

**September 17, 2021**

Mr. Derek Severson, Senior Planner  
City of Ashland, Department of Community Development  
51 Winburn Way  
Ashland OR 97520-2735

RE: Telecommunications Facility RF Site Review  
351 Walker Ave, Ashland, OR 97520  
GPS Coordinates: 42.188528/ -122.690097  
Map Tax Lot: 391E10CD100

Dear Mr. Severson,

This supplementary report discusses Applicant's responses to the radio-frequency (RF) aspects of the proposed SmartLink / New Cingular Wireless (AT&T) (Applicant) project in the City of Ashland, OR, as presented in our initial report of August 19, 2021 (the "Preliminary Report"). At that time we presented recommendations for Applicant to supplement the record with a corrected capacity plot, enhanced justification of the necessary antenna height, and clarification of human exposure calculations. Additional subsequent reports, if needed, will address any remaining questions or issues that arise during public hearings at the request of the city. The Preliminary Report contained a summary of our professional qualifications to render opinions regarding the application and background information related to other technical matters.

### **Site Details**

Applicant proposes an extension/rebuild of a light stanchion at the Southern Oregon University athletic field at 351 Walker Avenue. The extension/rebuild will place Applicant's antennas at a tip-height of 95 feet (CellMax antenna 12032x is 72.4" or 6.03' high placing the Antenna Centerline, ACL, at 92' above ground elevation). The NIER analysis information shows a configuration that will include radio-frequency bands "LTE 700, LTE 1900, LTE AWS & 5G 850." The AWS band is 1695 to 2200 MHz, and Applicant will use a portion of this band. Applicant states use of "5G", it is in the 850 MHz band. The 5G millimeter-wavelength bands are not currently proposed at this site.

### **Summary of Supplementary Findings**

1. Multiple transmission bands will be deployed at the proposed site. The calculations are now presented with more detail but still use a fixed 20 dB reduction of main lobe power. The antenna specification sheet shows less reduction for some of the operating bands. This difference represents a 6 dB difference if one was to perform a worst-case calculation of human exposure. A 6 dB difference, in this case,

- represents an increase in the predicted worst-case exposure level by a factor of four. While we would have encouraged correction of that figure for the record, correction of that error will not change the conclusion that the proposed site complies with the FCC threshold requirements.
2. The original permit application materials included an outdated chart titled “Serving Sector Capacity – December 2018 to December 2019” within the RF justification section. We recommended that Applicant update that figure with available current data. Applicant provided a new figure contains the updated information and shows the peak capacity trend approaching capacity at some point in the future. The information must be interpreted in light of the on-going COVID pandemic where reduction in sector demand is influenced by the lack of group gatherings that tend to increase demand. We anticipate the trend line will go sharper upward as normal activities resume at some point in the future.
  3. The proposed RF site will provide capacity relief to adjacent neighbor base station sites by providing a strong local signal to which nearby wireless devices can connect rather than drawing capacity from the limited 700 MHz spectrum of those neighbor sites. One anticipates continuing growth of wireless devices that will place additional demands on the proposed and neighbor sites. Those increasing demands imply the possibility that Applicant may decide to address those areas as part of their overall wireless network. We recommended the city understand the potential need to serve Applicant’s increasing service demands and how approval of the proposed site will influence the placement and height of future sites within its jurisdiction. Applicant has declined to provide such information under the claim that it is “proprietary.” Unfortunately, this defeats the opportunity for the City of Ashland to prepare and develop strategies to assist Applicant for future deployments in a more cooperative approach. Lacking that opportunity, this report contains the following page of two figures, to approximately the same scale, that allow comparison of the relevant municipal boundaries with the plot of proposed RF coverage by Applicant from the permit application materials to allow the city to assess areas where additional base stations may be required. Areas in gray are those location where RF coverage will be below operating threshold and, therefore, are targets for possible base station deployment. Capacity exhaustion of other existing sites may prompt Applicant to deploy sites to relieve that demand, as is the case with the present proposed site.

