July 14, 2020

CASE#: UM_2020-0004  
DATE FILED: 5/7/2020  
OWNER: CROWN CASTLE GT COMPANY LLC  
APPLICANT/AGENT: JASON OSBORNE  
REQUEST: To modify an existing Use Permit (UM 3-2009/2014), permitting AT&T Mobility to install new equipment in the existing compound area and increase the height of the existing tower by 20 ft. The request also includes installation of a 30 KW Generac Diesel Generator with a 190 gallon associated fuel storage tank, as well as various equipment and antenna additions to the tower itself.  
LOCATION: 9± miles northeast of Laytonville, lying on the north side of Spyrock Road (CR 323), 4.4± miles northeast of its intersection with US Highway 101, located at 3750 Spyrock Road, Laytonville (APN: 056-310-18).  
SUPERVISORIAL DISTRICT: 3  
STAFF PLANNER: KEITH GRONENDYKE  
RESPONSE DUE DATE: July 28, 2020

PROJECT INFORMATION CAN BE FOUND AT:  
https://www.mendocinocounty.org/government/planning-building-services/public-agency-referrals

Mendocino County Planning & Building Services is soliciting your input, which will be used in staff analysis and forwarded to the appropriate public hearing. You are invited to comment on any aspect of the proposed project(s). Please convey any requirements or conditions your agency requires for project compliance to the project coordinator at the above address, or submit your comments by email to pbs@mendocinocounty.org. Please note the case number and name of the project coordinator with all correspondence to this department.

We have reviewed the above application and recommend the following (please check one):

☐ No comment at this time.
☐ Recommend conditional approval (attached).
☐ Applicant to submit additional information (attach items needed, or contact the applicant directly, copying Planning and Building Services in any correspondence you may have with the applicant)
☐ Recommend denial (Attach reasons for recommending denial).
☐ Recommend preparation of an Environmental Impact Report (attach reasons why an EIR should be required).
☐ Other comments (attach as necessary).

REVIEWED BY:

Signature ___________________  Department ___________________  Date ________________
**OWNER:** CROWN CASTLE GT COMPANY LLC  
**APPLICANT/AGENT:** JASON OSBORNE  
**REQUEST:** To modify an existing Use Permit (UM 3-2009/2014), permitting AT&T Mobility to install new equipment in the existing compound area and increase the tower height by 20 ft. The request also includes installation of a 30 KW Generac Diesel Generator with a 190 gallon associated fuel storage tank, as well as various equipment and antenna additions.  
**LOCATION:** 9± miles northeast of Laytonville, lying on the north side of Spyrock Road (CR 323), 4.4± miles northeast of its intersection with US Highway 101, located at 3750 Spyrock Road, Laytonville (APN: 056-310-18).  
**APN:** 056-310-18  
**PARCEL SIZE:** 0.47 acres  
**GENERAL PLAN:** Remote Residential (RMR20)  
**ZONING:** Upland Residential (UR:20)  
**DISTRICT:** 3rd Supervisorial District (Haschak)

<table>
<thead>
<tr>
<th>ADJACENT GENERAL PLAN</th>
<th>ADJACENT ZONING</th>
<th>ADJACENT LOT SIZES</th>
<th>ADJACENT USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTH: Remote Residential (RMR 20)</td>
<td>Upland Residential (UR 20)</td>
<td>20 A±</td>
<td>Residential</td>
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<tr>
<td>EAST: Remote Residential (RMR 20)</td>
<td>Upland Residential (UR 20)</td>
<td>24.6 A±</td>
<td>Residential</td>
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<td>SOUTH: Remote Residential (RMR 20)</td>
<td>Upland Residential (UR 20)</td>
<td>20 A±, 38 A±</td>
<td>Residential</td>
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<tr>
<td>WEST: Remote Residential (RMR 20)</td>
<td>Upland Residential (UR 20)</td>
<td>28.5 A±</td>
<td>Residential</td>
</tr>
</tbody>
</table>

**ADDITIONAL INFORMATION:** THE COMPLETE SCOPE OF WORK IS AS FOLLOWS:

A. BRING POWER/ TELCO /FIBER TO SITE LOCATION  
B. NEW EQUIPMENT IN 15’-0”X20’-0” LEASE AREA IN EXISTING COMPOUND AREA  
C. INSTALL 20’-0” TOWER EXTENSION  
D. INSTALL AT&T APPROVED WALK IN CABINET (WIC) AND ASSOCIATED INTERIOR EQUIPMENT ON NEW 8’-0”X8’-0” CONCRETE PAD IN NEW LEASE AREA WITHIN EXISTING COMPOUND  
E. REMOVE EXISTING BRANCH DESIGN, AND INSTALL NEW BRANCH DESIGN BY OTHERS  
F. INSTALL (2) NEW GPS UNITS  
G. INSTALL (3) MOUNTS  
H. INSTALL (9) ANTENNAS (3) PER SECTOR  
I. INSTALL (8) RRUS (6) PER SECTOR  
J. INSTALL (2) RAYCAP D6 SURGE SUPPRESSION (SQUID) (1) PER ALPHA AND BETA SECTORS, (1) RAYCAP D9 SURGE SUPPRESSION SQUID PER GAMMA SECTOR  
K. INSTALL (3) FIBER TRUNKS (RUN INSIDE TOWER)  
L. INSTALL (7) DC TRUNKS (RUN INSIDE TOWER)  
M. INSTALL GENERAC DIESEL GENERATOR ON NEW 10’ x 4’ CONCRETE PAD IN EXISTING LEASE AREA  
N. INSTALL H-FRAME  
O. INSTALL CIENA ON (N) H-FRAME  
P. INSTALL METER AND MAIN BREAKER WITH GFCI OUTLET ON (N) H-FRAME  
Q. INSTALL TELCO CAN ON (N) H-FRAME  
R. INSTALL ICE BRIDGE  
S. INSTALL (1) MICROWAVE DISH  
T. INSTALL (3) RADIOS FOR NEW MICROWAVE DISH  
U. INSTALL (1) EW63 CABLE TO MICROWAVE  
V. INSTALL NEW LIGHTNING ROD  
W. INSTALL (1) NEW DUAL RING MOUNT FOR NEW MICROWAVE DISH  
X. INSTALL (1) 4.5” OD PLAIN END PIPE FOR NEW MICROWAVE DISH  
Y. INSTALL (1) 2.5” OD PLAIN END PIPE ATTACHED TO NEW DUAL RING MOUNT FOR STIFF ARM INSTALL  
Z. PAINT NEW EQUIPMENT TO MATCH (E) EQUIPMENT

**PROJECT BACKGROUND**
The subject site is bordered on all sides by a single 20 acre property that is improved with a single-family residence. Properties in this area are zoned Upland Residential and are either vacant or developed for residential use with the exception of Spy Rock Elementary School, located approximately 1,600 feet southwest of the project site. The topography of the parcel and surrounding area varies from steep terrain to gently rolling slopes. The facility is located on a relatively flat area and features an existing Wireless Communication Facility (WCF).

