

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



CAPE COD
COMMISSION

(508) 362-3828 • Fax (508) 362-3136 • www.capecodcommission.org

DEVELOPMENT OF REGIONAL IMPACT DECISION

Project: Mashpee Fire Station #2 Wireless Communications Monopole
(Commission File No. 18012)

Project Applicant/
Lessee: Blue Sky Towers II, LLC
c/o Elizabeth R. Thompson, Esq., Duval, Klasnick & Thompson, LLC
210 Broadway, Suite 204, Lynnfield, MA 01940

Property Owner: Town of Mashpee

Property/Location: 101 Red Brook Road, Mashpee, MA 02649
(Assessors Map 104 Parcel 2)

Title Reference: BCRD Deed Book 1467 Page 760

Date: October 18, 2018

SUMMARY

Blue Sky Towers II, LLC proposes to construct and install a 150' tall wireless communications monopole, along with supporting equipment and site improvements, to serve up to four personal wireless service carriers and Town of Mashpee public safety communications. Carriers Verizon and T-Mobile have proposed to locate on the monopole immediately upon its successful permitting and construction.

The Cape Cod Commission hereby grants Development of Regional Impact approval, with conditions, for the proposed development pursuant to Sections 12 and 13 of the Cape Cod Commission Act ("Act"). This decision is rendered pursuant to a vote of the Cape Cod Commission on October 18, 2018.

FINDINGS

The Cape Cod Commission ("Commission") finds and determines as follows:

- F1. The Project is a mandatory Development of Regional Impact (DRI) pursuant to Section 3(i)(1) of the Commission's *Enabling Regulations Governing Review of Developments of Regional Impact* ("Enabling Regulations"), revised April 19, 2018, as the "Construction of any Wireless Communication Tower exceeding 35 feet in overall height, including appurtenances, from the natural grade of the site on which it is located..."
- F2. Section 7(c)(viii) of the Commission's *Enabling Regulations* contains the standards for DRI approval, which include requirements that the project be consistent with the Cape Cod Regional

Policy Plan (“RPP”), District of Critical Planning Concern (“DCPC”) implementing regulations (as applicable), municipal development bylaws or ordinances, and Commission-certified Local Comprehensive Plans (as applicable). The Commission must also find that the probable benefit from the proposed development is greater than the probable detriment.

F3. The Commission received a mandatory DRI referral from the Town of Mashpee Planning Board for the Project on June 22, 2018. The Applicant submitted a DRI application to the Commission, including Exhibits 1 through 20, on July 11, 2018, and supplemental or revised application materials throughout July, August, and September 2018.

- The DRI hearing period for the Project was opened by a Commission hearing officer on August 20, 2018.
- A Commission subcommittee held public hearings on the Project on September 5, 2018 at the Mashpee Public Library and on September 17, 2018 at Commission offices.
- Commission staff prepared a staff report, dated August 29, 2018, for the September 5, 2018 hearing.
- At the September 17, 2018 hearing, the subcommittee: directed staff to prepare a draft DRI decision for its further review, which decision would serve as the subcommittee’s recommendation to the full Commission that it approve the Project, subject to conditions; and continued the public hearing to the Commission meeting of October 18, 2018.
- The subcommittee met on October 9, 2018 at Commission offices to, among other things, review the draft DRI decision and after review, voted to recommend that the Commission adopt said draft decision with amendments discussed at the meeting, and to approve the Project subject to the conditions in said decision.
- The full Commission held a hearing on the Project October 18, 2018 where, among other things, it considered the subcommittee’s recommendations, including the draft written DRI decision for the Project.

F4. The Commission received a significant amount of written and oral public comment on the Project throughout the hearing process, both in favor of and in opposition to the Project. Those in favor generally referred to the lack of existing wireless coverage in south Mashpee and the public safety issues associated with lack of coverage. Those in opposition generally questioned the appropriateness of the Project’s siting when the greatest coverage issues are in the New Seabury/Popponessett area to the south, stating how the visual impacts would affect the character of the setting and raised a perceived reduction in property values. The Town Manager, Fire Chief, and other Town public safety and other officials provided oral testimony about the long-standing identified need for better wireless coverage for 911 calls in the New Seabury/Popponessett area, and the Project’s ability to provide for wireless coverage more generally in south Mashpee, how this identified need led to the Town’s issuance of a Request for Proposals (“RFP”) for wireless facilities at the Property, and how reliable coverage is critical to the provision of emergency services in south Mashpee.

F5. The Cape Cod Commission requested third-party, independent technical review of the Project from its contracted wireless communications technical consultant (“Wireless Consultant”), David Maxson, principal of Isotrope, LLC. The Wireless Consultant prepared a written report (dated August 10, 2018) and presented it to the subcommittee at its September 5, 2018 hearing.

F6. The Project consists of a proposed 150-foot tall monopole-style wireless communications tower (“WCT”) and associated equipment within a 70-foot x 70-foot, 6-foot tall, chain-link fenced compound on a portion of the +/- 36-acre Mashpee Fire Station #2 property (Assessors Map 104, Lot 2), addressed as 101 Red Brook Road (“Property”).

