

Christie Burns

From: Michal Laskowski
Sent: 29 January 2025 16:16
To: Nick Hayhurst; Christie Burns
Subject: RE: 4/24/2384/0F1 - GRASS VERGE AT HORN HILL, MOOR ROAD, MILLOM (Our ref: 20786521)
Attachments: 95335 Coverage Plots_Grow The Grid (Shared) Ver2.0 (Ht Justification).pdf

CAUTION: External email, think before you click!

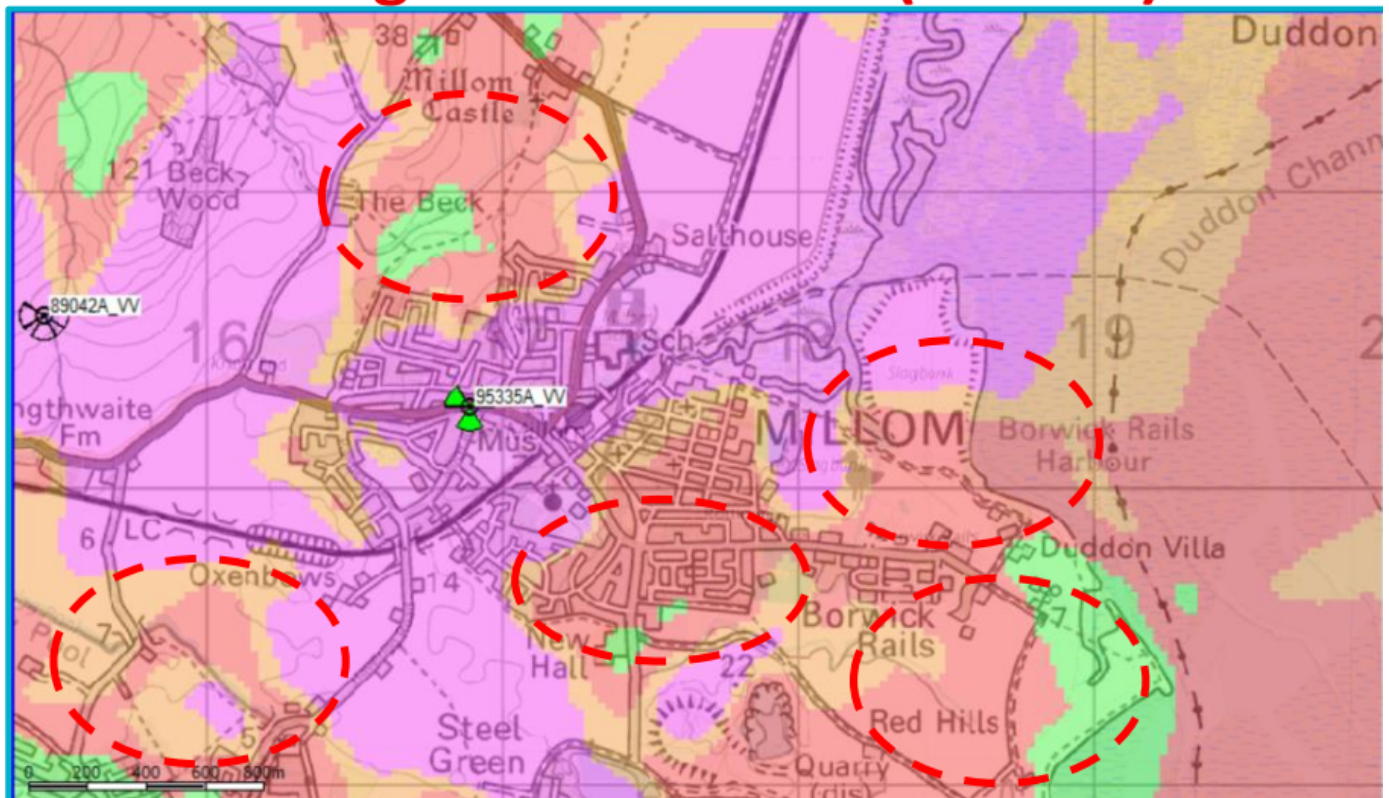
Please report any suspicious email to our [IT Helpdesk](#)

Good afternoon,

We just received a response from the radio planner regarding the proposed reduction in height. If the height of the proposed mast were reduced from 20m to 17.5m, it would have a significant impact on coverage in the area, as detailed in the attached justification and below. The impact would be most noticeable in the areas marked by red circles, where a reduction in height would shift the coverage from indoor suburban to in-car/rural, meaning that mobile devices would not be usable inside the properties in those areas.

