

From: [Clint Smith PE](#)
To: [Don Serotta](#)
Cc: [Melissa Foote](#)
Subject: Walton Park Engineering Necessity Case report
Date: Thursday, September 29, 2022 8:33:16 AM

Don,

I reviewed Verizon's Engineering Necessity Case dated September 19, 2022, for the proposed Walton Park cell site. The report was similar to the previously submitted Engineering Necessity Case report with the exception that the RF coverage plots were created for both the 146ft and 96ft Antenna Center Line (ACL). In addition, the report included RF coverage plots for the 1900 MHz frequency band that Verizon uses.

The RF coverage plots provided by Verizon show the expected RF coverage from the Walton Park cell site at both the 146 ft ACL and 96 ft ACL.

The RF coverage plots in all three frequency bands ,700 MHz, 1900 MHz and 2100 MHz, show that a significant amount of RF coverage will be lost when lowering the antenna ACL from 146 ft to 96ft.

In comparing the RF coverage plots for all three frequency bands the antenna ACL for the Walton Park cell site should not be reduced from 146ft.

The following is a brief summary of some the key pages that make up the Engineering Necessity Case dated September 19, 2022, for the proposed Walton Park cell site.

700MHz:

Pages 17 through 19 were the RF coverage plots for the 700MHz frequency band.

Page 17 shows the existing RF coverage provided by Verizon without the Walton Park site activated.

Page 18 is the RF coverage that will exist when the Walton Park site is activated if the antennas are at 146 ft ACL.

Page 19 is the RF coverage that will exist when the Walton Park site is activated if the antennas are at 96 ft ACL.

When comparing page 18 and 19 there is a significant reduction in RF coverage that the Walton Park site can provide when lowering the antennas from 146 ft ACL to 96 ft ACL.

The areas that are encircled with the broken line on page 19 are the same areas in page 18. However, on page 19 the reduction in RF coverage is most evident with the reduced ACL height as compared to page 18. In addition, RF coverage improvement will not take place in areas on Laroe Rd and Bull Mill Rd that are encircled with a broken line.

2100MHz:

The 2100MHz band does not have the same RF coverage capability as that shown for the 700MHz band. Specifically, the RF coverage for the 2100MHz band is less than that possible with the 700MHz band.

Pages 23 through 25 were the RF coverage plots for the 2100MHz frequency band.

Page 23 shows the existing RF coverage for the 2100MHz band provided by Verizon without the Walton Park site activated.

Page 24 is the RF coverage that will exist when the Walton Park site is activated when the antennas are placed at 146 ft ACL.

Page 25 is the RF coverage that will exist when the Walton Park site is activated when the antennas are placed at 96 ft ACL.

When comparing page 24 and 25 there is a significant reduction in RF coverage that the Walton Park site can provide if the antennas are lowered from 146 ft ACL to 96 ft ACL.

The areas that are encircled with the broken line on page 24 is the same area as that for page 25.

Page 24 for the 2100 MHz band indicates that there will be a definite improvement in RF coverage. However, on page 25 the reduction in RF coverage is evident as compared to page 24 when the antenna ACL height is reduced. The is reduction in ACL from 146 ft to 96 ft indicates the RF coverage improvement will not take place in areas on Laroe Rd and Bull Mill Rd that are encircled with a broken line.

1900MHz:

The 1900MHz band does not have the same RF coverage characteristics as that shown for the 700MHz and 2100MHz bands. Specifically, the RF coverage for the 1900MHz band is less than that possible with the 700MHz band. However, the 1900MHz band has slightly better RF coverage than that of the 2100MHz band.

Pages 29 through 31 are the RF coverage plots for the 1900MHz frequency band

Page 29 shows the existing RF coverage for the 1900MHz band provided by Verizon without the Walton Park site activated.

Page 30 is a RF coverage that will exist when the Walton Park site is activated when the antennas are placed at 146 ft ACL.

Page 31 is a RF coverage that will exist when the Walton Park site is activated when the antennas are placed at 96 ft ACL.

When comparing page 30 against 31 there is a significant reduction in RF coverage that the Walton Park site can provide if the antennas are lowered from 146 ft ACL to 96 ft ACL.

The areas that are encircled with the broken line on page 30 is the same area as that for page 31.

The 1900MHz band in page 30 indicates that there will be a definite improvement in RF coverage. However, the reduction in RF coverage is evident with the reduced ACL height when comparing pages 30 to 31. The reduction in ACL from 146 ft to 96 ft indicates the RF coverage improvement will not take place in areas on Laroe Rd and Bull Mill Rd that are encircled with a broken line.

Regards,

Clint