- The Project is as further depicted and described in the plan set submitted as Exhibit 5 of the DRI application.
- The proposed WCT is designed to accommodate up to a total of four (4) wireless service carriers’ antennas and equipment, in addition to Town of Mashpee public safety antennas (for police, fire and emergency medical services).
- The Town’s proposed public safety antennas will be located 100 feet above ground level.
- The Applicant may install a lightning rod atop the WCT of up to 6 feet in height. No lighting is proposed for the WCT or fenced compound.
- Access to the fenced compound will be provided within a 20-foot-wide access and utility easement extending from Red Brook Road over the Property. The majority of the easement area is currently paved and used for access to Mashpee Fire Station #2, however, a new, 12-foot-wide gravel access drive and paved apron is proposed behind the fire station where there is currently no improved access.
- Utilities will run underground from Red Brook Road directly to the fenced compound.
- An associated gravel parking and turnaround area is proposed outside of the fenced compound.

F7. The Town of Mashpee (“Town”) issued an RFP in May 2017 for a new wireless communications facility to be constructed on a portion of the Property, and the Applicant’s Blue Sky Towers II, LLC’s (“Blue Sky” or Applicant”) proposal was selected by the Town as the winning bid.

F8. Pursuant to the bid award, the Applicant entered into a lease with the Town, dated 10/27/17, for a 100-foot x 100-foot leased area on the Property, within which the Applicant proposes to construct the Project (“Project Site”). Under the lease, a copy of which the Applicant provided in its DRI application, the Applicant has rights to permit, construct, and operate the Project, with access and utility rights over the Property to the Project Site.

F9. The Applicant has signed Letters of Intent (“LOI”) with two personal wireless service carriers, Verizon Wireless and T-Mobile (“Carriers”), to site-share on the WCT (copies of those LOIs, dated August 15, 2018 and August 1, 2018, respectively, were submitted as supplements to the DRI application). The Carriers have expressed that they will significantly improve coverage in areas of south Mashpee by locating on the proposed WCT.

F10. Verizon and T-Mobile are personal wireless service carriers licensed by the Federal Communications Commission (“FCC”) to operate wireless telecommunications networks in various markets throughout the country, including the Commonwealth of Massachusetts and the Town of Mashpee. Under these licenses from the FCC, these carriers are obligated to provide reliable wireless communications service to, among others, users in the Town of Mashpee (copies of such licenses and authorizations were provided as Exhibits 15 and 16 of the DRI application).

F11. The Applicant has notified the other two national wireless carriers (Sprint and AT&T) about site-sharing opportunities on the WCT (See Exhibit 20 of the DRI application). The

DRI Decision – Wireless Communications Monopole – Mashpee Fire Station #2 (Commission File No 18012)

Applicant is confident that the WCT offers an attractive site-sharing opportunity to these carriers, should the Project be successfully permitted and constructed. Public comment indicated that there was a desire for better coverage from AT&T in south Mashpee, which could be accommodated through the Project.

F12. Verizon Wireless proposes to mount 12 panel antennas around a triangular platform at a centerline elevation of 146 feet above ground level on the WCT. 12 Remote Radio Heads (“RRH”) with accessory junction boxes and surge suppressors will be mounted alongside the antennas. Verizon Wireless proposes to place telecommunications cabinets, utility connections (telecommunications and power), and a back-up propane power generator on concrete pads within a 12-foot x 20-foot area within the 70-foot x 70-foot fenced compound (see Exhibit 7 of the DRI application for Verizon Wireless antenna specifications).

F13. T-Mobile proposes to mount 12 panel antennas around a square platform and 12 RRH’s at a centerline of 136 feet above ground level on the WCT. T-Mobile will encompass a 10-foot x 20-foot area for its ground equipment and a 10-foot x 10-foot area for its propane generator within the 70-foot x 70-foot fenced compound. A pad-mounted transformer will be located just outside the fenced compound (see Exhibit 8 of the DRI application for T-Mobile antenna specifications) serving the tenant meter bank inside the compound.

F14. Without development of the Project, the Carriers cannot provide reliable service to the southern portions of the Town of Mashpee pursuant to the Telecommunications Act of 1996 and their licenses issued by the FCC. The Project will provide reliable coverage within large parts of south Mashpee. The Applicant has provided appropriate and sufficient documentation and analyses to evidence the Carriers’ problems in wireless coverage and thus the need and demand for the Project, including documentation consistent with guidance set out in the Commission’s Wireless Technical Bulletin.

F15. The Applicant conducted and provided an alternative site analysis (see DRI application narrative and Exhibit 14 of the DRI application). The Applicant showed that there are no existing structures of height sufficient to co-locate telecommunications equipment within the coverage area, and no feasible, alternative raw land sites for the Project from which the Carriers could provide coverage and capacity effectiveness comparable to the Project’s.

F16. The development of a distributed antenna system (“DAS”) or ‘small cell’ system is not feasible to address the extent of existing coverage and capacity problems in the subject coverage area of south Mashpee that the Project is intended to address, though such a system could be developed to supplement coverage provided by a WCT. It appears that there will come a need for additional wireless coverage and capacity in south Mashpee even with the Project, especially concerning the more densely developed areas of New Seabury and Popponessett, which are on the edge of coverage of the proposed WCT.

