

3225 MAIN STREET • P.O. BOX 226
BARNSTABLE, MASSACHUSETTS 02630



CAPE COD
COMMISSION

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**CAPE COD COMMISSION STAFF MEMORANDUM
DEVELOPMENT OF REGIONAL IMPACT REVIEW**

Date: July 31, 2024
Project: Brick Kiln Monopole (File No. 24007)
Project Applicant: Vertex Towers, LLC
c/o Francis Parisi, Esq., Parisi Law Associates, P.C.
225 Dyer Street, Providence, RI 02903
Property Owner: Falmouth Self Storage Nominee Trust
G. Howard Hayes, Trustee
Property/ Site: 737 Gifford Street, Falmouth (Assessors ID 27-01-007)
Title Reference: Book 4670 Page 97
Subcommittee: Thomas Wilson (Chair), John Druley, John D. Harris, Kevin Grunwald, and Stephen Mealy

The Applicant submitted additional materials on July 24, 2024 as requested at the July 2, 2024 public hearing on the Project. The additional materials requested were technical justification as to why the proposed height of 130' is warranted and what minimum height is required to fill Verizon's coverage gap.

The materials were reviewed by the Commission's peer review consultant, Isotrope Wireless, whose additional findings are attached here. Based on this information, staff suggests that the Subcommittee discuss the height of the tower and the open space requirements for the Project. This discussion will inform any draft decision to be produced by staff.

Community Design

RPP Community Design Objective CD3 seeks to "avoid adverse visual impacts from infrastructure on scenic resources."

Based on the review of the additional information provided by the Applicant and further discussed in Isotrope's findings, the coverage gap for Verizon would be closed by a tower at 110

feet with Verizon's antennas at 105 feet. However, the lower tower would provide a smaller gain in wireless services and would be less attractive to future co-locators.

Staff suggests the Subcommittee discuss whether the additional impacts from a taller tower are offset by the benefits of additional service gains and the potential for future co-location.

Open Space

As further detailed in the June 27, 2024 Staff Report, staff suggests Open Space Objective OS3, which seeks to "protect or provide open space appropriate to context," is applicable and material to the Project.

At the July 2, 2024 public hearing the Applicant requested a finding that the requirements of Objective OS3 are not applicable to the Project. The Subcommittee should discuss whether this Objective is applicable, material, and regionally significant to the Project and direct staff whether to include the Applicant's requested finding in any draft Decision.

EXHIBIT A

ISOTROPE WIRELESS – REVIEW OF APPLICANT’S DEVELOPMENT OF REGIONAL IMPACT
SUPPLEMENTAL MATERIALS, DATED JULY 24, 2024



Thinking outside the sphere

Review of Supplement 2 for DRI: New Tower at 737 Gifford Street, Falmouth

July 25, 2024

Vertex Tower (Applicant) proposes a 130-ft monopole tower at 737 Gifford Street for Development of Regional Impact (DRI) approval by the Cape Cod Commission (Commission). It would be a new structure. Supplement 2, circulated by Attorney Parisi, is responsive to some questions/issues raised in the Isotrope initial review, as well as some items discussed during the public hearing of July 1, 2024.

Summary

Vertex/Verizon have provided a Supplement 2 to address/clarify some items, discussion and evaluation below:

Submitted supplementary information:

Section 1 – Narrative and plots from C Squared Systems on behalf of Verizon discussing and showing “Delta” (differences) between 125’ Antenna centerline height and 105’ (20’ drop) and 125’ to 85’ (40’ drop) and the relative effects of the change at 700 MHz and 2100 MHz.

Section 2 – Narrative and plots from Jose Hernandez on behalf of Vertex discussing and showing the single-site coverage for the proposed location, at 4 different heights (125’, 115’, 105’, 95’) and at 3 bands (700 MHz, 1900 MHz and 2100 MHz)

Discussion:

The Cape Cod Commission states in Technical Bulletin 97-001, XI, (A): “The Commission also seeks proposals with at least three committed carriers”. The present application has one supporting carrier (Verizon) and the remaining carriers have been contacted as required but have not directly supported this application. Nonetheless, since (future) colocation is preferred to additional towers, and in order to support (future) colocation the available slots on the tower need to be useful to future tenants, the need for the tower is twofold – 1. It needs to meet Verizon’s coverage needs at the height they are to locate and 2. – The tower needs to have additional available locations that other carriers can use and would choose to use to meet their needs.

When we reviewed the plots, the “Delta” plots clearly demonstrate that lower height will provide less coverage, which is to be expected. However, they do not effectively demonstrate that Verizon would not be able to meet some coverage criteria that is required for their service; and it is not possible from the provided plots to determine whether a lower height than 125’ would, in fact,



effectively address the areas of poor coverage “gap” that were shown in either the predicted coverage or measured coverage plots that were contained in the initial application. Essentially, it is demonstrated that the coverage will be poorer, should Verizon locate at 105’ (and poorer still at 85’) but no specific areas are identified that do not meet Verizon’s criteria for acceptable aggregate network coverage at the lower heights.

However, the section 2 narrative and plots from Mr. Hernandez do demonstrate coverage against a threshold of acceptability (-95 dBm) which shows that this site, at 95’ above ground, could be expected to provide inconsistent coverage at 1900 MHz and 2100 MHz in the area of the High School, which would therefore be expected to result in impaired voice service and data throughput within the School itself.

Therefore, it can be inferred from the information provided that the proposed site would meet the needs of a carrier looking to provide “acceptable” coverage at the High School, at 105’ and above, but likely not at 95’.

With 10’ spacing, and antenna centerlines at 125’, 115’ and 105’, this proposed monopole should provide adequate and useful collocation for all three wireless carriers (and potential Vertex tenants) serving the Falmouth area and allow all three of them to cover the High School area at 700 MHz, 1900 MHz and 2100 MHz.

When talking about tower heights, the balance is always between need and visual impact. The photosimulations provided in the initial application can be reviewed, and while relative visual impact is more opinion-based than definitive – it is questionable how much reduced visual impact this site would have (and from what perspective/location) if it were not 125’ tall but were 20’ shorter, until such time as additional carriers committed and were permitted to collocate.

Conclusion:

The applicant’s Supplement 2 addresses the deficiency in the initial application. Section 2, Mr. Hernandez’s plots, effectively address Section XI, B, 4 of the Application Requirements and provide the necessary information for a DRI assessment of height vs. need.

This concludes our review of Supplement 2.

Michael Lawton