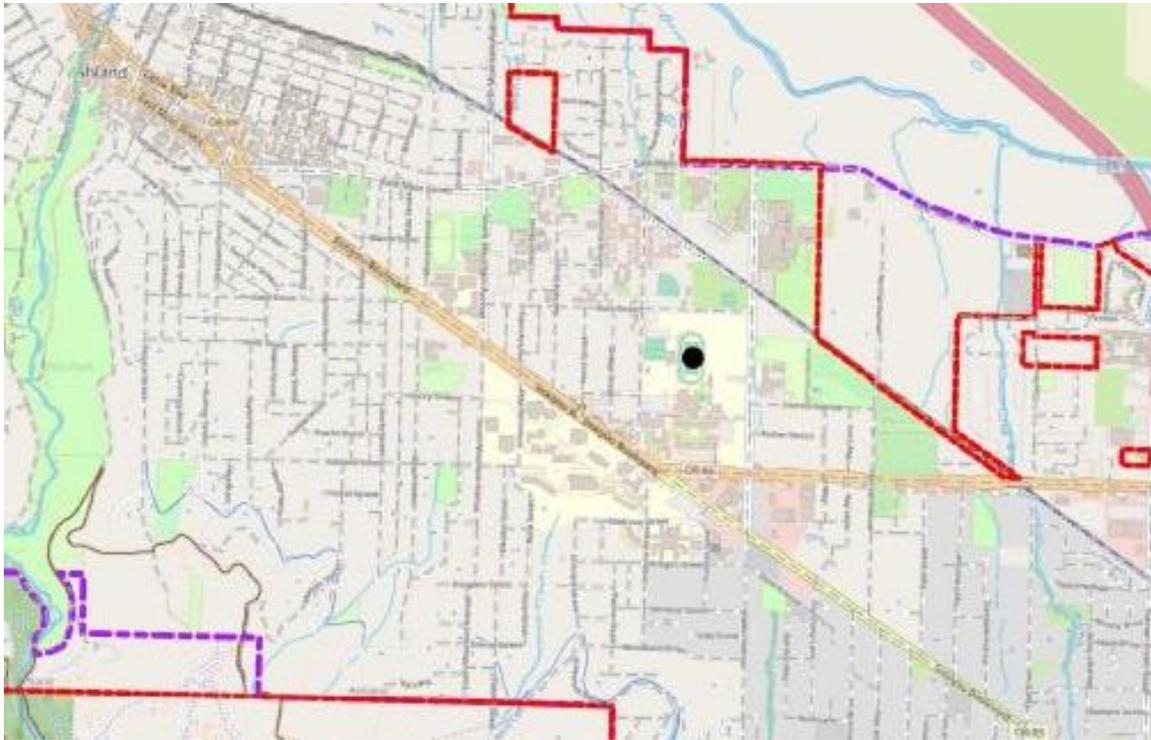


Figure 1: City of Ashland Boundary

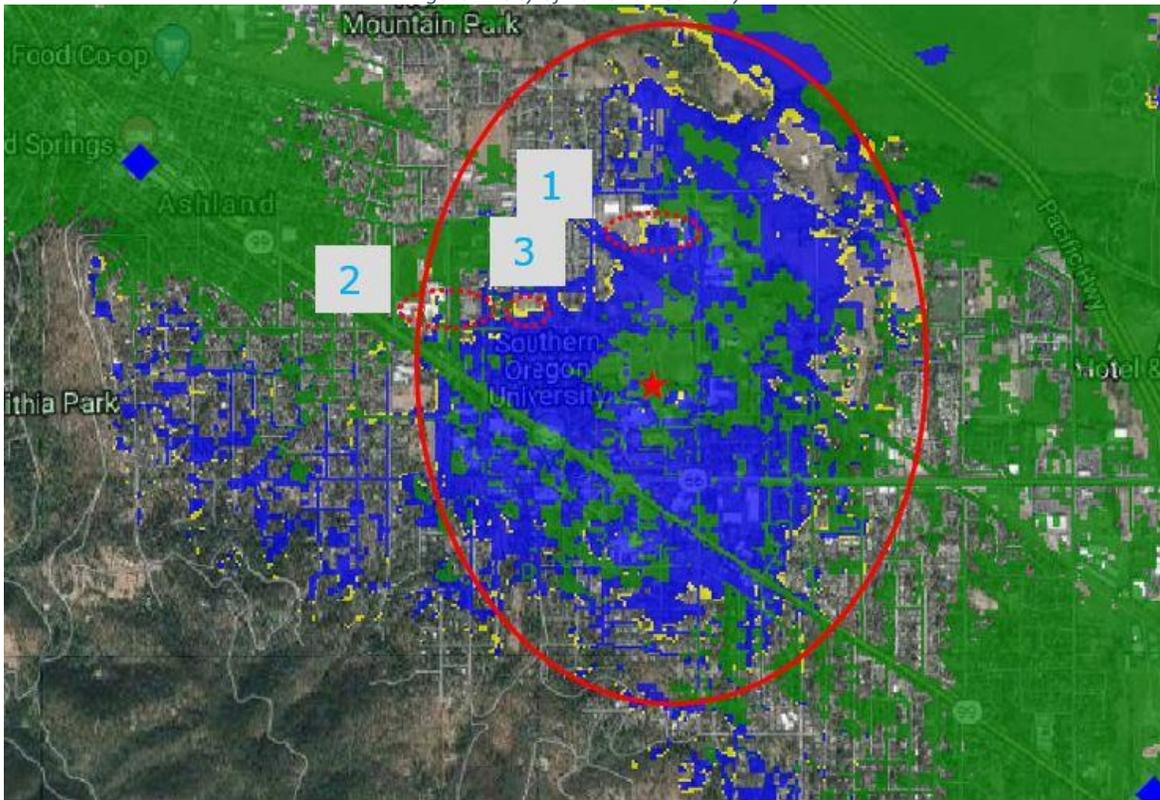


Figure 2: AT&T Proposed RF Target Area Coverage

Mr. Derek Severson, City of Ashland re proposed SmartLink site at SOU 9/17/21

The information in this report concerns the RF engineering issues related to the proposed project to assist the city in weighing the alternatives and planning for the future of the community. Engineering design choices implicate aesthetic and legal issues as well. However, this report must not be relied upon for any legal advice or direction. Legal advice about action on these issues must be obtained from the city's counsel.

Thank you once again for the opportunity to assist the City of Ashland. Please feel free to let us know if there are additional questions or other concerns at this time.

Sincerely,

A handwritten signature in blue ink, appearing to read 'W.P. Johnson', is written in a cursive style.

William P Johnson  
Consultant