F17. The Applicant, Verizon Wireless, and T-Mobile have provided Radio Frequency (RF) reports and studies, coverage maps, and drive test data confirming and justifying the need for the proposed WCT (at the height proposed) in order to address coverage problems and thus to provide continuous, more reliable wireless service in south Mashpee:

- See Exhibit 11 of the DRI application- RF Report, Proposed Wireless Facility, 101 Red Brook Road, Mashpee, MA 02649, prepared by C Squared Systems, LLC for Verizon Wireless, dated April 3, 2018, with coverage maps and drive test data contained in Attachments A through F of the report;

DRI Decision – Wireless Communications Monopole – Mashpee Fire Station #2 (Commission File No 18012)

- See Exhibit 12 of the DRI application- T-Mobile RF Affidavit, Statement of Need and 2100 MHz Coverage Maps prepared by Richard Kariuki, T-Mobile RF Engineer;
- See Exhibit 13 of the DRI application-RF Benchmark Study, 101 Red Brook Road, Mashpee, MA 02649, prepared by SAI for Blue Sky Towers LLC, dated April 2, 2018, containing T-Mobile drive test data;
- As requested in the Commission staff report and in the Wireless Consultant's report, Verizon Wireless and T-Mobile also provided alternative coverage maps for the September 5, 2018 subcommittee hearing depicting anticipated 700 MHz coverage with the Carriers' antennas located at heights lower on the WCT than at those heights proposed in the DRI application (T-Mobile also provided 2100 MHz coverage maps at alternate antenna heights).
- On October 1, 2018, T-Mobile and Verizon Wireless provided separate compilation sets of the various coverage maps (consisting of 10 dated pages and 8 dated pages, respectively) that each had previously submitted through the DRI review process.

F18. It is noted that reliable wireless coverage requires a grid of radio transmitting and receiving sites, which, based on network layout and area topography features, operate on a radio "line-of-sight" basis, requiring a clear path from the facility to the location of the user, allowing for minor obstructions from the vegetation and buildings near the user ; antennas are located at heights where the signal is not immediately obstructed or degraded by buildings or geographical features. The proposed WCT fits reasonably well into the existing network of wireless facilities in the surrounding area, with a mild disadvantage that the most densely developed areas are along the coast in New Seabury and Popponessett at the edge of the coverage from the proposed WCT.

F19. The Project is appropriately located on municipal land, affording a municipality enhanced land development controls in the planning, construction, operation, and eventual decommissioning of such a project, where the municipality, through its political subdivisions and departments, acts both as a landlord and permitting authority. The Project does not interfere with existing municipal uses on the Property. Moreover, it supports such uses and is consistent with the purposes for which the land is held.

F20. The proposed monopole and equipment, including, without limitation, its constituent antennas, equipment shelters, and security barrier/fence, are collectively defined as a Personal Wireless Service Facility ("PWSF") under the Commission's Wireless Technical Bulletin. The Town should consider in its permitting for the Project and lease for the Project Site adopting requirements that the PWSF be maintained in good and safe working order and neat appearance. It appears that under the lease, the Town has addressed the potential, eventual Abandonment of the PWSF, and the respective duties and obligations of the owner/s of the PWSF to the Town upon Abandonment of the PWSF.

F21. The Applicant submitted with its DRI application a Determination of No Hazard from the Federal Aviation Administration ("FAA") dated 12/12/2017 that the Project poses no adverse aeronautical impacts and that lighting on the WCT is not required (See Exhibit 17 of the DRI application).

F22. The Town of Mashpee's Local Comprehensive Plan ("LCP") was adopted by the Town and certified by the Commission in 1998, and has not been updated or re-certified since. It is not currently considered "certified" by the Commission pursuant to the Commission's Local Comprehensive Plan Regulations, and thus a determination of consistency with such LCP is not

required for or technically applicable to the Project. Notwithstanding, according to Mashpee's Town Planner Evan Lehrer (see Town Planner's comment letter dated August 21, 2018), the Project is consistent with the purposes of the Personal Wireless Services provisions of the Mashpee Zoning By-law, which references the Town's LCP and long-term planning efforts.

F23. The only DCPC applicable to the Project is the Cape-wide Fertilizer Management DCPC. Mashpee adopted fertilizer (nutrient) management by-laws as implementing regulations pursuant to this DCPC. The Applicant does not propose to manage turf with fertilizer applications, and a determination of consistency with such implementing regulations does not apply to the Project as the Project is not within the scope of such regulations.

F24. The following municipal reviews, actions, permits, licenses and approvals are required for the Project from the Town of Mashpee: Special (Use) Permit from the Planning Board; and a Building Permit.

F25. Based on Commission staff review, and written comments from the Mashpee Town Planner and Town Counsel (dated respectively August 21, 2018 and September 24, 2018), the Project is consistent with municipal development by-laws, provided the Applicant obtains all necessary local permits, licenses, and approvals for it.