A similar request was submitted in 2014 and subsequently approved by the Planning Commission on December 18, 2014. The project, however, was unrealized after failure to make use of the permit within two years thereby triggering an automatic expiration.

Crown Castle maintains a 20 foot access and utility easement from Spyrock Road (CR# 323) to the WCF. The WCF will remain an unmanned facility that will operate 24 hours a day, 7 days a week and is secured with a 6 foot high chain link fence around the perimeter.

PREVIOUS APPLICATIONS ON-SITE:

- Phase 1 of Use Permit #U 26-98 was approved by the Planning Commission on May 6, 1999, allowing GTE Wireless, now Verizon Wireless, to add three (3) 15 foot tall whip antennas and one (1) 3.88 inch GPS antenna to an existing 20 foot wooden monopole at the subject site. Phase 2 of #U 26-98, which would have replaced the 20 foot tall monopole with a 75 foot monopole, adding nine (9) 4 foot panel antennas, two (2) 10 foot microwave dishes and four (4) 15 foot whip antennas, was denied by the Planning Commission.

- The original Use Permit was the subject of much controversy with the Planning Commission having received 59 letters in opposition to the project. Concerns cited by area residents included negative impacts to views, health hazards from radio frequency emissions, negative impacts on property values and the need to look for an alternative site that is not so heavily populated or in close proximity to a school. The Spyrock Elementary School had staff and students attend this previous Planning Commission meeting, all speaking in opposition. As a result of issues raised, the Planning Commission denied Phase 2 of the project as detailed above.

- Use Permit Modification #UM 26-98/2002 was approved by the Planning Commission on October 3, 2002 permitting the facility owner Crown Castle, on behalf of Verizon Wireless, to add 3 additional 15 foot tall Omni whip antennas (for a total of 6) to the 20 foot monopole along with the construction of a 12 foot by 15 foot equipment shelter.

- Use Permit #U 3-2009 approved by the Planning Commission on October 15, 2009, allowing Crown Castle, to replace an existing 20 foot tall monopole with a wireless telecommunication facility able to support two wireless providers (T-Mobile and Verizon Wireless) consisting of a 50 foot tall “monopine” (monopole designed to resemble a pine tree), six (6) panel antennas, a microwave dish and ground based equipment. The applicant had requested a 65 foot tall tower; however the Commission determined that a maximum facility height limit of 50 foot was appropriate for this location.

- Crown Castle made application and subsequently withdrew Use Permit Modification #UM 3-2009/2013 which was for an identical proposal as Use Permit Modification #UM 3-2009/2014.

- Use Permit Modification #UM 3-2009/2014 was approved by the Planning Commission on December 18, 2014, permitting AT&T Mobility to extend the height of an existing 50 foot tall “monopine” to 70 feet above ground level in order to support 9 new panel antennas. Request also included installation of a 138 square foot equipment shelter and a 50 kilowatt diesel generator with a 132 gallon diesel fuel tank to provide emergency backup power to the WCF.
  - While approved, this permit was not realized and subsequently the approval expired after the project was not realized.

ENCLOSURES

1) UM_2020-0004 Crown Castle – County Maps
2) UM_2020-0004 Crown Castle – Application
3) UM_2020-0004 Crown Castle – Project Background
4) UM_2020-0004 Crown Castle – Plan Sheets
5) UM_2020-0004 Crown Castle – RF Report
6) UM_2020-0004 Crown Castle – Photo Simulations
7) UM_2020-0004 Crown Castle – Site Plan
<table>
<thead>
<tr>
<th>ENVIRONMENTAL DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MAC: Laytonville MAC</td>
</tr>
<tr>
<td>2. FIRE HAZARD SEVERITY ZONE: Moderate</td>
</tr>
<tr>
<td>3. FIRE RESPONSIBILITY AREA: State Responsibility Area (SRA) – Pending</td>
</tr>
<tr>
<td>4. FARMLAND CLASSIFICATION: Grazing (G)</td>
</tr>
<tr>
<td>5. FLOOD ZONE CLASSIFICATION: N/A</td>
</tr>
<tr>
<td>6. COASTAL GROUNDWATER RESOURCE AREA: N/A</td>
</tr>
<tr>
<td>7. SOIL CLASSIFICATION: Western Soils (202)</td>
</tr>
<tr>
<td>8. PYGMY VEGETATION OR PYGMY CAPABLE SOIL: N/A</td>
</tr>
<tr>
<td>9. WILLIAMSON ACT CONTRACT: N/A</td>
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<td>10. TIMBER PRODUCTION ZONE: N/A</td>
</tr>
<tr>
<td>11. WETLANDS CLASSIFICATION: N/A</td>
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<tr>
<td>12. EARTHQUAKE FAULT ZONE: NO</td>
</tr>
<tr>
<td>13. AIRPORT LAND USE PLANNING AREA: N/A</td>
</tr>
<tr>
<td>14. SUPERFUND/BROWNFIELD/HAZMAT SITE: N/A</td>
</tr>
<tr>
<td>15. NATURAL DIVERSITY DATABASE: N/A</td>
</tr>
<tr>
<td>16. STATE FOREST/PARK/RECREATION AREA ADJACENT: N/A</td>
</tr>
<tr>
<td>17. LANDSLIDE HAZARD: N/A</td>
</tr>
<tr>
<td>18. WATER EFFICIENT LANDSCAPE REQUIRED: N/A</td>
</tr>
<tr>
<td>19. WILD AND SCENIC RIVER: N/A</td>
</tr>
<tr>
<td>20. SPECIFIC PLAN/SPECIAL PLAN AREA: N/A</td>
</tr>
<tr>
<td>21. STATE CLEARINGHOUSE REQUIRED: N/A</td>
</tr>
<tr>
<td>22. OAK WOODLAND AREA: N/A</td>
</tr>
<tr>
<td>23. HARBOR DISTRICT: Sec. 20.512 N/A</td>
</tr>
</tbody>
</table>
CASE: UM 2020-0004
OWNER: Crown Castle GT Company, LLC
APN: 056-310-18
APLCT: Jason Osborne
AGENT: Jason Osborne
ADDRESS: 3750 Spyrock Road, Laytonville

ZONING DISPLAY MAP

Zoning Districts
Assessors Parcels
APPLICATION FORM

APPLICANT
Name: Jason Osborne Phone: (415) 529-8868
Mailing Address: 3 Rovina Lane
City: Petaluma State/Zip: CA 94952 email: jason@beacondev.net