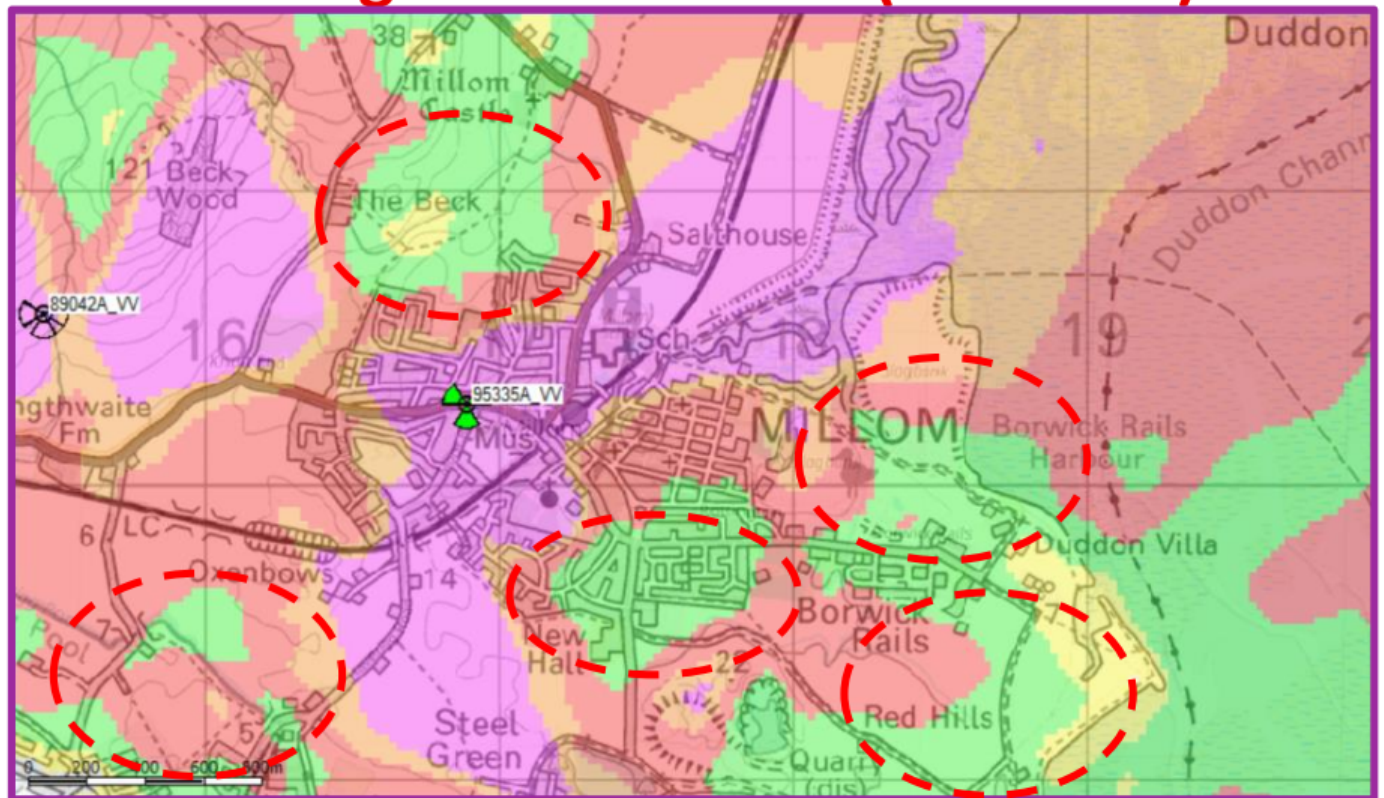
Coverage with a 20m mast:

L8 coverage –With 95335 (at 20m)



Coverage 17.5m mast:

L8 coverage –With 95335 (at 17.5m)



		Min	Max	Legend
1		-90		Indoor Dense Urban
2		-94		Indoor Urban
3		-102		Indoor Suburban
4		-110		In Car/Rural
5		-114		Outdoor

The currently agreed extension of time expires on 31/01/2025. If a further extension is needed, please let me know.

If you have any questions, don't hesitate to reach out.