- The Project Site is within the R3 zoning district, in which personal wireless service facilities are allowed by special permit, and within the Mashpee Wireless Facility Overlay District.
- In particular, the siting and design of the Project is consistent with the intent of said Overlay District which is to preserve and protect those various resource areas defining said Overlay District.
- In the Overlay District, the Planning Board may allow personal wireless service facilities up to 200 feet in height as part of the underlying special permit for use.
- The Selectmen may pursue a zoning amendment on its Fall 2018 Town Meeting Warrant to confirm the Project Site's inclusion in the Overlay District, and to otherwise update the Overlay District provisions in the zoning by-law, on account of some ambiguities in the current language of the by-law.

F26. The probable benefits of the Project are that:

- A. The Project will address identified wireless coverage problems in south Mashpee, providing a needed service to a variety of users including area residents, the travelling public, and visitors who rely on such services for emergency communications, to operate their businesses, and to communicate with friends and family either at home or in their vehicles. Wireless communications are used by many homeowners who have eliminated land lines and use of multiple wireless platforms creates high data demand that will be served by the Project.
- B. The Project will allow for better and faster emergency responses by police, fire and EMS.
- C. The Project proposes immediate wireless carrier site-sharing and attractive opportunities for other national wireless carriers to site-share on the proposed WCT, potentially eliminating or limiting the future need for additional wireless towers in south Mashpee.
- D. The Project is a type of infrastructure, which supports other uses and development.

- E. The Project is sited on municipal land, allowing an additional level of control over the proposed development by the Town, and a revenue stream from the lease to support Town operations and services.
- F. The Project accommodates Town of Mashpee public safety communications equipment, which will assist emergency services and communications in the Town.

F27. The probable detriment of the Project is that the proposed WCT may have visual impacts to some neighboring properties more acute than to properties in south Mashpee in general.

GENERAL REGIONAL POLICY PLAN/ WIRELESS TECHNICAL BULLETIN FINDINGS

F28. The Project was reviewed subject to relevant issue areas of the 2009 Regional Policy Plan, amended August 2012, and corresponding goals and performance standards applicable and material to the Project therein, and to the Commission’s Wireless Technical Bulletin 97-001, “Guidelines for DRI Review of Wireless Communication Towers” (“*Wireless Technical Bulletin*” or “*WTB*”).

F29. The Regional Policy Plan contains goals and performance standards that apply to review of any given DRI project. Given the nature of WCT projects in general, and of the specific Project under consideration, many of the RPP’s goals and standards are either inapplicable or not material to the Project. Under Section 7(c)(viii)(d) of the *Enabling Regulations*, the Commission is specifically authorized to waive RPP Goals, Standards, and Issue Areas it deems outside the scope of project review for WCTs. The four RPP issue areas that are applicable and material to this Project are Land Use, Heritage Preservation/Community Character, Water Resources, and Wildlife and Plant Habitat.

F30. The primary emphasis in and scope of this DRI review, as with most if not all DRI reviews of proposed WCTs, is the potential visual impact of the Project as assessed under the RPP issue area of Community Character. The Commission’s review of the Project balances identified wireless coverage and capacity demands with potential natural resource and visual impact concerns. As discussed below, the Project is consistent with the RPP and its corresponding goals, standards, and practices and with provisions from the Wireless Technical Bulletin applicable and material to the Project.

RPP- LAND USE FINDINGS

F31. The RPP’s Land Use issue area requires consistency with the Wireless Technical Bulletin. The WTB provides guidance on WCT DRI review, including siting/dimensional requirements and design, noise, and radiofrequency standards:

- A. The proposed WCT meets the WTB’s ‘fall zone’/setback requirements from property lines. The Town has considered and acknowledges the location of the proposed WCT relative to the existing fire station on the Property in its RFP and resulting lease with the Applicant.
- B. The Applicant’s Environmental Sound Assessment (prepared by Modeling Specialties, dated November 18, 2017, and included as Exhibit 18 of the DRI application) shows that the Project meets the 50 dBA limitations on ambient noise from the Project under regular operation, including under full build-out of the Project for four carriers and their anticipated equipment. If the proposed facility were built out to the fullest extent possible, the combined energy from all sources would produce a property line Ldn (i.e. average day/night) noise level of

DRI Decision –Wireless Communications Monopole – Mashpee Fire Station #2 (Commission File No 18012)

49 dBA. The Wireless Consultant confirmed that the noise analysis performed and documented by Modeling Specialties employed best practices to arrive at its conclusions.

- C. The Applicant's radio frequency (RF) emissions report (prepared by Dr. Donald L. Haes, Jr., dated January 12, 2018, and included as Exhibit 19 to the DRI application) indicates that the Project meets applicable RF emissions limitations as proposed and under full build-out of the Project for four carriers and their anticipated equipment. According to Dr. Haes, the Project will comply with all regulatory guidelines for RF energy exposure, including Massachusetts Department of Public Health regulations and the FCC guidelines. The Wireless Consultant confirmed the radio-frequency analysis prepared by Dr. Haes.
- D. The Applicant has designed the Project to accommodate and has committed to donating a position on the proposed WCT for Town emergency response service equipment.
- E. The Applicant has indicated a willingness to paint the WCT (best practice is generally light blue or gray, according to the WTB), or construct and maintain the proposed WCT as a "monopine," at the discretion and direction of the Commission and Town.
- F. The Project includes a monopole design for the WCT; monopoles are the preferred type of tower in the WTB.