PROPERTY OWNER
Name: Marcia Miller Phone:
Mailing Address: PO Box 1590
City: Laytonville State/Zip: CA 95454 email:

AGENT
Name: Jason Osborne Phone: (415) 529-8868
Mailing Address: 3 Rovina Lane, Petaluma, CA 94952
City: CA 94952 State/Zip: CA 94952 email: jason@beacondev.net
Parcel Size: 20.120 acres (Sq. feet/Acres) Address of Property: 3760 Spyrock Rd., Laytonville, CA 95454
Assessor Parcel Number(s): 056-310-1700

TYPE OF APPLICATION:
- [ ] Administrative Permit
- [ ] Agricultural Preserve
- [ ] Airport Land Use
- [ ] CDP- Admin
- [ ] CDP- Standard
- [ ] Certificate of Compliance
- [ ] Development Review
- [ ] Exception
- [ ] Flood Hazard
- [ ] General Plan Amendment
- [ ] Land Division-Minor
- [ ] Land Division- Major
- [ ] Land Division-Parcel
- [ ] Land Division-Resubdivision
- [ ] Modification of Conditions
- [ ] Reversion to Acreage
- [ ] Rezoning
- [ ] Use Permit-Cottage
- [ ] Use Permit-Minor
- [ ] Use Permit-Major
- [ ] Variance
- [ ] Other

I certify that the information submitted with this application is true and accurate.

Signature of Applicant/Agent  4-22-20  See Attached  4-22-20
Signature of Owner  4-22-20

Mendocino County
MAY 07 2020
Planning & Building Services
SITE AND PROJECT DESCRIPTION QUESTIONNAIRE

The purpose of this questionnaire is to relate information concerning your application to the Department of Planning and Building Services and other agencies who will be reviewing your project proposal. Please remember that the clearer picture that you give us of your project and the site, the easier it will be to promptly process your application. Please answer all questions. Those questions which do not pertain to your project please indicate "Not applicable" or "N/A".

THE PROJECT

1. Describe your project. Include secondary improvements such as wells, septic systems, grading, vegetation removal, roads, etc.

   NEW EQUIPMENT IN 15'-0"X20'-0" LEASE AREA IN EXISTING COMPOUND AREA; INSTALL
   20'-0" TOWER EXTENSION; INSTALL AT&T APPROVED WALK IN CABINET (WIC) ON NEW
   8'-0"X8'-0" CONCRETE PAD IN NEW LEASE AREA WITHIN EXISTING COMPOUND; REMOVE
   EXISTING BRANCH DESIGN, AND INSTALL NEW BRANCH DESIGN; INSTALL (2) NEW GPS
   UNITS; INSTALL (3) MOUNTS; INSTALL (9) ANTENNAS (3) PER SECTOR; INSTALL (18) RRUS
   (6) PER SECTOR; INSTALL (2) RAYCAP DC6 SURGE SUPPRESSION SQUIDS AND (1) RAYCAP
   DC9 SURGE SUPPRESSION SQUID; INSTALL GENERAC DIESEL GENERATOR ON NEW
   10'-0"X4'-0" CONCRETE PAD IN EXISTING LEASE AREA; INSTALL H-FRAME; INSTALL CIENA
   ON (N) H-FRAME; INSTALL METER AND MAIN BREAKER WITH GFCI OUTLET ON (N) H-FRAME;
   INSTALL TELCO CAN ON (N) H-FRAME; INSTALL ICE BRIDGE; INSTALL (1) MICROWAVE DISH;
   INSTALL (3) RADIOS FOR NEW MICROWAVE DISH; INSTALL NEW LIGHTNING ROD TO NEW
   TOP OF TOWER; INSTALL (3) FIBER TRUNKS (RUN INSIDE TOWER); INSTALL (7) DC TRUNKS
   (RUN INSIDE TOWER); INSTALL (1) EW63 CABLE TO MICROWAVE (RUN INSIDE TOWER);
   PAINT NEW EQUIPMENT TO MATCH (E) EQUIPMENT

2. Structures/Lot Coverage

<table>
<thead>
<tr>
<th></th>
<th>Number of Units</th>
<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing</td>
<td>Proposed</td>
</tr>
<tr>
<td>Single Family</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Duplex</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Multifamily</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Other:</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Total Structures Paved</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Area Landscaped Area</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Unimproved Area</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

GRAND TOTAL (Equal to gross area of Parcel) N/A
3. If the project is commercial, industrial or institutional, complete the following:

   Estimated employees per shift: N/A
   Estimated shifts per day: N/A
   Type of loading facilities proposed: N/A

4. Will the proposed project be phased?  ☐ Yes  ☑ No  If yes, explain your plans for phasing:

5. Will vegetation be removed on areas other than the building sites and roads?  ☐ Yes  ☑ No  Explain:

6. Will the project involve the use or disposal of potentially hazardous materials such as toxic substances, flammables, or explosives?  ☐ Yes  ☑ No  If yes, explain:

7. How much off-street parking will be provided?

   Number of covered spaces  N/A
   Number of uncovered spaces  N/A
   Number of standard spaces  N/A
   Number of handicapped spaces  N/A

   Existing Number of Spaces  N/A
   Proposed Additional Spaces  N/A
   Total  N/A

8. Is any road construction or grading planned?  ☐ Yes  ☑ No  If yes, grading and drainage plans may be required. Also, describe the terrain to be traversed (e.g., steep, moderate slope, flat, etc.).

9. For grading or road construction, complete the following:

   A. Amount of cut  N/A  cubic yards
   B. Amount of fill  N/A  cubic yards
   C. Maximum height of fill slope  N/A  feet
   D. Maximum height of cut slope  N/A  feet
   E. Amount of import or export  N/A  cubic yards
   F. Location of borrow or disposal site  N/A
10. Does the project involve sand removal, mining or gravel extraction? □ Yes □ No
If yes, detailed extraction, reclamation and monitoring plans may be required.

11. Will the proposed development convert land currently or previously used for agriculture to another use? □ Yes □ No
If yes, how many acres will be converted? __________ acres. An agricultural economic feasibility study may be required.

12. Will the development provide public or private recreational opportunities? □ Yes □ No
If yes, explain below:

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

13. Is the proposed development visible from State Highway 1 or other scenic route? □ Yes □ No

14. Is the proposed development visible from a park, beach or other recreational area? □ Yes □ No

15. Does the development involve diking, filling, dredging or placing structures in open coastal water, wetlands, estuaries or lakes?