Kind regards
Michal

Michal Laskowski | [MSc | Town Planner](#)
Clarke Telecom

Head Office: Clarke Telecom Ltd, Unit E, Madison Place, Northampton Road, Manchester, M40 5AG. Tel. +44 (0)161 785 4500.
Registered Office: 3125 Century Way, Thorpe Park, Leeds, LS15 8ZB. Registered in England No. 07524755.



This email and any files transmitted with it are CONFIDENTIAL and may contain legally privileged information intended solely for the use of the addressee. If you are not the intended recipient, please advise the sender or system administrator immediately by return email. This email was scanned for viruses prior to transmission. Renew Holdings plc (and its subsidiaries) however accept no responsibility for any viruses not revealed by such check and in accordance with good computing practice recipients should ensure that they are actually virus free.

Renew Holdings plc, registered in England & Wales, company number 650447. The Registered Office for Renew Holdings plc and subsidiary companies is Renew Holdings plc, 3125 Century Way, Thorpe Park, Leeds, LS15 8ZB.

From: Michal Laskowski

Sent: 24 January 2025 17:36

To: Nick Hayhurst

Subject: RE: 4/24/2384/0F1 - GRASS VERGE AT HORN HILL, MOOR ROAD, MILLOM (Our ref: 20786521)

Hi Nick/Christie,

Thank you for attending the meeting on Wednesday. Below is the additional information we discussed. If any further details are needed, please let me know.

1. Existing Mast Outside the Town.

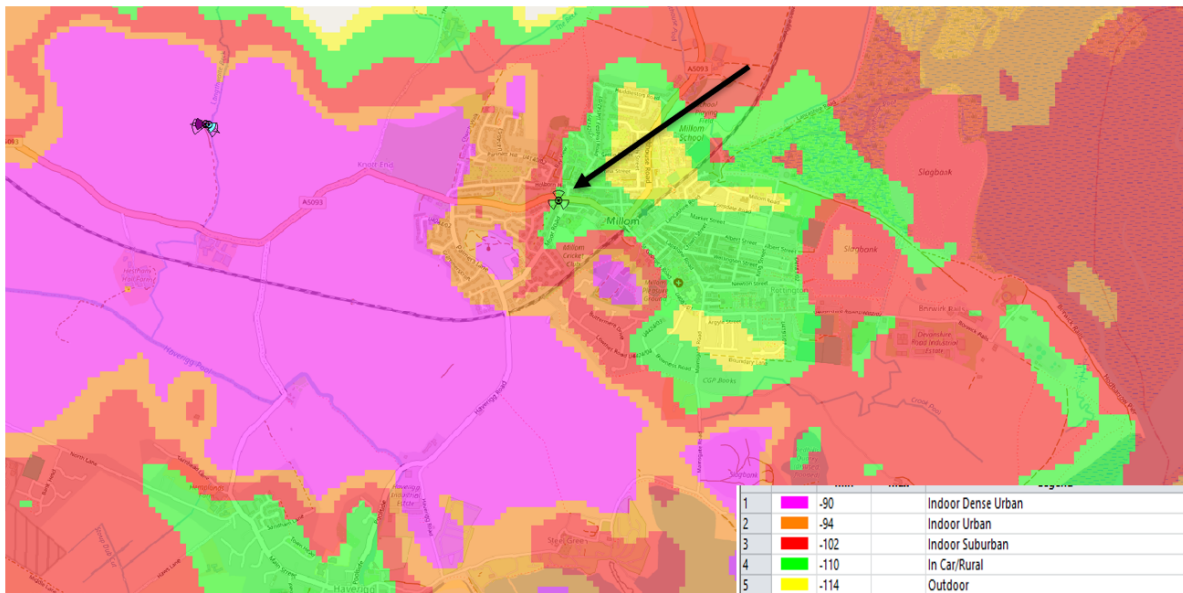
We can confirm that the existing mast to the west, outside the town, is 20m high. However, as mentioned by my colleague during the meeting, increasing its height will not deliver the required services to the target area due to the higher frequencies used by newer technologies.

By nature, 4G signals (which carry high data rates) do not travel over long distances, and 5G signals even less so. Their range is typically just a few hundred metres, depending on factors such as topography, building clutter, and vegetation, including trees, which can significantly reduce their effectiveness. As a result, 4G and 5G radio base stations need to be positioned close to areas of customer demand.

The operator requires a new site to provide improved 2G, 4G, and 5G coverage and capacity in this cell area. This new site is needed to fill a gap in the operator's network, which is already well established in the area. Consequently, the operator's search area for a new site is naturally smaller than it would be in an area without existing service provision, which severely limits the options for siting a new installation.