F32. The Project proposes infrastructure to meet community and regional needs, and to maintain the reliability and quality of infrastructure services. The Project will provide and maintain acceptable levels of personal wireless service coverage to portions of south Mashpee. The Project is proposed in response to an identified need for infrastructure services. The Applicant has sufficiently evidenced the need for the Project to address wireless coverage and capacity problems in south Mashpee.

F33. The Applicant has investigated alternative siting and designs for the WCT. The Project represents the identified best, feasible design and siting for the WCT that meets coverage needs and the goals of the Regional Policy Plan relating to the minimization of impacts on the built and natural environment. As designed and proposed, the Project includes carrier co-location and realistic opportunities for further co-location, which is supported in the RPP and WTB.

F34. The Project minimizes adverse impacts of development on land by using land efficiently, by protecting sensitive resources, and through appropriate siting. The Applicant has minimized the footprint of the Project and its associated land disturbance to the extent feasible. The Project involves a low intensity land use, compatible with the current use of the Property and development patterns in the surrounding area, which includes the fire station on the Property.

F35. The Project is located on municipal land which is preferred for projects of the type proposed, as a municipal body acts as a fiduciary for its residents, and has a greater level of control over planning, construction, and oversight of use and development on such land.

F36. The Project will not be staffed day to day, and no permanent impacts to the regional transportation network from the Project are anticipated as very few vehicle trips to the Project Site attributable to the Project are anticipated under operating conditions.

RPP- HERITAGE PRESERVATION/COMMUNITY CHARACTER FINDINGS

F37. The Applicant had prepared and submitted to the Commission as Exhibit 9 of the DRI application a FCC New Tower Submission Packet/NHPA Section 106 Analysis dated May 7, 2018 by Lucas Environmental LLC. This document included the following studies: a Cultural Resources Visual Impact Assessment (with Photo Plate Views 1 through 12 attached thereto) by Nicholas Avery dated April 17, 2018; an Archaeological Assessment by Barbara Donahue dated December 6, 2017; and Phase I Intensive Locational Archaeological Survey by ACS dated May 2018.

F38. There are no historic properties on or in the immediate vicinity of the Property or Project Site. No archaeological resources were identified in the intensive site survey conducted within the Project Site by a consultant retained by the Applicant. The archaeological survey was conducted under a permit issued by the Massachusetts Historical Commission (“MHC”) and the survey was filed with MHC when completed. Commission staff confirmed that MHC determined that the Project is unlikely to affect historic or archaeological resources within the Project Site.

F39. There is sufficient existing forested area on the Property to substantially obscure and limit views of the WCT equipment compound and ground views and lower portions of the WCT, and to blend the Project in with the natural environment to the greatest extent possible. The Project Site is surrounded by trees to the nearest (northern) property line 200+ feet away from the WCT. The average tree canopy height in this area of Mashpee is 55 feet to 64 feet. The Project Site is located generally at the center of the Property.

F40. An applicant is required to explore and address feasible alternatives for lessening visual impacts associated with wireless towers, such as lowering the height of the WCT or other alternative designs. The Applicant has so considered and analyzed design and siting alternatives for the Project. The Applicant proposes a monopole-style tower, which is the preferred tower design under the Commission’s WTB, that maintains a narrow profile to the eye. The proposed height of the WCT is necessary to allow the Carriers to meet coverage deficiencies, and allows for further realistic, co-location opportunities. The Commission did not require the Applicant to explore siting elsewhere on the Property, as alternative siting likely would result in further disturbance of natural areas on the Property, might conflict with archaeological resources on the Property not yet identified and outside the scope of the Applicant’s current archaeological survey, and may create new additional visual impacts not present in the current proposal.

F41. The Applicant provided photographic simulations of the proposed WCT taken from twelve vantage points in the area surrounding the Project Site and Property, as Exhibit 6 to the DRI application (entitled “Viewshed Mapping Package/Photographic Simulation Package” prepared by Virtual Site Simulations, LLC).

F42. Virtual Site Simulations, LLC (“VSS”) conducted a balloon test at the Property on 4/14/18, which was noticed in the local newspaper. Balloons were flown at two heights – 125 feet above ground level and 150 feet above ground level. Photographs were taken and photographic simulations (photosimulations) of the proposed WCT were prepared by VSS based on those photographs, consistent with guidance from Commission staff and from that contained in the Wireless Technical Bulletin. The Applicant had previously consulted with Commission staff about the appropriate vantage points from which photographs should be taken, representing areas of regionally-significant public viewsheds that could be visually impacted by the Project. Photosimulations were provided of the WCT at a height of 150 feet above ground level (AGL),

with four wireless service carriers and antennas, and alternately with two wireless service carriers and antennas.