<table>
<thead>
<tr>
<th>Activity</th>
<th>□ Yes</th>
<th>□ No</th>
<th>Placement of structures in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diking</td>
<td></td>
<td></td>
<td>open coastal waters</td>
</tr>
<tr>
<td>Filling</td>
<td></td>
<td></td>
<td>wetlands</td>
</tr>
<tr>
<td>Dredging</td>
<td></td>
<td></td>
<td>estuaries</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>lakes</td>
</tr>
</tbody>
</table>

If so, amount of material to be dredged or filled? __________ cubic yards.

Location of dredged material disposal site?
____________________________________________________________________________________

Has a U.S. Army Corps of Engineers permit been applied for? □ Yes □ No

16. Will there be any exterior lighting? □ Yes □ No
If yes, describe below and identify the location of all exterior lighting on the plot plan and building plans.

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

17. Utilities will be supplied to the site as follows:
A. Electricity:
   □ Utility Company (service exists to the parcel)
   □ Utility Company (requires extension of service to site: _______ feet _______ miles)
   □ On Site Generation - Specify: ____________________________________________

B. Gas:
   □ Utility Company/Tank
   □ On Site Generation - Specify: ____________________________________________
   □ None

C. Telephone: □ Yes □ No

18. What will be the method of sewage disposal?
- □ Community sewage system - Specify supplier ________________________________
- □ Septic Tank
- □ Other - Specify: _______________________________________________________

19. What will be the domestic water source?
- □ Community water system - Specify supplier ________________________________
- □ Well
- □ Spring
- □ Other - Specify: _______________________________________________________

Z:\1. PBS Forms\COMPLETED Form\Planning Application-2015.docx Page - 4
20. Are there any associated projects and/or adjacent properties under your ownership?
   ☐ Yes ☐ No If yes, explain (e.g., Assessor's Parcel Number, address, etc.):

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

21. List and describe any other related permits and other public approval required for this project, including those required by other County departments, city, regional, state and federal agencies:
   FCC, which is filed by AT&T once Construction is completed.

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

22. Describe the location of the site in terms of readily identifiable landmarks (e.g., mailboxes, mile posts, street intersections, etc.):
   See Drawings

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

23. Are there existing structures on the property? ☐ Yes ☐ No
   If yes, describe below, and identify the use of each structure on the plot plan or tentative map if the proposal is for a subdivision.

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

24. Will any existing structures be demolished or removed? ☐ Yes ☐ No
   If yes, describe the type of development to be demolished or removed, including the relocation site, if applicable.

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________


26. Gross floor area of existing structures_____ square feet (including covered parking and accessory buildings). Gross floor area of proposed structures_____ square feet (including covered parking and accessory buildings).

27. Lot area (within property lines)___ square feet ___ acres.

28. Briefly describe the project site as it exists before the project, including information on existing structures and their uses, slopes, soil stability, plants and animals, and any cultural, historical or scenic aspects. Attach any photographs of the site that you feel would be helpful.
   Using existing cell site, increasing height, First Net (AT&T safety protocol) being installed. No other changes.

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

29. Briefly describe the surrounding properties, including information on plants, animals and any cultural, historic or scenic aspects. Indicate the type of land use (use chart below) and its general intensity. Attach any photographs of the vicinity that you feel would be helpful.
   See attached photosims.

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

30. Indicate the surrounding land uses:

   Vacant
   Residential Agricultural
   Commercial Industrial
   Institutional Timberland
   Other

   North     East     South     West
CERTIFICATION AND SITE VIEW AUTHORIZATION- SUBMIT ONLY ONE COPY

1. I hereby certify that I have read this completed application and that, to the best of my knowledge, the information in this application, and all attached appendices and exhibits, is complete and correct. I understand that the failure to provide any requested information or any misstatements submitted in support of the application shall be grounds for either refusing to accept this application, for denying the permit, for suspending or revoking a permit issued on the basis of such misrepresentations, or for seeking of such further relief as may seem proper to the County.

2. I hereby grant permission for County Planning and Building Services staff and hearing bodies to enter upon and site view the premises for which this application is made in order to obtain information necessary for the preparation of required reports and render its decision.

See Attached

Owner/Authorized Agent

4/1/2020

Date

NOTE: IF SIGNED BY AGENT, OWNER MUST SIGN BELOW.

AUTHORIZATION OF AGENT

I hereby authorize _______________________________ to act as my representative and to bind me in all matters concerning this application.

Owner

Date

MAIL DIRECTION

To facilitate proper handling of this application, please indicate the names and mailing addresses of individuals to whom you wish correspondence and/or staff reports mailed if different from those identified on Page 1 of the application form.

<table>
<thead>
<tr>
<th>Name</th>
<th>Name</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jason F. Osborne</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beacon Development, LLC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mailing Address</td>
<td>Mailing Address</td>
<td>Mailing Address</td>
</tr>
<tr>
<td>3 Rovina Lane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petaluma CA 94952</td>
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</tbody>
</table>

INDEMNIFICATION AND HOLD HARMLESS

ORDINANCE NO. 3780, adopted by the Board of Supervisors on June 4, 1991, requires applicants for discretionary land use approvals, to sign the following Indemnification Agreement. Failure to sign this agreement will result in the application being considered incomplete and withheld from further processing.

INDEMNIFICATION AGREEMENT

As part of this application, applicant agrees to defend, indemnify, release and hold harmless the County of Mendocino, its agents, officers, attorneys, employees, boards and commissions, as more particularly set forth in Mendocino County Code Section 1.04.120, from any claim, action or proceeding brought against any of the foregoing individuals or entities, the purpose of which is to attack, set aside, void or annul the approval of this application or adoption of the environmental document which accompanies it. The indemnification shall include, but not be limited to, damages, costs, expenses, attorney fees or expert witness fees that may be asserted by any person or entity, including the applicant, arising out of or in connection with the approval of this application, whether or not there is concurrent, passive or active negligence on the part of the County, its agents, officers, attorneys, employees, boards and commissions.

Applicant: ___________________________ Date: 4/15/2020

Z:\1.PBS Forms\COMPLETED Form\Planning Application-2015.docx
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PROJECT PROPOSED LOCATION

Crown Castle Telecommunication Facility
3750 SPYROCK RD, LAYTONVILLE, CA 95454
Site Name: CUMMINGS (814448)
APN: 056-310-1700

Nature of Request

Crown Castle seeks a Planning Department approval to modify an existing wireless telecommunication facility with at the above-listed location. The purpose of this facility would be to maintain coverage.

Project Description

This project is located on private property. The installation will not adversely affect the surrounding area and will have no impact on traffic other than during construction activities, which take less than 30 days.