At present, there is a significant 'hole' in service provision, meaning most of the operator's customers in this area cannot use their devices as intended. The proposed installation will fill this partial gap for Vodafone. The coverage plots below illustrate the substantial improvement in 4G coverage that the proposed installation will provide in Millom. Although 5G coverage is not shown on these plots, it will follow the 4G footprint and cover a similar area. These coverage plots are indicative, and the range may vary due to factors such as the number of users connecting to the radio base station.

Existing Live 4G Coverage



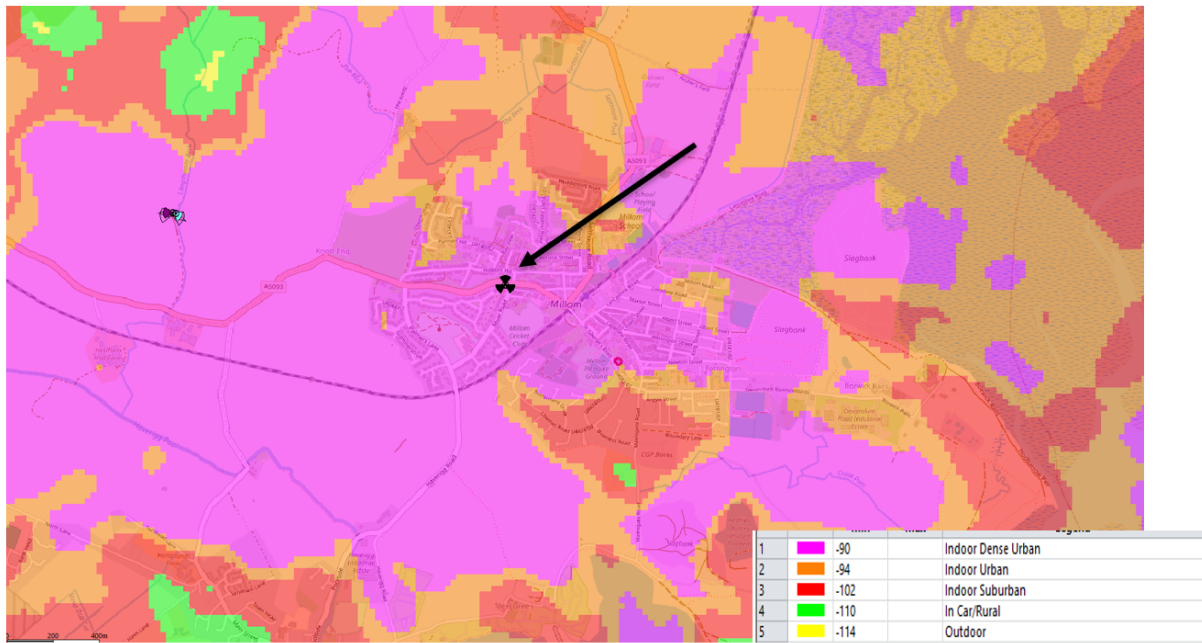
Insert Confidentiality Level in slide footer

2

03 October 2024



Existing Live 4G Coverage + Planned site 95335vf



Insert Confidentiality Level in slide footer

3

03 October 2024



The proposed radio base station will also enhance capacity in this cell area, where the operator's network is currently struggling. Individual base stations can only handle a certain number of calls or data transmissions at a time. If demand exceeds the base station's capacity, local network users will experience slower data download speeds and reduced call quality.

Capacity refers to the network's ability to handle a high volume of users and data traffic simultaneously without compromising the quality of service, such as call connectivity or internet speed. Even when coverage is strong and a phone shows a full signal, insufficient capacity can lead to poor performance as the radio base station becomes overwhelmed by high demand.

2. Search Area & Discounted Options.

Included below is a list of alternative sites with the reasons for their exclusion, along with a map of the search area outlined in yellow.

D1 – Streetworks - Footway of Lancashire Road, Rottington, Millom, Cumberland, England LA18 4AW, NGR E: 317275 N: 480156 - An installation at this location would be located close to the cell area, however it would be located within conservation area, and it was considered that it would have greater visual impact than the current proposal. Additionally, the footway at this location is too narrow to accommodate the operator's equipment. As such, it would lead to highway safety issues. A site in this location has therefore been discounted for this reason.

D2 – Rooftop - Rooftop of Tesco, Lancashire Road, Rottington, Millom, Cumberland, England LA18 4BX, NGR E: 317243 N: 480185 - Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.

D3 – Rooftop - Rooftop of St. George's Church, St George's Road, Rottington, Haverigg, Millom, Cumberland, England LA18 4JA, NGR E: 317154 N: 479983 - Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.

D4 – Rooftop - Rooftop of St. George's Rest Home, Church Walk, Rottington, Haverigg, Millom, Cumberland, England LA18 4JE, NGR E: 317110 N: 480015 - Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.

D5 – Greenfield - Land at Millom Cricket Club, Church Walk, Knott End, Haverigg, Millom, Cumberland, England LA18 4QX, NGR E: 316989 N: 480058 - An installation at this location would be on low ground and would not deliver the required level of coverage to the target area. This site has therefore been discounted for this reason.

D6 – Rooftop - Rooftop of Black Combe Junior School, Moor Road, Knott End, Haverigg, Millom, Cumberland, England LA18 5DT, NGR E: 316723 N: 480017 - Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.

D7 – Rooftop - Rooftop of Millom Army Cadet Force, Moor Road, Knott End, Haverigg, Millom, Cumberland, England LA18 5DS, NGR E: 316879 N: 480248 - Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.

D8 – Rooftop - Rooftop of Telephone Exchange, Moor Road, Knott End, Haverigg, Millom, Cumberland, England LA18 5DS, NGR E: 316892 N: 480183 - Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.

D9 – Rooftop - Rooftop of Fell House, Station Road, Rottington, Millom, Cumberland, England LA18 5BE, NGR E: 317192 N: 480265 - Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.

D10 – Rooftop - Rooftop of Whartons Garage, 1, Duke Street, Rottington, Millom, Cumberland, England LA18 5BB, NGR E: 317127 N: 480240 - Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.

D11 – Rooftop - Rooftop of Millom Palladium, St George's Road, Rottington, Millom, Cumberland, England LA18 5BA, NGR E: 317062 N: 480186 - Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. Additionally, the rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason.

D12 – Streetworks - Footway along Moor Road, Knott End, Haverigg, Millom, Cumberland, England LA18 5DS, NGR Various - An installation at this location would be located directly in front of residential frontages, which would have grater visual impact on the local amenity than the proposed site. Additionally, the footway at this location is too narrow to accommodate the operator's equipment. As such, it would lead to highway safety issues. A site in this location has therefore been discounted for this reason.

D13 – Streetworks - Footway along Queens Park, Knott End, Millom, Cumberland, England LA18 5DZ, NGR Various - An installation at this location would be located directly in front of residential frontages, which would have grater visual impact on the local amenity than the proposed site. A site in this location has therefore been discounted for this reason.

D14 – Streetworks - Footway along Holborn Hill, Knott End, Millom, Cumberland, England LA18 5BJ, NGR Various - An installation at this location would be located directly in front of residential frontages, which would have grater visual impact on the local amenity than the proposed site. Additionally, the footway at this location is too narrow to accommodate the operator's equipment. As such, it would lead to highway safety issues. A site in this location has therefore been discounted for this reason.

D15 – Streetworks - Footway along Cambridge Street, Rottington, Millom, Cumberland, England LA18 5BD, NGR Various - An installation at this location would be located directly in front of residential frontages, which would have grater visual impact on the local amenity than the proposed site. Additionally, the footway at this location is too narrow to accommodate the operator's equipment. As such, it would lead to highway safety issues. A site in this location has therefore been discounted for this reason.

D16 – Streetworks - Grass verge of A5093, Knott End, Millom, Cumberland, England LA18 5DR, NGR E: 316817 N: 480270 - An installation at this location would be positioned on a narrow grass verge along the road, with no pavement, making site access challenging. Additionally, during maintenance, the cabinet doors would open towards the road, potentially posing a highway safety risk. For this reason, a site at this location has been discounted.



3. Feasibility of Height Reduction.

Regarding the possibility of reducing the mast's height, we are currently consulting with the radio planner to determine if this can be achieved without compromising coverage, capacity, or ICNIRP compliance. I will provide an update on this as soon as possible.

Below is a photo of a similar radio base station located near Barrow-in-Furness. The nearer pole is 20m high, while the pole in the background is 17.5m. Both are situated close to residential dwellings but effectively address coverage and capacity needs in the area. This may help visualise how the proposed installation could appear.



Kind regards
Michal