F43. Based on comments from the Wireless Consultant's Report, the Applicant provided a revised and corrected photosimulation package of the proposed WCT at a height of 150 feet, and a written description of the photographic simulation methodology used by VSS, on August 24, 2018 (see August 22, 2018 memorandum from VSS provided as a supplement to the DRI application). The Applicant subsequently, as requested by Commission staff, provided in advance of the September 5, 2018 public hearing a supplemental photosimulation package with the proposed WCT depicted at a lower alternate height of 125 feet, to match the lower balloon test height.

F44. The photosimulations show that, even at 150 feet tall, the proposed WCT will not be visible from most of the vantage points from which photographs were taken. The photographic simulations show that the proposed WCT will be visible along nearby roadway segments and from some neighboring properties in the Project vicinity. The Project is not located within the viewshed of a scenic vista, scenic landscape, or scenic road as designated by the Town of Mashpee. The Project will not be visible or readily visible from identified historic structures or scenic landscapes per the photosimulations, such as from Ockway Bay.

F45. At the September 5, 2018 hearing, the subcommittee requested further alternative photosimulations depicting the proposed WCT as a "monopine," in order to investigate whether such design would serve as an effective camouflage and visual impact mitigation technique for sky-line views of the proposed WCT.

- A. The Applicant provided such supplemental photosimulations for the September 17, 2018 continued subcommittee hearing, depicting the proposed WCT as a monopine at a height of 150 feet from three proximate vantage points previously identified in the photosimulations from which the proposed WCT would be especially visible.
- B. The subcommittee expressed an interest in further investigating a monopine design for the proposed WCT at the September 17, 2018 hearing, and the Applicant expressed a willingness to pursue such design at the direction of the subcommittee and Commission.
- C. The Applicant had also previously expressed its willingness (in the DRI application and at the hearing) to paint the WCT to serve as a camouflage and visual mitigation technique. (The Commission's WTB recommends a light gray or light blue color to blend the WCT with the sky).
- D. On October 1, 2018, the Applicant provided a compilation set (consisting of 39 pages) of revised photosimulations previously submitted through the DRI review process, which included photosimulations of the alternative "monopine" design (the design reflects the Subcommittee's request at the September 17, 2018 hearing that the monopine "branches" be carried below the average tree-line height in the area).
- E. For the October 9, 2018 subcommittee meeting, the Applicant prepared and provided an alternative monopine design for the proposed WCT (see revised elevation sheets SE-1 and SE-2 date-stamped 10/2/2018).
- F. The subcommittee discussed painting the proposed WCT as a camouflage technique at different points during its review, and reviewed the alternative monopine design plans prepared by the Applicant at the public meeting on October 9, 2018. After review, it was ultimately the subcommittee's opinion that camouflage for the proposed WCT is primarily a local issue best left to the discretion of the Town through local zoning permitting and review.

- G. The Commission reserves and defers to the Town's Planning Board the determination about whether the painting or 'monopine' camouflage techniques discussed during Commission review should be required for the proposed WCT. Should the Planning Board require in its decision that the proposed WCT be painted or that it be constructed as a 'monopine' according to those plans referenced in subparagraph "E." immediately above, such plan changes, including without limitation the potential for extending the monopine camouflage above the 150-foot level to maintain realistic foliage, shall be deemed incorporated into and consistent with the Approved Project Plans referenced in Condition C3 of this decision without the need for further action, approval or review by the Commission.

RPP- WATER RESOURCES FINDINGS

F46. The Project Site is located in a Wellhead Protection Area (and a Town Groundwater Protection Zoning Overlay District), and within the Rock Landing Wells subwatershed of the Popponesset Bay watershed. Due to the nature and design of the Project, the Project will not create impacts on these regionally-significant water resource areas:

- A. There will be no associated hazardous materials or waste generated, used, or stored with the Project. The two Carriers have proposed the use of propane generators for back-up power. The Applicant has committed to limiting back-up generator fuel sources for the Project to propane, which poses little to no risk of harm to water resources;
- B. As there is no wastewater flow, water use, or managed turf associated with the Project, and limited impervious coverage, the anticipated nitrogen loading from the Project is minimal. Popponesset Bay is nitrogen-impaired, however the Rock Landing Wells subwatershed does not require nitrogen load reduction. The Project has an expected site-wide nitrogen loading of 1 ppm, well below the 5 ppm nitrogen loading standard for general aquifer drinking water protection, and a low nitrogen load to the subwatershed.

F47. The Project's gravel compound, concrete equipment pads, and gravel access road and paved apron will create approximately 7,230 ft² of new impervious coverage area; there are not anticipated to be significant changes in site drainage patterns from the Project. The Applicant has proposed stormwater management for construction and operation of the Project in the Project site plans, appropriate to the scope of the Project, that satisfies relevant requirements in the RPP.

F48. The Applicant has submitted an erosion control plan (Sheet A3 in the Project plan set) to minimize erosion and runoff during construction activities. The plan includes phased construction, the use of silt fencing and other erosion control barriers, stabilization of disturbed areas during construction, and replanting of vegetation to stabilize disturbed areas following construction. These plans provide for adequate stormwater control during construction.