The proposal includes the following scope of work:

1. BRING POWER / TELCO / FIBER TO SITE LOCATION
2. NEW EQUIPMENT IN 15'-0"X20'-0" LEASE AREA IN EXISTING COMPOUND AREA
3. INSTALL 20'-0" TOWER EXTENSION (DESIGNED BY OTHERS)
4. INSTALL AT&T APPROVED WALK IN CABINET (WIC) AND ASSOCIATED INTERIOR EQUIPMENT ON NEW 8'-0"X8'-0" CONCRETE PAD IN NEW LEASE AREA WITHIN EXISTING COMPOUND
5. REMOVE EXISTING BRANCH DESIGN, AND INSTALL NEW BRANCH DESIGN BY OTHERS
6. INSTALL (2) NEW GPS UNITS
7. INSTALL (3) MOUNTS
8. INSTALL (9) ANTENNAS (3) PER SECTOR
9. INSTALL (18) RRUS (6) PER SECTOR
10. INSTALL (2) RAYCAP DC6 SURGE SUPPRESSION (SQUID) (1) PER ALPHA AND BETA SECTORS, (1) RAYCAP DC9 SURGE SUPPRESSION SQUID PER GAMMA SECTOR
11. INSTALL (3) FIBER TRUNKS (RUN INSIDE TOWER)
12. INSTALL (7) DC TRUNKS (RUN INSIDE TOWER)
13. INSTALL GENERAC DIESEL GENERATOR ON NEW 10'-0"X4'-0" CONCRETE PAD IN EXISTING LEASE AREA
14. INSTALL H-FRAME
15. INSTALL Ciena ON (N) H-FRAME
16. INSTALL METER AND MAIN BREAKER WITH GFCI OUTLET ON (N) H-FRAME
17. INSTALL TELCO CAN ON (N) H-FRAME
18. INSTALL ICE BRIDGE
19. INSTALL (1) MICROWAVE DISH
20. INSTALL (3) RADIOS FOR NEW MICROWAVE DISH
21. INSTALL (1) EW63 CABLE TO MICROWAVE (RUN INSIDE TOWER)
22. INSTALL NEW LIGHTNING ROD TO NEW TOP OF TOWER
23. INSTALL (1) NEW DUAL RING MOUNT FOR NEW MICROWAVE DISH
24. INSTALL (1) 4.5" OD PLAIN END PIPE FOR NEW MICROWAVE DISH
25. INSTALL (1) 2.5" OD PLAIN END PIPE ATTACHED TO NEW DUAL RING MOUNT FOR STIFF ARM INSTALL
26. PAINT NEW EQUIPMENT TO MATCH (E) EQUIPMENT
Statement of Operations

This facility will be an unmanned facility operating 24 hours a day, 7 days per week, and 52 weeks per year. There will not be any employees as the facility is unmanned, entirely self-monitored and connects directly to a central office where sophisticated computers alert personnel to any equipment malfunction or breach of security. Upon completion of construction, fine-tuning of the facility may be necessary, meaning the site will be adjusted once or twice a month by a service technician for routine maintenance. Periodic testing and maintenance to keep the facility operational will require a service vehicle to access the property occasionally but no parking spaces will be required. No goods are sold on this facility location, materials to be used for construction are outlined in the zoning drawings included with the zoning package. This facility will not cause unsightly appearance in the area as it will be painted to jurisdictional requirements and will not have any solid or liquid waste as well as no requirement for additional water usage. There will be no advertising of the facility but there will be owner, safety, and required signing as set forth by the FCC and local jurisdiction.

Compliance with Federal Regulations

Crown Castle (as the owner of the facility) will not only comply with all FCC rules governing construction requirements, technical standards, interference protection, power and height limitations, and radio frequency standards, but ensure our respective tenants do as well. In addition, the company will comply with all FAA rules on site location and operation. We have also provided an EMF Study which reflects our adherence to FCC guidelines for RF exposure.

Federal Regulations Applicable to This Application

Federal law and the FCC’s rules implementing the law require that this permit application be processed to a final decision by this jurisdiction without delay. Specifically, because this application proposes to install new equipment on a new tower outside the public rights of way, this application must be approved or denied within one hundred fifty (150) days from its submission, today.¹

Moreover, pursuant to FCC regulations, this application is deemed complete 30 days after today, unless written notice is provided to the applicant.² If the application is incomplete, within the next 30 days written notice must be provided specifying any items missing to make the application complete.³ For each item missing, the written notice must specify the code provision, ordinance, application instruction, or otherwise publically-stated procedure that requires the submission of the information.⁴

The Telecommunications Act limits the authority of local jurisdictions by, among other restrictions, requiring approval within a reasonable period of time. In submitting this application, Crown Castle expressly reserves all of its Federal and State Rights, including, without limitation, its rights under federal

² Wireless Infrastructure Order at ¶¶ 257, 259.
³ Wireless Infrastructure Order at ¶¶ 259-260.
⁴ Id.
and state law to challenge the requirement for a discretionary permit for its proposed installation. Neither the act of submitting the application nor anything contained therein shall be construed as a waiver of any such rights.

Please send all written requests for additional information regarding this application to:

Jason F. Osborne
Beacon Development, LLC
3 Rovina Lane
Petaluma, CA 94952
(415) 529-8868
jason@beacondev.net
# Site Information

**Site Number:** CCL05009  
**Site Name:** CUMMINGS  
**Owner:** CROWN CASTLE  
**Address:** 3750 Spyrock Rd, Laytonville, CA 95454  
**City:** Laytonville  
**County:** Mendocino  
**Type:** MONOPINE/WIC

## Code Compliance

- [ ] City of Mendocino - Building Code
- [ ] California Occupational Safety and Health Administration (Cal/OSHA)
- [ ] California General Code - Regulations
- [ ] California General Code - Building Code
- [ ] California General Code - Electrical Code
- [ ] California General Code - Fire Code
- [ ] California General Code - Plumbing Code
- [ ] California General Code - Zoning Code

## Vicinity Map

[Insert Vicinity Map Image]

## Special Inspections

- [ ] Antenna Inspection
- [ ] Electrical Inspection
- [ ] Plumbing Inspection
- [ ] Fire Protection Inspection
- [ ] STC Specific Inspections

## Approvals

- [ ] City of Mendocino
- [ ] County of Mendocino
- [ ] California General Code - Building Code
- [ ] California General Code - Electrical Code
- [ ] California General Code - Fire Code
- [ ] California General Code - Plumbing Code
- [ ] California General Code - Zoning Code

## General Contractor Notes

(Add any necessary contractor-specific notes here)

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**Notes:**

- Add any additional notes or comments related to the site here.

---

**Prepared By:** [Insert Name]  
**Prepared On:** [Insert Date]  
**Printed By:** [Insert Name]  
**Printed On:** [Insert Date]  
**Reviewed By:** [Insert Name]  
**Reviewed On:** [Insert Date]  
**Checked By:** [Insert Name]  
**Checked On:** [Insert Date]  
**BUDGET:** [Insert Budget Information]

---

**Contact:**

- Email: [Insert Email]
- Phone: [Insert Phone Number]
ELECTRICAL NOTATION:

1. The symbols and codes used in the plans are explained in the American National Standards Institute (ANSI) standards on electrical drawings.

ELECTRICAL NOTES:

1. All work and materials shall be made in accordance with the latest edition of the National Electrical Code (NEC) and all other applicable codes and regulations.

2. All conduit runs shall be made in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

3. All electrical equipment, including switches, outlets, and fixtures, shall be installed in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

4. All electrical systems shall be tested and inspected in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

5. All electrical systems shall be protected by ground-fault circuit interrupters (GFCIs) in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

6. All electrical systems shall be equipped with overcurrent protective devices in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

7. All electrical systems shall be installed in compliance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

8. All electrical systems shall be marked in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

9. All electrical systems shall be tested in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

10. All electrical systems shall be inspected in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

11. All electrical systems shall be maintained in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

12. All electrical systems shall be tested in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

13. All electrical systems shall be inspected in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

14. All electrical systems shall be maintained in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

15. All electrical systems shall be tested in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

16. All electrical systems shall be inspected in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

17. All electrical systems shall be maintained in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

18. All electrical systems shall be tested in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

19. All electrical systems shall be inspected in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.

20. All electrical systems shall be maintained in accordance with the NEC and the latest edition of the American National Standards Institute (ANSI) standards on electrical drawings.
GENERAL CONSTRUCTION NOTES:

1. THIS WORK IS REQUIRED TO BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS AND CONDITIONS OF THE CONTRACT. THE WORK INCLUDES ALL REQUIREMENTS WITH RESPECT TO MATERIALES, EQUIPMENT, OPERATIONS, PROCEDURES AND LABORS NECESSARY TO COMPLETE ALL INSTALLATIONS DESCRIBED ON THE DRAWINGS.

2. THE CONTRACTOR SHALL SUBMIT AN INCOMPLETE PROJECT RECORD FOR THE PRIME CONTRACTOR'S REVIEW. THIS RECORD SHALL INCLUDE ALL SYMBOLOGIC REPRESENTATIONS, DRAWINGS AND WRITTEN INFORMATION CONCERNING THE INSTALLATION OF THE WORK.

3. CONTRACTOR SHALL PROVIDE ALLOY IDENTIFICATION AND SUPPLEMENTAL MATERIAL SPECIFICATIONS FOR ALLOYS IDENTIFICATION FOR ALL MATERIALS USED IN THE WORK.

4. CONTRACTOR SHALL INSTALL ALL MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS AND CONDITIONS OF THE CONTRACT. THE WORK INCLUDES ALL REQUIREMENTS WITH RESPECT TO MATERIALES, EQUIPMENT, OPERATIONS, PROCEDURES AND LABORS NECESSARY TO COMPLETE ALL INSTALLATIONS DESCRIBED ON THE DRAWINGS.

5. ALL CONTRACTORS SHALL BE ENABLED WITH THE CITY-PROVIDED EQUIPMENT AND TOOLS TO COMPLETE THE WORK.

6. ALL CONTRACTORS SHALL BE ENABLED WITH THE CITY-PROVIDED EQUIPMENT AND TOOLS TO COMPLETE THE WORK.

7. THE BUILDING DEPARTMENT MAY SUSPEND THE CONTRACTOR AT THEIR DISCRETION AT ANY TIME DURING THE PERFORMANCE OF THE WORK.

8. THE CONTRACTOR SHALL PROVIDE A DETAILED INSTRUCTION SHEET OF THE INSTALLATION PROCEDURES TO THE CUSTOMER.

9. ALL CONTRACTORS SHALL PROVIDE A DETAILED INSTRUCTION SHEET OF THE INSTALLATION PROCEDURES TO THE CUSTOMER.

10. ALL CONTRACTORS SHALL PROVIDE A DETAILED INSTRUCTION SHEET OF THE INSTALLATION PROCEDURES TO THE CUSTOMER.

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14. ALL CONTRACTORS SHALL PROVIDE A DETAILED INSTRUCTION SHEET OF THE INSTALLATION PROCEDURES TO THE CUSTOMER.

APPLICABLE CODES, REGULATIONS AND STANDARDS:

1. ALL CONTRACTORS SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION AT THE LOCATION OF THE WORK.

2. THE INSTALLATION OF THE ALLOYS IDENTIFICATION FOR SPECIFIC MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS.

3. THE INSTALLATION OF THE ALLOYS IDENTIFICATION FOR SPECIFIC MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS.

4. THE INSTALLATION OF THE ALLOYS IDENTIFICATION FOR SPECIFIC MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS.

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10. THE INSTALLATION OF THE ALLOYS IDENTIFICATION FOR SPECIFIC MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS.

SYMBOLS LEGEND:

[Diagram of symbols and notations used in the documentation]
Radio Frequency Emissions Compliance Report For AT&T Mobility

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<thead>
<tr>
<th>Site Name:</th>
<th>Cummings</th>
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<tbody>
<tr>
<td>Address:</td>
<td>3750 Spyrock Road</td>
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<tr>
<td></td>
<td>Laytonville, CA 95454</td>
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<tr>
<td>Report Date:</td>
<td>April 2, 2020</td>
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<td>Site Structure Type:</td>
<td>Monopine</td>
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<td>Latitude:</td>
<td>39.816072</td>
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<tr>
<td>Longitude:</td>
<td>-123.509408</td>
</tr>
<tr>
<td>Project:</td>
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Compliance Statement
Based on information provided by AT&T Mobility and predictive modeling, the Cummings installation proposed by AT&T Mobility will be compliant with Radiofrequency Radiation Exposure Limits of 47 C.F.R. §§ 1.1307(b)(3) and 1.1310. RF alerting signage and restricting access to the Monopine to authorized climbers that have completed RF safety training is required for Occupational environment compliance. The proposed operation will not expose members of the General Public to hazardous levels of RF energy and will not contribute to existing cumulative MPE levels on walkable surfaces at ground or in adjacent buildings by 5% of the General Population limits.

Certification
I, David C. Cotton, Jr., am the reviewer and approver of this report and am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation, specifically in accordance with FCC’s OET Bulletin 65. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

General Summary
The compliance framework is derived from the Federal Communications Commission (FCC) Rules and Regulations for preventing human exposure in excess of the applicable Maximum Permissible Exposure ("MPE") limits. At any location at this site, the power density resulting from each transmitter may be expressed as a percentage of the frequency-specific limits and added to determine if 100% of the exposure limit has been exceeded. The FCC Rules define two tiers of permissible exposure differentiated by the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. General Population / Uncontrolled exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment-related, or where persons cannot exercise control over their exposure. Occupational / Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure. Based on the criteria for these classifications, the FCC General Population limit is considered to be a level that is safe for continuous exposure time. The FCC General Population limit is 5 times more restrictive than the Occupational limits.
Table 1: FCC Limits

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Limits for General Population/ Uncontrolled Exposure</th>
<th>Limits for Occupational/ Controlled Exposure</th>
</tr>
</thead>
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<td>Power Density (mW/cm²)</td>
<td>Averaging Time (minutes)</td>
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<td>300-1500</td>
<td>f/1500</td>
<td>30</td>
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<tr>
<td>1500-100,000</td>
<td>1.0</td>
<td>30</td>
</tr>
</tbody>
</table>

$f=$Frequency (MHz)

In situations where the predicted MPE exceeds the General Population threshold in an accessible area as a result of emissions from multiple transmitters, FCC licensees that contribute greater than 5% of the aggregate MPE share responsibility for mitigation.

Based on the computational guidelines set forth in FCC OET Bulletin 65, Waterford Consultants, LLC has developed software to predict the overall Maximum Permissible Exposure possible at any location given the spatial orientation and operating parameters of multiple RF sources. The power density in the Far Field of an RF source is specified by OET-65 Equation 5 as follows:

$$S = \frac{\text{EIRP}}{4\pi R^2} \text{ (mW/cm}^2\text{)}$$

where EIRP is the Effective Radiated Power relative to an isotropic antenna and R is the distance between the antenna and point of study. Additionally, consideration is given to the manufacturers' horizontal and vertical antenna patterns as well as radiation reflection. At any location, the predicted power density in the Far Field is the spatial average of points within a 0 to 6-foot vertical profile that a person would occupy. Near field power density is based on OET-65 Equation 20 stated as

$$S = \frac{180}{\theta_{BW}} \cdot \frac{100 \cdot P_n}{\pi \cdot R \cdot h} \text{ (mW/cm}^2\text{)}$$

where $P_n$ is the power input to the antenna, $\theta_{BW}$ is the horizontal pattern beamwidth and $h$ is the aperture length.

Some antennas employ beamforming technology where RF energy allocated to each customer device is dynamically directed toward their location. In the analysis presented herein, predicted exposure levels are based on all beams at full utilization (i.e. full power) simultaneously focused in any direction. As this condition is unlikely to occur, the actual power density levels at ground and at adjacent structures are expected to be less that the levels reported below. These theoretical results represent worst-case predictions as all RF emitters are assumed to be operating at 100% duty cycle.

For any area in excess of 100% General Population MPE, access controls with appropriate RF alerting signage must be put in place and maintained to restrict access to authorized personnel. Signage must be posted to be visible upon approach from any direction to provide notification of potential conditions within these areas. Subject to other site security requirements, occupational personnel should be trained in RF safety and equipped with personal protective equipment (e.g. RF personal monitor) designed for safe work in the vicinity of RF emitters. Controls such as physical barriers to entry imposed by locked doors, hatches and ladders or other access control mechanisms may be supplemented by alarms that alert the individual and notify site
management of a breach in access control. Waterford Consultants, LLC recommends that any work activity in these designated areas or in front of any transmitting antennas be coordinated with all wireless tenants.

Analysis
AT&T Mobility proposes the following installation at this location:

- INSTALL (9) ANTENNAS (3) PER SECTOR
- INSTALL (18) RRUS (6) PER SECTOR
- INSTALL (1) MICROWAVE DISH WITH NEW COLLAR MOUNT
- INSTALL (3) RADIOS FOR NEW MICROWAVE DISH

The antennas will be mounted on a 65-foot Monopine with centerlines 52 feet above ground level. Proposed antenna operating parameters are listed in Appendix A. Other appurtenances such as GPS antennas, RRUs and hybrid cable below the antennas are not sources of RF emissions. Panel and microwave antennas have been installed at this site by other wireless operators. Operating parameters for these antennas considered in this analysis are also listed in Appendix A.

Figure 1: Antenna Locations

Power density decreases significantly with distance from any antenna. The panel-type antennas to be employed at this site are highly directional by design and the orientation in azimuth and mounting elevation, as documented, serves to reduce the potential to exceed MPE limits at any location other than directly in front.
of the antennas. For accessible areas at ground level, the maximum predicted power density level resulting from all AT&T Mobility operations is 3.3095% of the FCC General Population limits. Based on the operating parameters in Appendix A, the cumulative power density level at this location from all antennas is 3.8724% of the FCC General Population limits. Incident at adjacent buildings depicted in Figure 1, the maximum predicted power density level resulting from all AT&T Mobility operations is 4.18% of the FCC General Population limits. Based on the operating parameters in Appendix A, the cumulative power density level at this location from all antennas is 6.8819% of the FCC General Population limits. The proposed operation will not expose members of the General Public to hazardous levels of RF energy and will not contribute to existing cumulative MPE levels on walkable surfaces at ground or in adjacent buildings by 5% of the General Population limits.

Waterford Consultants, LLC recommends posting RF alerting signage with contact information (Caution 2B) at the base of the Monopine to inform authorized climbers of potential conditions near the antennas. These recommendations are depicted in Figure 2.

Figure 2: Mitigation Recommendations

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Recommendations

AT&T Mobility Access Location

Caution 2B required at the base of the Monopine

Materials –

1 Caution 2B Sign
## Appendix A: Operating Parameters Considered in this Analysis

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<thead>
<tr>
<th>Antenna #</th>
<th>Carrier</th>
<th>Manufacturer</th>
<th>Pattern:</th>
<th>Band (MHz)</th>
<th>Mech Az (deg)</th>
<th>Mech DT (deg)</th>
<th>H BW (deg)</th>
<th>Length (ft)</th>
<th>TPO (W)</th>
<th>Channels</th>
<th>Loss (dB)</th>
<th>Gain (dBi)</th>
<th>ERP (W)</th>
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Colocated antenna parameters based on industry standards
Radio Frequency Emissions Compliance Report For AT&T Mobility

Site Name: Cummings  
Address: 3750 Spyrock Road  
Laytonville, CA 95454  
Report Date: April 2, 2020

Site Structure Type: Monopine  
Latitude: 39.816072  
Longitude: -123.509408  
Project: New Build

Compliance Statement
Based on information provided by AT&T Mobility and predictive modeling, the Cummings installation proposed by AT&T Mobility will be compliant with Radiofrequency Radiation Exposure Limits of 47 C.F.R. §§ 1.1307(b)(3) and 1.1310. RF alerting signage and restricting access to the Monopine to authorized climbers that have completed RF safety training is required for Occupational environment compliance. The proposed operation will not expose members of the General Public to hazardous levels of RF energy and will not contribute to existing cumulative MPE levels on walkable surfaces at ground or in adjacent buildings by 5% of the General Population limits.

