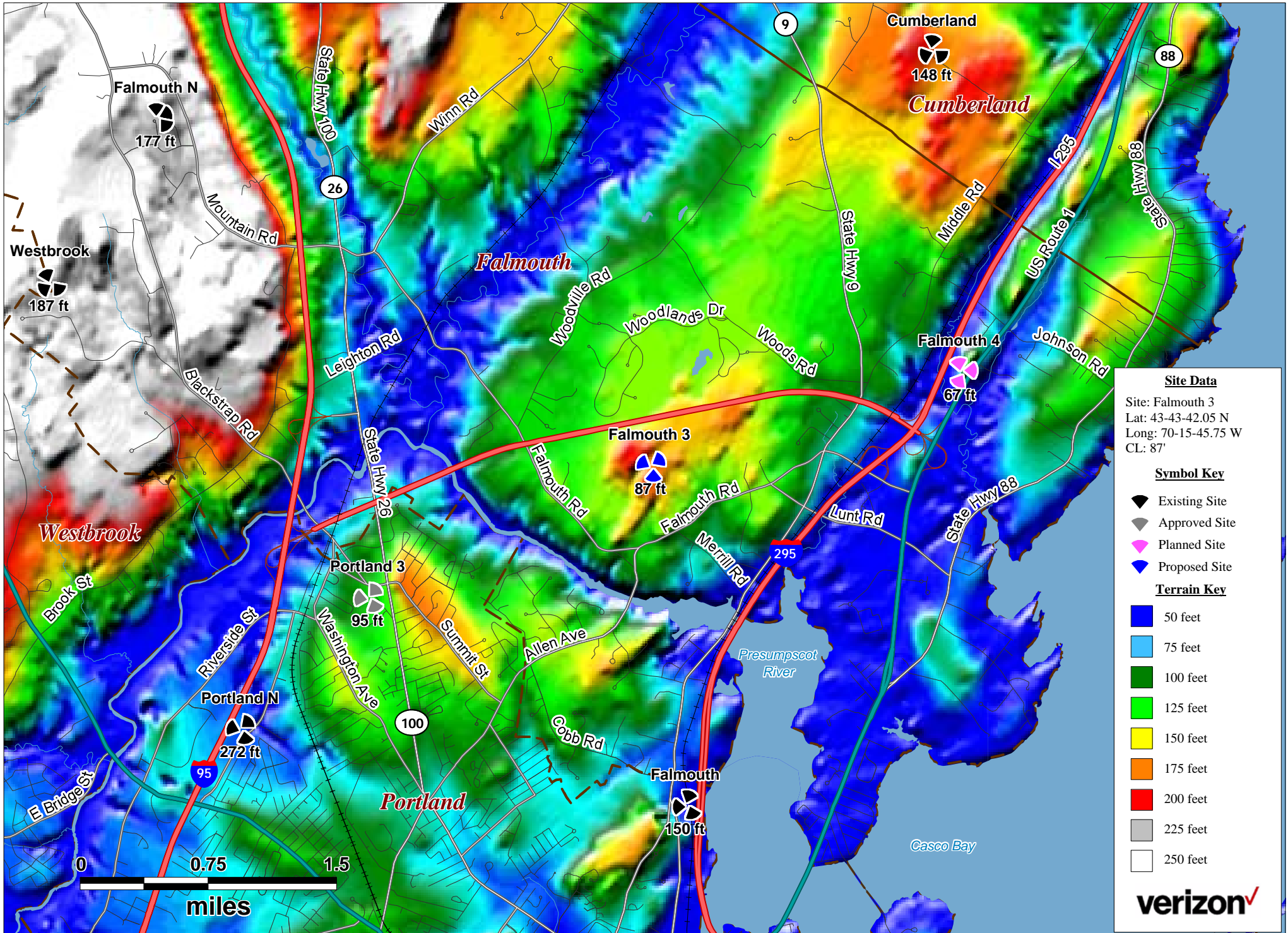
- Existing Site
- Approved Site
- Planned Site
- Proposed Site

**Sector Footprints**

- Surrounding Sectors
- Falmouth Alpha
- Portland N Alpha
- Westbrook Beta
- Falmouth 3



**Attachment H:  
Falmouth 3 - Area Terrain Map**



## EXHIBIT 10