F49. The Applicant has incorporated stormwater management systems at a scale sufficient to address runoff from the Project during operation, given the Project's limited footprint and clearing. The Applicant has also provided a narrative of the stormwater management system outlining anticipated stormwater management needs and the ways in which they will be addressed, including a description of the elements that constitute the stormwater management system for the Project, and the design intent and operation of the system relative to anticipated runoff from the Project (see stormwater management system narrative for the Project submitted

as a supplement to the DRI application, prepared by ProTerra Design Group LLC, dated August 30, 2018). The proposed stormwater management facilities address any changes in drainage patterns associated with the Project, and the design ensures that stormwater associated with the Project is captured and infiltrated on the Property. The system and existing naturalized areas of the Property will provide sufficient stormwater treatment.

F50. The Mashpee Zoning By-law also contains stormwater management requirements. The Applicant's initial stormwater management proposal required significantly more clearing and site disturbance for the Project than what is necessary, given the limited clearing, disturbance, and ground coverage associated with the Project, and the ability of the naturalized portions of the Property to handle and treat the anticipated stormwater runoff from the Project. The current stormwater management proposal for the Project minimizes new site disturbance and clearing while at the same time providing appropriate stormwater recharge and treatment on-site. The Commission understands that the Applicant will seek approval for this balanced stormwater management proposal as part of its special permit application for the WCT.

RPP- WILDLIFE AND PLANT HABITAT FINDINGS

F51. The Project Site: consists of white pine-oak woodland vegetation typical of upper Cape Cod; is not mapped within a flood hazard zone; neither contains nor is proximate to vernal pools, wetlands or their respective buffer zones; is not mapped as Priority Habitat for Rare or Endangered Species under the Massachusetts Endangered Species Act (MESA); and does not otherwise contain unique or special species or habitats of concern. The Site may contain (as many areas on Cape Cod might) potential habitat for the federally listed northern long-eared bat, though, as designed (i.e. proposed time of year restrictions on tree clearing), the Project would not result in a prohibited 'take' of such species.

F52. The Applicant has minimized the Project's impacts on habitat and other natural resource interests, balanced with minimizing the potential visual impacts of the Project. The construction envelope has been limited to the greatest extent feasible and the proposed WCT has been sited close to Mashpee Fire Station #2 in order to: preserve a wooded buffer (beneficial in preserving natural resources and minimizing visual impact); minimize the length of the access road; and minimize the impact to the undeveloped, forested portion of the Town parcel. The total proposed area of new site disturbance is less than one third of an acre; tree clearing is limited to approximately 7,500 sq. ft. with approximately 7,300 sq. ft. of new structural site coverage, including the gravel access road and compound; and the Project's equipment compound footprint has been limited to approximately 4,900 sq. ft., relatively minor given the 36 +/- acre size of the Property.

F53. The Applicant was not required to prepare and submit a natural resources inventory for the Property or Project Site as part of the DRI application. However, the Applicant submitted a copy of its NEPA Screening Report (prepared by Lucas Environmental LLC dated April 10, 2018) as Exhibit 10 of the DRI application, which confirms the absence of identified sensitive habitat or cultural resource areas on the Project Site.

F54. Given the Project's small development footprint and minimized disturbance of natural areas; that the municipal Property is already limited in its development potential; will still be primarily forested; and basically serves and will continue to serve as part of the extensive open space network in the south part of Mashpee, no open space mitigation is required for the Project.

CONCLUSION

Based on the Findings above, the Commission hereby concludes, determines, and finds further that:

- A. Subject to and upon satisfaction of the Conditions identified in this decision, the Project is consistent with the Act and the 2009 Regional Policy Plan (as amended).
- B. The Project is consistent with Mashpee's Local Comprehensive Plan, as applicable.
- C. The Project is consistent with municipal development by-laws, subject to the Applicant obtaining all required local approvals, licenses, and permits for the Project.
- D. The Project is consistent with DCPC Implementing Regulations, as applicable.
- E. The probable benefit of the proposed development is greater than the probable detriment of the proposed development.

The Commission hereby grants DRI approval for the wireless communications Project at 101 Red Brook Road, Mashpee as described herein, subject to the following Conditions.

CONDITIONS

C1. When final, this decision shall be valid and effective, and municipal development permits may be issued for the Project pursuant to this decision for a period of up to seven years following the date of this decision (the Applicant may request and the Commission may grant an extension to such period in accordance with the relevant provisions of the Code of Cape Cod Commission Regulations of General Application). This decision shall be final when the appeal period set out in Section 17 of the Cape Cod Commission Act has elapsed without appeal (or if such an appeal has been filed, when the appeal has been finally settled, dismissed, adjudicated, or otherwise disposed of in favor of the Applicant), and a copy of this decision has been recorded with the Barnstable Registry of Deeds. The Applicant shall bear the costs of so recording this decision.

C2. This decision shall be appurtenant to and run with the Project Site on the subject Property. The decision shall bind and be enforceable against, and inure to the benefit of, the Applicant, its successors, and assigns.