Certification
I, David C. Cotton, Jr., am the reviewer and approver of this report and am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation, specifically in accordance with FCC’s OET Bulletin 65. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

General Summary
The compliance framework is derived from the Federal Communications Commission (FCC) Rules and Regulations for preventing human exposure in excess of the applicable Maximum Permissible Exposure ("MPE") limits. At any location at this site, the power density resulting from each transmitter may be expressed as a percentage of the frequency-specific limits and added to determine if 100% of the exposure limit has been exceeded. The FCC Rules define two tiers of permissible exposure differentiated by the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. General Population / Uncontrolled exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment-related, or where persons cannot exercise control over their exposure. Occupational / Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure. Based on the criteria for these classifications, the FCC General Population limit is considered to be a level that is safe for continuous exposure time. The FCC General Population limit is 5 times more restrictive than the Occupational limits.
Table 1: FCC Limits

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<th>Frequency (MHz)</th>
<th>Limits for General Population/ Uncontrolled Exposure</th>
<th>Limits for Occupational/ Controlled Exposure</th>
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<td>Power Density (mW/cm²)</td>
<td>Averaging Time (minutes)</td>
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<td>30</td>
</tr>
<tr>
<td>300-1500</td>
<td>$f/1500$</td>
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</tr>
<tr>
<td>1500-100,000</td>
<td>1.0</td>
<td>30</td>
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</table>

$f=$Frequency (MHz)

In situations where the predicted MPE exceeds the General Population threshold in an accessible area as a result of emissions from multiple transmitters, FCC licensees that contribute greater than 5% of the aggregate MPE share responsibility for mitigation.

Based on the computational guidelines set forth in FCC OET Bulletin 65, Waterford Consultants, LLC has developed software to predict the overall Maximum Permissible Exposure possible at any location given the spatial orientation and operating parameters of multiple RF sources. The power density in the Far Field of an RF source is specified by OET-65 Equation 5 as follows:

$$S = \frac{EIRP}{4\pi R^2} \text{ (mW/cm}^2\text{)}$$

where EIRP is the Effective Radiated Power relative to an isotropic antenna and R is the distance between the antenna and point of study. Additionally, consideration is given to the manufacturers’ horizontal and vertical antenna patterns as well as radiation reflection. At any location, the predicted power density in the Far Field is the spatial average of points within a 0 to 6-foot vertical profile that a person would occupy. Near field power density is based on OET-65 Equation 20 stated as

$$S = \frac{\theta_{\text{BW}}}{180} \cdot \frac{100 \cdot P_{in}}{\pi \cdot R \cdot h} \text{ (mW/cm}^2\text{)}$$

where $P_{in}$ is the power input to the antenna, $\theta_{\text{BW}}$ is the horizontal pattern beamwidth and h is the aperture length.

Some antennas employ beamforming technology where RF energy allocated to each customer device is dynamically directed toward their location. In the analysis presented herein, predicted exposure levels are based on all beams at full utilization (i.e. full power) simultaneously focused in any direction. As this condition is unlikely to occur, the actual power density levels at ground and at adjacent structures are expected to be less that the levels reported below. These theoretical results represent worst-case predictions as all RF emitters are assumed to be operating at 100% duty cycle.

For any area in excess of 100% General Population MPE, access controls with appropriate RF alerting signage must be put in place and maintained to restrict access to authorized personnel. Signage must be posted to be visible upon approach from any direction to provide notification of potential conditions within these areas. Subject to other site security requirements, occupational personnel should be trained in RF safety and equipped with personal protective equipment (e.g. RF personal monitor) designed for safe work in the vicinity of RF emitters. Controls such as physical barriers to entry imposed by locked doors, hatches and ladders or other access control mechanisms may be supplemented by alarms that alert the individual and notify site
management of a breach in access control. Waterford Consultants, LLC recommends that any work activity in these designated areas or in front of any transmitting antennas be coordinated with all wireless tenants.

**Analysis**

AT&T Mobility proposes the following installation at this location:

- INSTALL (9) ANTENNAS (3) PER SECTOR
- INSTALL (18) RRUS (6) PER SECTOR
- INSTALL (1) MICROWAVE DISH WITH NEW COLLAR MOUNT
- INSTALL (3) RADIOS FOR NEW MICROWAVE DISH

The antennas will be mounted on a 65-foot Monopine with centerlines 52 feet above ground level. Proposed antenna operating parameters are listed in Appendix A. Other appurtenances such as GPS antennas, RRUs and hybrid cable below the antennas are not sources of RF emissions. Panel and microwave antennas have been installed at this site by other wireless operators. Operating parameters for these antennas considered in this analysis are also listed in Appendix A.

![Antenna Locations](image)

Figure 1: Antenna Locations

Power density decreases significantly with distance from any antenna. The panel-type antennas to be employed at this site are highly directional by design and the orientation in azimuth and mounting elevation, as documented, serves to reduce the potential to exceed MPE limits at any location other than directly in front
of the antennas. For accessible areas at ground level, the maximum predicted power density level resulting from all AT&T Mobility operations is 3.3095% of the FCC General Population limits. Based on the operating parameters in Appendix A, the cumulative power density level at this location from all antennas is 3.8724% of the FCC General Population limits. Incident at adjacent buildings depicted in Figure 1, the maximum predicted power density level resulting from all AT&T Mobility operations is 4.18% of the FCC General Population limits. Based on the operating parameters in Appendix A, the cumulative power density level at this location from all antennas is 6.8819% of the FCC General Population limits. The proposed operation will not expose members of the General Public to hazardous levels of RF energy and will not contribute to existing cumulative MPE levels on walkable surfaces at ground or in adjacent buildings by 5% of the General Population limits.

Waterford Consultants, LLC recommends posting RF alerting signage with contact information (Caution 2B) at the base of the Monopine to inform authorized climbers of potential conditions near the antennas. These recommendations are depicted in Figure 2.

**Compliance Requirement Diagram (Access Location)**

![Compliance Requirement Diagram](image-url)

**Figure 2: Mitigation Recommendations**

- Caution 2B

- AT&T Mobility Access Location
- Caution 2B required at the base of the Monopine
- Materials – 1 Caution 2B Sign
### Appendix A: Operating Parameters Considered in this Analysis

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<th>Antenna #</th>
<th>Carrier</th>
<th>Manufacturer</th>
<th>Pattern:</th>
<th>Band</th>
<th>Mech Az (deg)</th>
<th>Mech DT (deg)</th>
<th>H BW (deg)</th>
<th>Length (ft)</th>
<th>TPO (W)</th>
<th>Channels</th>
<th>Loss (dB)</th>
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Collocated antenna parameters based on industry standards