C3. Except as specifically addressed and provided for in Finding F45G. herein, the Project shall be undertaken, constructed, operated, and maintained in accordance with the terms and Conditions set out herein, including the plans and documents referenced below ("Approved Project Plans"). When and as any plans and documents required to be submitted as Conditions of this decision are reviewed and approved by Commission staff, such plans and documents shall be deemed incorporated into the Approved Project Plans, and the Project shall similarly be undertaken, constructed, operated, and maintained in accordance with the same.

Approved Project Plans

- Project Plan Set entitled "Permitting Review, Site Name: Mashpee Fire Station #2, Site Number: MA-5112, Address: 101 Red Brook Road, Mashpee MA, 02649" prepared for Blue Sky Towers, LLC, Verizon Wireless and T-Mobile by ProTerra design Group, LLC consisting of the following 15 sheets: T-1, A-1, A-2, A-3, A-4, SE-1, SE-2, EC-1, D-1, CA-1, CA-2, CA-3, CA-4 (all dated 9/27/17) and sheets C-1 and C-2 (both dated 6/11/2018).

C4. Failure to comply, and remain in compliance, with all terms and Conditions stated herein may be deemed cause to revoke or require modification to this decision. This decision does not permit any other work or development at the Project Site or Property, including tree and

vegetation clearing and removal, except as authorized herein. Commission staff may make, and the Applicant hereby authorizes, site inspections upon reasonable notice to the Applicant as such visits are needed, to determine whether the Project has been constructed and is being maintained, used, and operated in accordance with this decision, including the applicable Conditions hereof.

C5. Prior to undertaking the same, the Applicant shall apply to and obtain permission from the Commission for any Project changes or changes to this decision, in accordance with the "Modification" section of the Commission's *Enabling Regulations* in effect at the time the permission is sought.

C6. Prior to and as a condition to use and operation of the Project and issuance of Building Permit sign-off for the Project, the Applicant shall apply for and obtain a Certificate of Compliance for the Project from the Commission. Issuance of the Certificate of Compliance is contingent on Commission staff's review and confirmation that the Project has been completed in accordance with this decision. Commission staff may make a site visit and require submission of further information from the Applicant to evidence compliance with this decision, prior to and in support of issuance of such Certificate of Compliance.

C7. Prior to commencement of Project construction, the Applicant shall:

- A. have obtained all necessary federal, state, and municipal permits, licenses, and approvals for the Project, and provide copies of the same to the Commission. The Project's consistency with municipal development by-laws, regulations or ordinances shall be evidenced and confirmed by the Applicant obtaining all said necessary municipal permits, licenses, and approvals;
- B. provide evidence to the Commission that a copy of this decision has been provided to and received by the general contractor for the Project. Copies of this decision and approved Project plans and documents referenced herein shall be maintained on-site during Project construction.

C8. In order to visually screen the Project, existing natural vegetation on the Property shall be retained and not cleared or removed, except as necessary to construct the Project and in accordance with that clearing depicted in the Approved Project Plans.

C9. The Applicant shall donate and allow space on the wireless communications tower for telecommunications-related, emergency response equipment of the Town of Mashpee.

C10. To the extent that a back-up generator is proposed for the Project, the Commission encourages a single, shared back-up generator for all users of the Project. If more than one back-up generator is used for the Project, they shall not be tested at the same time. Back-up generators shall only be fueled by natural gas or propane. Routine generator testing shall only be performed on weekdays during day-light hours.

C11. No exterior lighting for the equipment compound is currently proposed. Should such lighting be proposed in the future, it shall be designed, constructed, and maintained consistent with the RPP's Community Character lighting standards and with the Commission's Lighting Technical Bulletin 95-001, *Development of Regional Impact Guidelines for Exterior Lighting*. Specifications for any such proposed compound lighting shall be submitted to Commission staff for review and approval prior to installation. Lighting on the WCT is prohibited unless otherwise required by the FAA.

(SIGNATURE PAGE FOLLOWS)

DRI Decision – Wireless Communications Monopole – Mashpee Fire Station #2 (Commission File No 18012)

SIGNATURE PAGE

Executed this 18th day of October 2018.

Harold W Mitchell
Signature

Harold W Mitchell CC Commission Chair
Print Name and Title

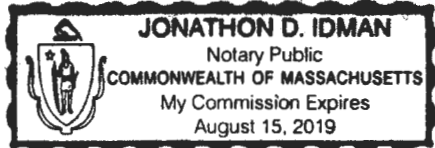
COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss

October 18, 2018

Before me, the undersigned notary public, personally appeared Harold W. Mitchell, in his capacity as Chair of the Cape Cod

Commission, whose name is signed on the preceding document, and such person acknowledged to me that he signed such document voluntarily for its stated purpose. The identity of such person was proved to me through satisfactory evidence of identification, which was [] photographic identification with signature issued by a federal or state governmental agency, [] oath or affirmation of a credible witness, or [] personal knowledge of the undersigned.



SEAL

[Signature]
Notary Public
My Commission Expires: