From: Amy Atkinson
To: Doraida Arias
Subject: Proposed cell tower in Homesteads
Date: Friday, May 15, 2026 9:02:01 PM

Sandoval County Director of Planning and Zoning

I write to object to the placement of a 75 ft cell tower in the heart of the Placitas community. This plan should never have seen the light of day. It directly conflicts with the existing Placitas Area Plan approved by Sandoval County. The community's plan requires viewshed protection and limits building heights.

In addition:

- 55 feet of bare steel below a 20-ft shroud is hardly protecting our viewshed, and cannot in any way be considered a "stealth" design.
- The tower is only 46′9″ from the northwest property line — 57% of the required 82.5 ft setback.
- Engineered for 3 carriers (Verizon, AT&T, T-Mobile) with 200- amp electrical and fiber vault, but photo simulations show only one carrier.
- The site is zoned CD-WP — a Water Protection overlay. Placitas relies entirely on private wells drawing from a fractured rock aquifer. Three carriers mean three banks of batteries, three sets of equipment with associated chemicals, and foundation drilling into fractured rock. No hydrological impact assessment was performed. Placitas has no municipal water. Every home depends on wells drawing from a fractured rock aquifer. This is a community with finite water, and no one has assessed what this facility does to it. This is New Mexico, where water is a limited and treasured resource, not to be used thoughtlessly.
- Under federal law — Section 6409 of the Spectrum Act — once a tower is classified as "existing," the county must approve modifications within 60 days. No public hearing. No community input. No discretion. FCC rules allow a 20-foot height increase — so 75 feet becomes 95 feet by right.

- Peer-reviewed research: 9.78% decline when a tower is visible (Affuso et al., 2018). Estimated $24 million aggregate impact across 555 Placitas homes.

Many say this will help cell service in our community, but our landscape belies that argument. A far better idea is WiFi satellites or small cells such as T-Mobile has distributed around the area.

Please vote against this monstrosity.
-Amy Atkinson
Cedar Creek, Placitas

From: Ann Lynch
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 6:55:25 AM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

Four years ago I chose 50 Camino Barranca as my retirement home. The two things that mattered most were quiet and views — and this location delivered both. We sit on the patio facing the direction of the proposed tower site.

The proposed 75-foot tower will stand in that view permanently. And I mean permanently. From what I understand about federal rules, once a tower like this is approved, some kinds of future modifications — adding carriers, swapping equipment — go forward without the public process we are going through now. The conditions the County attaches at this hearing are, in large measure, the conditions the community has to live with. That makes this a time to be careful. I want the Commission to understand that approving this application is not a step that can easily be revisited.

Regarding property values, I chose Placitas in part because I expected it to hold its value — a prosperous neighborhood in a natural setting, with wonderful views intact, protected by a plan that the County spent years preparing. A 75-foot tower visible from my kitchen, living room and patio changes the character of my property. It changes the character of every property in Placitas. Studies have documented negative impacts to homes with direct sight lines to similar towers. This tower will be visible from homes on three sides. When the time comes to sell, the view will be part of what a buyer sees — and what this structure does to it will be part of the calculation. Because the proposed tower is at the entrance Placitas, it will negatively affect almost everyone who lives there, even those who can't see the tower from their homes. This tower will be "front-and-center", a defining feature of the community. It's not really a "not in my backyard" issue - it's "in your face".

I also want to note that I am an AT&T customer with good service in Placitas. Whatever gap Verizon's application points to, it is not my experience of coverage here, and it does not appear to reflect the experience of most of my neighbors. The costs of this proposal - permanent visual impact, property values, the character of a community people chose carefully — are borne by those of us who live here. The benefit has not been shown to be commensurate. I don't understand why the County proposes to permanently diminish the tax basis of so many homes. I am asking the Commission to deny this application.

Sincerely,

Ann M Lynch
50 Camino Barranca
Placitas, NM

From: Barbara Burzillo
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 11:32:36 AM

Re: Application CU-26-001

Dear Commissioners,

Every time I pull into Homestead Plaza — for dinner on the patio at Blades Bistro, or just to see neighbors at one of our outdoor concerts or the sellers market on a weekend afternoon — I'm reminded of why I moved to Placitas more than 10 years ago. The community I was looking for turned out to be right there, at the gateway to this place. A 75-foot industrial tower erected adjacent to that outdoor patio changes what that gathering feels like in ways no stealth canister design can fix. The restaurant and concert outdoor seating sits in the shadow of exactly where the tower would stand.

I have a Verizon phone, and my service at home and on the road is working. The application's own RF deck defines coverage as "providing service where service does not exist, calls drop, or 'no service'" and then paints my area as if those conditions happen every day. They don't, not in my experience. I have a booster in my home that resolved indoor issues due to thick adobe walls and chicken-wired stucco exterior. Parts of the RF analysis itself appear to have been prepared for a different site entirely — the report references a California location and uses rooftop-analysis language that has nothing to do with a ground-mounted tower in Placitas. The application is asking the County to act on a coverage claim about the place I live, which does not match the place I live.

I also noticed that among the RF deck's stated objectives for this site is "Offload surrounding sites in the area." That is not a Placitas benefit. That is a benefit to Verizon's network somewhere else. The visual impact lands here; part of the stated purpose goes elsewhere. That is not a trade I think this community should be asked to make.

The tower would be visible from my dining room windows, my bedroom, patios, and pool area. The open desert landscape is the reason this address means something — to me and to any future buyer who will stand where I stand and see what I see. A 75-foot monopole does not disappear into that landscape, and whatever the County approves at this hearing is, in large part, what this community lives with permanently. Federal rules require the County to approve a range of future modifications to an approved tower without the full public process we're currently undergoing. The conditions written into any approval today are the conditions that travel with this structure.

For all of these reasons, I am asking the Commission to deny this application.

Sincerely,

Barbara Burzillo
46 Camino Barranca
Placitas, NM
bburzillo@gmail.com

From: bboudro@nmia.com
To: Planning and Zoning Main
Subject: Opposition to Application CU-26-001
Date: Monday, May 18, 2026 3:40:05 PM
Importance: High

Dear Members of the Sandoval County Planning and Zoning Commission,

My husband and I moved to Tierra Madre Court eight years ago because of the semi-rural character of Placitas, the beautiful landscape with unobstructed views, and our community gathering place at Homestead Plaza – a community market, a restaurant with a patio where neighbors linger, outdoor concerts on warm evenings, a farmers market on weekends, and other businesses. That is the community we chose. The proposed tower would stand directly over that patio, as a monstrous eyesore, more than twice as tall as any telephone pole, and with a 18 foot diameter “shroud” at its top.

A 75-foot structure with cooling equipment running at its base would not only change the character of the neighborhood significantly, it would also reduce our property values.

The visual and property-value consequences of the intended cell tower are real. A 75-foot structure on the corner property of Tierra Madre Rd and NM-165 becomes the first thing anyone sees entering Placitas and would be a fixed feature of the skyline for homes in every direction. Research on comparable situations has documented meaningful property-value losses for homes with visible tower exposure – and the homes near this site are the community my neighbors and I invested in. Those are not abstract concerns.

As Verizon knows – and I would think that Sun State is aware of this – there is an alternative to a cell tower: Verizon could simply add to its already existing small antennas in the area targeted with its application, in places where its own cell signals may be spotted or be not reliable.

The site selection record for the cell tower on an approximately just 4 acre lot adjoining Highway 165 on its South side, Homestead Plaza on its East side and just residential properties immediately to the North and West does not show that the applicants have satisfied the County’s priority order which puts residential areas at the very bottom. An applicant must conclusively demonstrate why nothing else works. The applicants started at the Fire Station, which ranks much higher, and when they, as they claim in the records, couldn’t come to terms on a lease, they ended up at a vacant lot in a residential area. What I don’t see in the application is any account of what was looked at between the Fire Station and where they landed.

I am asking the Commission to deny this application.

Sincerely,

Beate Boudro
10 Tierra Madre Ct.
Placitas, NM 87043

From: Brett Pantalone
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Sunday, May 17, 2026 10:00:26 PM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

Every morning I drive down NM-165 past the corner of Tierra Madre on my way to work. Seven years of that drive have made the landscape feel like mine in the way a place only becomes yours after time. So when I read the application for a 75-foot tower at that corner, my first reaction was not abstract — it was immediate and personal. That stretch of open desert, with single-story homes set back on large lots and the Sandoval foothills behind them, is what Placitas looks like to every resident commuting out and every visitor coming in. A structure roughly the height of a six-story building dropped into that setting changes what the place is.

The County zoned this parcel for a shopping center. That's the specific, stated purpose written into the rules adopted for this lot. A 75-foot industrial monopole with a fenced equipment compound is not a shopping center, and the application never engages with that mismatch. It describes the zoning as plain CD-WP and moves on, without once addressing the more specific rules the County adopted for this parcel or explaining how a tower fits the purpose those rules were written to serve. The County's own ordinance gives it authority to deny a tower whose use runs contrary to the stated purpose of a parcel's zoning designation. That authority exists for exactly this situation.

On summer evenings, Homestead Plaza — the gateway to Placitas, right next to the proposed tower site — is where people in this community actually gather. A community market, an art gallery, a restaurant with outdoor seating, outdoor concerts. The restaurant's patio would sit directly beneath the proposed structure, with cooling equipment running at its base. A coyote fence around the ground compound and a brown-painted canister do not change what that patio feels like when you are sitting under a 75-foot tower. The County's rules give it authority to deny a tower that conflicts with the character of a neighborhood; a working community gathering place directly beneath industrial infrastructure is that conflict in plain sight.

One more thing: the application does not include an FAA evaluation confirming what lighting the proposed height requires at this location. That evaluation belongs in the application, and it is not there.

I am asking the Commission to deny this application.

Sincerely,

Brett Pantalone
20 Bluebird Road
Placitas, NM
--
Brett Pantalone
Placitas, New Mexico USA
mailto:brett.pantalone@gmail.com

From: C. Edwin Garner
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 12:20:37 PM

Re: Application CU-26-001

Dear Commissioners,
I am the organizer and leader of the FB group "Tower Defense" (165 members) and also the organizer and owner of Noplacitastower.org, a web site put in place for those who do not have Facebook access.

Thirteen years ago my partner and I bought our home in Placitas specifically for what we could see from it — the open desert, the arroyo, the Sandia foothills behind. That view is the reason we are here. From our patio, across the arroyo, the proposed tower site is visible. A 75-foot monopole would occupy that view every day for the rest of our time in this house and for whoever buys it after us.

Our decision to move here was augmented by our knowledge of a Plan to preserve this landscape. The addition of a giant antenna in the center of the community which uniformly bans structures over ~20 ft and towers outright is anathema to Placitas area plan. We have the Placitas Area Plan which assures that the rural character of Placitas is preserved, created by Placitans.

The placement of this tower by an out of state company which will profit greatly with a 99 year lease is a means of profiting off of New Mexicans while extracting that value from Placitas in terms of its impact on home values and tax revenue. Please note we plan to challenge tax valuations based on the impact on our home value if the tower is erected.

I am concerned that there will be no impact on cell coverage for us because line of sight is not being considered and those of us in arroyos and canyons will still receive no additional signal.
The County has a priority order for where towers should go. County-owned property sits near the top. Residential-zoned areas sit at the very bottom. The applicant tried the Fire Station first — the second-highest category on that list — and when the lease talks broke down, the application moved straight to a vacant lot in a residential area, the lowest priority the County recognizes. The gap between those two is four priority categories — industrial, commercial, agricultural, and a full survey of existing towers and other suitable structures within four miles — and the application addresses none of them. One sentence covers the entire alternatives question.

The sponsor also says explicitly that "we couldn't get a lease here so this is the only site we have" is not an acceptable reason to bypass higher-priority sites — and that is exactly the record this application presents. Beyond that, the application contains no account of small cells: antennas on utility poles, building facades, and other existing structures that the County's rules cover under the phrase "other suitable structures." T-Mobile users in Placitas get noticeably better service than Verizon customers do, and they get it through small cells on existing infrastructure, not through new 75-foot towers. Verizon's application does not address why its answer here has to be different.

Noise impact will be real as the application has no information about diesel generators despite being part of the design. There are no noise tests for up to 3 carrier centers running on diesel engines in an area that by Verizons own measures in the application rarely exceeds 30 dB. There is no provision for fire risk though a 200A service will drive electrical equipment that would otherwise not be here. The sponsors own application states that the tower and the others likely planned in Placitas will be primarily for capacity offloading, helping internal logistics for Verizon and not providing additional coverage for those who need it.

This tower because of it height and the hills between it and the village will do NOTHING for the Placitas villagers who need improved coverage the absolute most. Single viewpoint GIS analysis has shown this to be the case. This application is therefore deceptive promising improved coverage yet being oriented towards capacity shifting for data not improved voice coverage. So Placitans lose value for nominal cell impact while the phone company gains.

The application also carries signs of not having been prepared for this site. The RF compliance report is internally labeled with a California site name, uses rooftop-analysis software, and refers to "ROOF Area" — language that fits a California rooftop installation, not a ground-mounted monopole in Placitas.

The applicant's own RF analysis also states that one of this tower's objectives is to "offload surrounding sites in area" — meaning part of the stated purpose is to relieve pressure on Verizon's other towers in the region, not to provide coverage to Placitas residents.

The application does not include an FAA evaluation showing whether any lighting is required at this height.

Importantly, the parcel carries a specific set of binding development conditions adopted when the County zoned it for a shopping center — conditions the application never acknowledges, treating the zoning as plain CD-WP throughout. The applicant has the burden of demonstrating compliance with every applicable requirement. From what I can read in the materials filed, that burden has not been met.

I have lived in Placitas for over ten years. I organized the community response to this application because the view from this place — from homes, from the road, from Homestead Plaza where my neighbors gather for dinner and outdoor concerts on summer evenings — is what everyone here chose when they chose to be here. The County zoned this lot for a shopping center.

A 75-foot industrial monopole, placed at the gateway to Placitas by an out-of-state company holding a 99-year lease, is not a shopping center.

The application should be denied.

Sincerely,

C Edwin Garner, PhD
46 Camino Barranca, Placitas, NM
Placitas, NM
505-252-2311

From: Carl Koop
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Sunday, May 17, 2026 4:34:09 AM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

Every day I drive in and out of Placitas on NM-165, and in four years of living here I have come to understand that this stretch of road — where the proposed tower would stand — is how our community announces itself to everyone who approaches it. That framing matters when I consider what the application actually shows about how this location was chosen.

The County's rules establish a clear order of preference for where a new tower should go. County-owned property sits near the top; residential-zoned areas sit at the very bottom. The applicant's own record shows they started at the Fire Station — a County-owned property well up the list — and when the lease terms could not be agreed upon, they ended up at a vacant lot in a residential area, the least preferred category the County's rules recognize. A lease negotiation that did not come together is not, under those rules, a sufficient reason to skip everything in between. The rules say so explicitly: an applicant cannot justify bypassing higher-priority sites simply by pointing to the one site they managed to lease.

The application also doesn't address what was considered in the middle — priorities three, four, and five don't appear anywhere in the materials in any meaningful way. And the written requests the applicant is supposed to send to the owners of nearby existing towers, along with the responses and rejection letters explaining why shared use couldn't work? Those documents aren't there either. What the application contains on the alternatives question is a slide deck. That is not the detailed review the rules ask for.

There is also a path the application ignores entirely: small cells — antennas mounted on existing utility poles, building facades, and other structures already standing in the area. The County's rules ask for an inventory of existing towers and other suitable structures within four miles, with a real showing that none of them can serve the purpose. "Other suitable structures" plainly includes the kind of infrastructure small cells use. The application does not look at any of it. The carrier that delivers the best service in Placitas today does it through that approach, without a new tower. The application gives no reason why the same approach is not the answer here.

The application has not demonstrated that this site, in this location, chosen this way, meets the standards the County's rules require. I am asking the Commission to deny it.

Sincerely,

Carl Koop
171 Camino Barranca
Placitas, NM

From: David R
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Friday, May 15, 2026 2:34:11 PM

Re: Application CU-26-001

Dear Commissioners,

I have lived in Placitas for more than 20 years, and the dark sky here — genuinely dark, the way it used to be everywhere before the sprawl crept in — is one of the things that has kept me here. So I'm writing about CU-26-001 with some personal stake in what gets decided.

On a summer evening, Homestead Plaza is where Placitas happens. I've been there for outdoor concerts, grabbed groceries at the market, sat outside at the restaurant. The restaurant's patio would sit directly underneath where this tower is proposed to stand. That's not an abstraction — it's the specific spot where my neighbors and I spend time together, and a 75-foot industrial structure with a fenced equipment compound at its base changes the experience of being there. The County's own standards say a facility like this has to preserve the character of the area. What happens at Homestead Plaza on a summer evening is exactly the character being asked to survive this.

When I read through the application, several things give me pause. The RF compliance report appears to have been adapted from a different project — it references a California site, uses rooftop-analysis software, and describes square footage of "ROOF Area" that has nothing to do with a ground-mounted tower in Placitas. I'd want to see an analysis actually prepared for this location. The application also describes the zoning here as plain CD-WP without ever acknowledging the more specific set of rules the County adopted for this parcel when it was zoned for a shopping center. Those rules attach binding conditions to any development on these tracts — screening, landscaping, and others — and the application doesn't tie its proposed measures back to those conditions at all. An 8-foot coyote fence is fine for what it does to the ground equipment; it doesn't address what the 75-foot structure above it looks like from the highway and from homes on three sides. Finally, the application doesn't include the FAA evaluation that determines whether any lighting is required at this height at this location. I can't tell from what's been filed what would be on that tower at night.

The County's rules put the burden on the applicant to demonstrate compliance. For the reasons above — and for the sake of the sky and the gathering place that make this community what it is — please deny this application.

Sincerely,

David T Rockafellar
32B Rainbow Valley Rd, Winnebago RV
Placitas, NM

From: Dr. Debbra Sirmans
To: Planning and Zoning Main
Subject: Fwd: Opposition to CU-26-001
Date: Monday, May 18, 2026 11:51:26 AM

---------- Forwarded message ---------
From: **Dr. Debbra Sirmans** <debsirmans@gmail.com>
Date: Mon, May 18, 2026 at 11:45 AM
Subject: Opposition to CU-26-001
To: <P&ZMain@sandovalcountynm.gov>

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

Three years ago my husband and I built our home on Tierra Madre to be close to the quiet and the open desert sky. That choice was deliberate. A 75-foot industrial monopole at the corner of Tierra Madre and NM-165 undoes what we came here for.

The County adopted a more specific set of rules for this parcel when it zoned it for a shopping center. The application doesn't acknowledge that. It treats the lot as plain CD-WP and never explains how a 75-foot tower fits the stated purpose of the zoning the County actually created for this site. Separately, the applicant tried the Fire Station first — County-owned property, near the top of the County's preferred siting order. When that deal didn't come together, they ended up at a vacant lot in a residential area, the last category on the County's list, without showing what was looked at in between. The County's rules say explicitly that a failed lease negotiation is not a valid reason to skip the rest of the priorities. The application also makes no mention of small cells — the low-profile antennas already mounted on existing poles and building facades that deliver better service across Placitas without any new tower. The County's inventory rule reaches exactly that kind of infrastructure. The application doesn't address it.

The proposed location compounds the problem. Homestead Plaza — directly next to this site — is where people in Placitas actually spend time together: a market, an art gallery, a restaurant with outdoor seating, outdoor concerts on warm evenings. The restaurant patio would sit directly under this tower. I don't think a painted brown canister changes what it feels like to be there.

There are also specific gaps in what was filed. The application doesn't include a setback diagram showing the tower meets the height-plus-ten-percent standard the rules require from every property line and right-of-way. It doesn't include the FAA evaluation that would establish whether any lighting is required at this height. These are things the applicant has the burden to show, and they aren't in the materials.

When we sell our home, a visible 75-foot tower nearby will matter to a buyer. And once a tower is approved, federal rules commit the County to approving certain future modifications without public process — making the conditions written at this hearing the ones our community lives with permanently. That alone is reason to hold this application to the full

standard the rules set.

Please deny this application.

Sincerely,

Debbra Sirmans MD
15 Tierra Madre CT
Placitas, NM

From: Devin Duszynski
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 8:54:49 AM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

I grew up in Placitas Homesteads since I was 4 years old, now 41 years old. My father's house is where I return every month from Colorado — to slow down, to remember what quiet sounds like. We own a parcel of land next to his property and I'm planning to build there. Placitas is not a place I'm passing through; it's the place I'm building toward.

When I think about what a 75-foot tower would do to the corner of Tierra Madre and NM-165, the first thing I land on is Homestead Plaza. I've eaten on that patio. I've run into neighbors and friends at outdoor concerts on summer evenings. My friends from Albuquerque often come up for these events as well to escape Albuquerque. The proposed tower would stand directly above those outdoor tables — and whatever the applicant calls the design, at 75 feet it becomes the tallest structure for miles. That's what people look up at over dinner. That character is exactly what the County's plan for this area was written to protect, and this application doesn't engage with it.

The site-selection record is where I keep getting stuck. The County's rules set a priority order for tower siting, with County-owned land near the top and residential-zoned areas at the very bottom. The applicant tried the Fire Station — second on that list — and when the lease talks broke down, ended up at a lot in a residential area without any apparent review of the middle priorities. The rules also require the applicant to provide actual written correspondence with the owners of nearby existing towers, showing what was asked and why shared use wasn't possible. I don't see those documents in the application. And small cells — antennas mounted on existing poles and building facades — go unaddressed entirely, even though the County's rules explicitly cover "other suitable structures," not just other carriers' towers. The carrier with the best service in Placitas delivers it through exactly that infrastructure. Verizon's application doesn't explain why the answer here has to be different.

There are also things the application simply doesn't include. The parcel has a specific set of binding development conditions the County adopted when it zoned this lot for a shopping center. The application treats the zoning as plain CD-WP throughout, without ever engaging with those conditions. I also haven't found the FAA evaluation that would establish whether any lighting is required at this height — so what gets installed on the tower after dark is unresolved.

My father moved our family to Placitas in 1990 for its quiet and its landscape. I plan on building a home there and moving my family there for the same reasons. I am asking the Commission to deny this application.

Sincerely,

Devin Duszynski
1709 Springmeadows Ct, Unit A, Fort Collins, CO 80525

Future resident of Placitas, NM

From: Diane Shepard
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 10:07:01 AM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

I have lived in Placitas for over 30 years, and the character of this place — the quiet, the dark nights, the open desert at the edge of town — is why I'm still here. That character is especially fragile at the entrance to Placitas, where Homestead Plaza has become a real gathering spot: the restaurant with its outdoor patio, the market, the concerts on summer evenings. My neighbors and I go there to eat dinner outside and run into each other. The restaurant's patio would sit directly underneath a 75-foot tower if this application is approved, and I cannot square that with the community the County committed to protecting when it adopted the plan we spent years writing together.

The site-selection record in this application is one of the things that bothers me most. The County's rules lay out a clear priority order for where towers should go, with residential areas listed last — the least preferred. The applicant tried the County Fire Station, which sits near the top of that list, and when the lease talks broke down, they ended up at a vacant lot in a residential-zoned area, the County's last choice, without any documented look at what came in between. The rules are clear that "we couldn't get a lease at the preferred site" is not a sufficient reason to skip the rest of the list. The application offers one sentence about alternatives and no written correspondence with the owners of nearby existing towers — correspondence the rules specifically require. More to the point, the application doesn't look at small cells at all. Small antennas mounted on existing utility poles, building facades, and rooftops are exactly what the County's inventory rule calls "other suitable structures" — and they are how the carrier with the best coverage in Placitas already delivers that service, without building anything new. Verizon has access to the same technology. The application doesn't say why it isn't the answer here.

There are also several things missing from the materials that I would expect to see before the County acts on this. The application treats the zoning on this parcel as plain CD-WP and never addresses the more specific rules the County adopted for this lot when it zoned it for a shopping center — rules with binding conditions about screening, landscaping, and lighting. The application does include an eight-foot coyote fence around the ground equipment, which is something, but an eight-foot fence doesn't screen a 75-foot tower. Neighbors on three sides and drivers on NM-165 will see the tower above it every day. The application also does not include an FAA evaluation showing whether any lighting would be required at this height, so there is no way to know what this looks like at night. And I have not found a setback diagram demonstrating that the proposed placement meets the County's height-plus-ten-percent standard from each abutting property line and road right-of-way. The burden of proving compliance is on the applicant, and that proof is not in what was filed.

Whatever conditions the County attaches now are the conditions that travel with this tower. Federal rules mean that some future modifications — adding carriers, swapping equipment — would not require the full public process we're going through today. That makes this hearing the moment that matters. A tower approved with gaps in the record is a tower the community

lives with for a very long time. This application has too many of those gaps. I am asking the Commission to deny it.

Sincerely,

Diane Herrera Shepard
98 Camino Barranca
Placitas, NM

From: Don Natvig
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Friday, May 15, 2026 9:01:12 PM

Re: Application CU-26-001

Dear Commissioners,

I have lived in Placitas for more than 38 years. We moved here for the quiet, the landscape, and the natural beauty. As a bonus, we have had great neighbors and we have been good neighbors. The people who want this tower to be built are not interested in our neighborhoods. Rather, they are happy to sacrifice the views and property values of Placitas residents for their own financial gain.

The terrain on three sides of this site — north, west, and east — is hilly enough that this tower will deliver meaningful signal benefits to very few of the households whose views and property values it will affect.

The tower is unnecessary, and it should be rejected.

Sincerely,
Don Natvig
9 Calle La Paz
Placitas, NM

From:	C. Edwin Garner
To:	Planning and Zoning Main
Cc:	Katherine Bruch
Subject:	RE: CU-26-001 — Wildfire and Hazardous-Materials Risk Assessment Deficiencies; Proposed 75-ft Verizon Wireless Monopole, 221 NM-165, Placitas, NM 87043 (APN 102-307-302-8180)
Date:	Sunday, May 17, 2026 4:54:39 AM

May 15, 2026

Doraida Arias, Interim Director
Sandoval County Planning & Zoning Division
1500 Idalia Road, Building D
Bernalillo, NM 87004

RE: CU-26-001 — Wildfire and Hazardous-Materials Risk Assessment Deficiencies; Proposed 75-ft Verizon Wireless Monopole, 221 NM-165, Placitas, NM 87043 (APN 102-307-302-8180)

Dear Director Arias:

I am writing to enter into the public record substantive evidence concerning a category of land-use risk that the application for CU-26-001 does not address: the credible, documented, and adjudicated fire-ignition and hazardous-materials risks associated with the equipment and storage profile of a standalone macro wireless tower of the type proposed at 221 NM-165. This letter is submitted within the May 16, 2026 written-comment deadline for the May 19, 2026 public hearing.

I write as a Ph.D. scientist whose professional practice is the construction and review of ODE-based systems models for federal and pharmaceutical clients. I am also a resident of the directly affected community. The matter I raise here is not speculative. It is grounded in CAL FIRE investigations, California Public Utilities Commission (CPUC) enforcement reports, California Department of Forestry and Fire Protection litigation, a multi-county district attorney prosecution settled in January 2026 against the applicant Verizon Wireless specifically, peer-reviewed academic research, and published National Renewable Energy Laboratory (NREL) analyses.

I want to be clear at the outset that I recognize Sandoval County's legitimate interest in modern wireless coverage. Nothing in this letter contests that interest. What I am asking is that the County not approve a Conditional Use Permit that places known industrial fire and hazardous-materials infrastructure in a Wildland-Urban Interface (WUI), inside a CD-WP Water Protection overlay over a fractured-rock aquifer, without a single fire-suppression plan, hazardous-materials business plan, or first-responder access protocol on the record. The application as submitted contains none of these documents. That omission is the principal subject of this letter.

Nothing in this letter relies on radiofrequency emissions, electromagnetic-field health effects, or any other claim preempted by Section 704 of the Telecommunications Act. Every concern raised below is a land-use, fire-safety, hazardous-materials, or planning-process concern within Sandoval County's clear and undisputed jurisdiction.

1. Fire-Ignition Mechanisms Documented at Macro Cell Tower Sites

The proposed installation at 221 NM-165 is a Verizon Wireless macro monopole with ground-based equipment cabinets, backup batteries, an emergency generator with associated petroleum storage, and a 200-amp electrical service. This is not a passive structure. It is an industrial electrical facility with five separately documented ignition pathways:

- **Equipment-cabinet electrical fires.** Arcing, overheating, insulation failure, and wiring defects within powered equipment cabinets are the single most frequently documented cause of cell-site fires in North America. Critically, energized-equipment fires cannot be water-suppressed until the electrical grid to the site is cut, a coordination process that field reports document as taking up to one hour. During that interval, fire grows unchecked.
- **Battery thermal runaway.** Both lead-acid backup banks (hydrogen venting and acid release) and lithium-ion backup banks (exothermic self-heating at rates exceeding 20 °C per minute, peak temperatures above 300 °C, with electrolyte venting and toxic gas release) are recognized failure modes documented by Underwriters Laboratories Research Institutes and the peer-reviewed battery-safety literature. Once initiated, thermal runaway propagates cell-to-cell and is extremely difficult to extinguish; standard water suppression is contraindicated and can accelerate the reaction.
- **Backup generator and petroleum storage.** Macro-site emergency generators are routinely paired with aboveground petroleum storage tanks of significant capacity. These constitute a HAZMAT inventory that California county fire departments now formally register as such, because first responders must be prepared for fuel ignition, battery acid exposure, groundwater contamination, and toxic combustion products.
- **Lightning strikes.** Lightning is a well-known ignition pathway. A February 11, 2026 incident in Lake County, Florida produced simultaneous substation and cell tower fires from a single lightning event. Placitas sits in an active New Mexico monsoon-lightning corridor on the east flank of the Sandia Mountains where dry-storm lightning is routine during the May–September fire season.
- **Maintenance and welding ignitions.** Multiple documented cases on record, including a 2016 monopole loss in West Valley City, Utah caused by tower-crew welding, and a 2013 Weiser, Idaho incident in which cell tower workers accidentally started a wildfire that burned approximately 1,100 acres. These ignitions occur during the routine maintenance lifecycle of every active macro tower.

2. Adjudicated Wildfire-Ignition Cases Involving Telecommunications Equipment

Two adjudicated cases are of particular evidentiary weight because the cause of ignition, the involvement of telecommunications equipment, and the financial responsibility of the telecom carriers were established through state regulatory investigation, civil litigation, and approved settlement orders. These are not advocacy claims; they are matters of regulatory record.

2007 Malibu Canyon Fire (California). On October 21, 2007, three utility poles along Malibu Canyon Road in Los Angeles County failed during Santa Ana winds and ignited a wildfire that burned 3,836 acres, destroyed 14 structures and 36 vehicles, damaged 19 additional structures, and produced documented losses of $14,528,300. The California Public Utilities Commission Order Instituting Investigation determined that the poles had been overloaded by attached telecommunications fiber and antenna equipment beyond General Order 95 safety-factor limits. Approved CPUC settlements totaled approximately $63.5 million: $37 million from Southern California Edison, $12 million collectively from AT&T, Verizon, and Sprint, and $14.5 million from NextG Networks (now Crown Castle). Southern California Edison admitted, in writing to the CPUC, that pole 252 did not comply

with GO 95's safety factor 'as a result of the NextG attachment to the pole at the time of the Malibu Canyon Fire.'

2020 Silverado Fire (California). On October 26, 2020, the Silverado Fire burned 12,466 acres in Orange County, damaged 16 structures, threatened 1,314 more, and critically injured two Orange County Fire Authority firefighters. The California Department of Forestry and Fire Protection (CAL FIRE) filed suit on October 20, 2022 alleging that arcing between a 12,000-volt Edison conductor and a T-Mobile communications-line lashing wire ignited the wildfire during 80-mph wind gusts. Orange County filed a separate suit in October 2023 naming T-Mobile as a defendant. T-Mobile reached a settlement with Orange County in April 2025.

I note for the record what the historical pattern is and what it is not. Utility infrastructure as a whole accounts for less than 10% of reported wildfires in California, but it accounts for roughly half of the most destructive wildfires in California history. This is the low-frequency, high-consequence pattern that defines catastrophic risk. Telecommunications equipment is a documented contributor within this pattern, particularly where it shares structural attachment with electric infrastructure, and where its hazardous-materials inventories sit unmanaged in WUI terrain.

3. Verizon Wireless Hazardous-Materials Compliance Failures: The January 2026 Multi-County Settlement

The most directly applicable item in the current record is a civil enforcement action concluded against Verizon Wireless — the applicant carrier in CU-26-001 — five months ago. I draw the County's attention to the substantive findings of that case because they bear directly on whether Verizon's hazmat compliance at a Placitas site can be assumed without independent verification.

On January 2, 2026, the Superior Court of California, County of Orange (Judge Richard Y. Lee) entered judgment requiring Cellco Partnership doing business as Verizon Wireless to pay $7,700,000 to settle a civil enforcement action brought jointly by the District Attorneys of Orange, San Bernardino, Los Angeles, Imperial, Riverside, San Diego, and Ventura counties, together with the Los Angeles City Attorney's Office. The action concerned environmental violations at hundreds of Verizon cell tower sites across Southern California. The complaint, as documented in the press releases of the prosecuting offices, alleged that, beginning in January 2019, Verizon:

- Repeatedly failed to submit complete and accurate Hazardous Materials Business Plans to the California Environmental Reporting System;
- Failed to maintain copies of those plans on site at tower locations as required;
- Failed to provide adequate employee training for response to hazardous-material releases;
- Denied regulatory inspectors access at multiple sites;
- Failed to pay required hazardous-materials permit fees that fund local first-responder oversight; and
- Violated the California Aboveground Petroleum Storage Act with respect to aboveground petroleum storage tanks used to power emergency generators and backup systems.

The prosecuting agencies stated in the public record that the hazardous materials at issue at these sites — lead-acid batteries and petroleum products — 'if improperly managed, can pose serious risks including fires, explosions, and the release of toxic chemical air contaminants.' Verizon paid $7,125,000 in civil penalties, $375,000 in Supplemental Environmental Projects, and $200,000 in investigative costs. San Bernardino County allocated a portion of its share specifically to its County Fire Protection District's Hazardous

Materials Division, underscoring that the substantive concern of the prosecution was first-responder safety at cell tower sites.

The relevance to CU-26-001 is direct. Sandoval County is being asked to issue a Conditional Use Permit to a national carrier whose recent regulatory record establishes that, across hundreds of its sites, it failed for six consecutive years to file accurate hazmat plans, train its personnel, allow inspections, or pay the permit fees that fund the County's own first-responder hazmat oversight. The County cannot, on the present record, assume Verizon's hazmat compliance at the Placitas site. The application contains no Hazardous Materials Business Plan, no fuel-inventory disclosure, no battery-chemistry specification, no fire suppression plan, no first-responder access plan, and no commitment to county hazmat permitting and inspection.

4. Application Deficiencies Specific to Fire and Hazardous-Materials Risk

The application file for CU-26-001 is silent on every element that a competent fire-and-hazmat review would require. I list the specific omissions for the record:

- No fire suppression or fire-detection plan for the equipment compound.
- No Hazardous Materials Business Plan or equivalent disclosure of stored battery chemistry, battery capacity, fuel type, fuel volume, or aboveground storage tank specifications.
- No specified ignition-source mitigation for the equipment cabinets (arc-fault detection, thermal monitoring, gas-detection).
- No first-responder access plan or coordination memorandum with Placitas Volunteer Fire & Rescue or Sandoval County Fire & Rescue.
- No vegetation-management or defensible-space plan for the 0.5-acre lease parcel within the surrounding WUI fuel load.
- No power-shutoff coordination protocol for emergency response (the well-documented one-hour de-energization interval before water suppression becomes feasible).
- No hydrological assessment for the CD-WP Water Protection overlay, despite the storage of petroleum products and lead-acid electrolyte directly over a fractured-rock aquifer.
- The acoustic study submitted by AGI models only one of the three planned carrier installations. There is no corresponding hazmat or fire analysis at all — not even for one carrier.

I also note that the applicant's alternatives analysis references 'Madera County Code,' which is a California jurisdiction. This is not a clerical curiosity; it is evidence that the alternatives analysis was not prepared for this site, this carrier configuration, this county, or this fire environment. A boilerplate alternatives analysis is not a substitute for a fire and hazmat assessment that does not exist.

I further note for the record that the first-considered candidate location was the Placitas Volunteer Fire & Rescue station at 463 NM-165. That candidate location would have co-located the hazmat inventory and ignition-source equipment with the trained first responders who would handle any incident. The applicant has stated that the fire-station candidate was not infeasible on technical grounds; it was passed over on lease-economic grounds. The County is entitled to weigh that choice against the public-safety profile of the alternative now in front of it.

5. The Placitas Wildland-Urban Interface Context

The siting environment at 221 NM-165 is unambiguously a Wildland-Urban Interface. The parcel sits on the east flank of the Sandia Mountains within pinyon-juniper, chamisa, and short-grass fuel types, with prevailing spring and pre-monsoon winds routinely exceeding 40 mph and gusts measured above 60 mph during red-flag events. The 2022 Calf Canyon-Hermits Peak Fire — the largest wildfire in New Mexico history — burned approximately 341,000 acres approximately 130 miles to the north of this site. New Mexico has, as of this writing, multiple active fires in the Magdalena Mountains, Capitan Mountains, and Gila Wilderness, and multiple grass fires in the Texas and Oklahoma panhandles within the past 72 hours during a Red Flag warning event.

The University of Wisconsin–Madison research group, in work presented at the ACM Internet Measurement Conference and supported by the National Science Foundation and the U.S. Department of Homeland Security, found that more than 430,000 cell-network transceivers covering approximately 85 million Americans sit in areas the U.S. Forest Service classifies as moderate or high wildfire risk. Their recommendation, on the record, is that 'in high-fire-risk areas, priority should be given to more open, accessible property when choosing tower sites, and more care taken to maintain a physical buffer around sites by regularly removing vegetation that could draw a fire right up to delicate equipment.' That recommendation, applied to CU-26-001, points away from a private parcel within the Placitas viewshed corridor and toward the open fire-station alternative the applicant declined.

6. Section 6409(a): The Permanent Loss of Discretionary Hazmat Review

I must also raise, as a fire-and-hazmat matter rather than a general planning matter, the Section 6409(a) federal ratchet. Once CU-26-001 is approved, Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012 obligates Sandoval County to approve, by right and without public hearing, modifications that do not 'substantially change' the structure. In practice, the carriers' three-carrier build-out plan disclosed in the application — three carrier installations at 50, 60, and 75 feet AGL with pre-designed shrouds — will multiply the cabinet, battery, generator, and fuel inventories on the site without the County having a future opportunity for hazmat review. Whatever fire and hazmat conditions the County imposes today will be the only such conditions it ever imposes on this site. There is no second opportunity at the build-out stage.

This is not a hypothetical concern. The same Section 6409(a) framework that converts a 75-ft tower into a by-right 82.5-ft tower (+10%) also converts a one-carrier hazmat footprint into a three-carrier hazmat footprint. The federal pending rulemakings — FCC NPRM WT Docket No. 25-276 and H.R. 2289 — would further constrain the County's discretion. Once the CUP is issued, the County cannot revisit the fire and hazmat conditions of approval.

7. Findings and Conditions Requested

On the present record, the application for CU-26-001 does not contain the documentation that any competent fire-and-hazmat review of an industrial electrical facility within a WUI would require, and the applicant carrier's most recent multi-state regulatory record establishes that compliance cannot be assumed in the absence of such documentation. I respectfully request that the Planning and Zoning Commission make the following findings and impose the following conditions in any action it takes on May 19, 2026:

- **Finding 1.** The application as submitted does not address fire-ignition risks or hazardous-materials risks associated with the proposed installation, and the absence of such analysis is a material deficiency under the County's obligation to consider public health and safety in CUP review.
- **Finding 2.** The siting environment at 221 NM-165 is a Wildland-Urban Interface and is within the CD-WP Water Protection overlay, both of which independently elevate the County's interest in fire and hazmat conditions of approval.

- **Finding 3.** The applicant carrier's recent regulatory record (Cellco Partnership dba Verizon Wireless, multi-county California settlement entered January 2, 2026, $7.7 million) establishes that compliance with hazmat reporting, inspection, training, and permitting requirements cannot be presumed in the absence of site-specific documentation and binding conditions.
- **Condition 1.** Any CUP approval must be conditioned on submission, and County review, of a complete Fire Suppression and Fire Detection Plan for the equipment compound, including arc-fault detection, smoke and gas detection, and battery thermal monitoring.
- **Condition 2.** Any CUP approval must be conditioned on submission of a Hazardous Materials Business Plan disclosing battery chemistry, battery capacity, fuel type, fuel volume, aboveground storage tank specifications, and spill containment design. The Plan must be filed with Sandoval County Fire & Rescue and maintained on site as a condition of continuing operation.
- **Condition 3.** Any CUP approval must be conditioned on a written coordination memorandum between the applicant and Placitas Volunteer Fire & Rescue establishing first-responder access, electrical-shutoff coordination, hazmat-incident response protocols, and annual familiarization training.
- **Condition 4.** Any CUP approval must be conditioned on a vegetation-management and defensible-space plan covering not less than the 0.5-acre lease parcel and an additional 30-ft perimeter buffer, with annual recertification.
- **Condition 5.** Any CUP approval must be conditioned on a hydrological assessment of the parcel's contribution to the CD-WP Water Protection overlay aquifer, performed by a qualified hydrogeologist and reviewed by the County, prior to any installation of petroleum storage.
- **Condition 6.** Any CUP approval must include an express written stipulation, binding on the applicant and its successors and assigns, that all conditions of approval apply equally to any Section 6409(a) modification, to the maximum extent permitted by federal law. Future co-location modifications must trigger renewed fire and hazmat review by the County.

8. Recommendation

On the record before the Commission, the responsible course is denial of CU-26-001 as submitted, without prejudice to a future application that includes the fire and hazardous-materials documentation that the present application lacks. The applicant has not been asked to do anything unreasonable; it has been asked to do what every industrial electrical facility in a WUI is properly asked to do. The applicant has had the opportunity to provide this material and has not. The most recent multi-county prosecution of this carrier establishes that the County's diligence here is not theoretical.

I appreciate the time and care your staff have devoted to this application during a transitional period in the Planning & Zoning Division. I am available to answer any technical questions about the materials cited in this letter, to provide source documents on request, or to appear at the May 19, 2026 hearing in support of these findings.

Respectfully submitted,

C. Edwin Garner, Ph.D.
Resident, 46 Camino Barranca, Placitas, NM 87043

cc: Commissioner Katherine Bruch, District 1 (kbruch@sandovalcountynm.gov)
Senator Cindy Nava, NM Senate District 9
Placitas Volunteer Fire & Rescue
Public Record, CU-26-001

Sources Cited

California Public Utilities Commission, Safety and Enforcement Division, Investigation Reports and Settlement Agreements regarding the 2007 Malibu Canyon Fire (SCE, AT&T, Verizon, Sprint, NextG/Crown Castle); CPUC press releases of September 19, 2013, September 13, 2012, May 20, 2013.

California Department of Forestry and Fire Protection (CAL FIRE) v. Southern California Edison and T-Mobile USA, complaint filed October 20, 2022 (2020 Silverado Fire). Orange County v. Southern California Edison and T-Mobile, filed October 2, 2023; T-Mobile settlement reported April 2025.

California Superior Court, County of Orange, Stipulated Final Judgment in People v. Cellco Partnership dba Verizon Wireless, entered January 2, 2026 ($7.7 million); press releases of the District Attorneys of Orange, San Bernardino, Los Angeles, Imperial, Riverside, San Diego, and Ventura counties, and of the Los Angeles City Attorney's Office, January 2-3, 2026.

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Underwriters Laboratories Research Institutes, Thermal Runaway in Lithium-Ion Cells: technical findings on heat generation rates and ignition thresholds; peer-reviewed lithium-ion thermal runaway literature including Mao et al., on cell-eruption-gas fire boundaries.

National Renewable Energy Laboratory (2023), 'Power System Wildfire Risks and Potential Solutions,' Technical Report; National Interagency Fire Center, National Fire News (2026); New Mexico Fire Information service (nmfireinfo.com), May 2026 incident reports.

Placitas Area Plan (papfinal.pdf), Sandoval County Wireless Telecommunications Ordinance #03-10-16.11A, Federal Telecommunications Act §704, Middle Class Tax Relief and Job Creation Act of 2012 §6409(a).

EXECUTIVE SUMMARY

Why the Coverage-Need Claim in CU-26-001 Fails

Integrated Technical Brief, Parts I, II, and III

Conditional Use Permit Application CU-26-001

75-foot Wireless Monopole, 221 NM-165, Placitas, New Mexico

Applicant: Pinnacle Consulting / Verizon Wireless / Sun State Towers IV, LLC

Prepared by C. Edwin Garner, Ph.D. | 46 Camino Barranca, Placitas, NM 87043

Submitted to Doraida Arias, Interim Director, Sandoval County Planning & Zoning | 13 May 2026 — V1

The Bottom Line

The proposed 75-foot tower cannot deliver new service to the homes the application says it will serve. The coverage maps in the application disguise this by combining the new tower with every Verizon tower already operating in the area, and presenting their combined signal as if it came from the proposal alone. The applicant's own slides identify the principal purpose of the project as offload of existing Verizon traffic — an infrastructure goal for the carrier, not a service benefit for Placitas residents.

Where the proposed tower can reach, no residents need it. Where residents need it, the tower cannot reach.

1. The Maps in the Application Are Misleading

Slides 11 and 12 of the applicant's RF Design Analysis are labeled "Current" and "Proposed" coverage. Both maps display every Verizon tower in the area combined — the existing corridor towers plus, in slide 12, the proposed new tower. The green "improvement" a viewer sees between the two maps comes overwhelmingly from the existing infrastructure, not from the proposal.

The map that would actually answer the zoning question — what the proposed tower contributes by itself — is absent from the submission. When the proposed tower is rendered alone (Part III, Figure 6), its actual reach falls on Bernalillo, the I-25 corridor, Santa Ana Pueblo, the gravel mine, and federal land. The back canyons of residential Placitas appear as dark gaps within the green. This is the visual evidence the Commission needs, and the applicant did not provide it.

2. The Terrain Blocks the Signal From Reaching the Homes

Of approximately 2,688 acres inside the applicant's alleged "coverage gap" ellipse, 40 to 60 percent is non-residential land: an active gravel mining operation, federal land in the Las Huertas drainage and the Sandia foothills, and slopes too steep for residential development.

Of approximately 460 to 680 homes inside the ellipse, roughly 180 to 320 sit in the geometric shadow of intervening ridges — the signal physically cannot reach them. An additional approximately 100 homes sit at elevations above the antenna's main beam and would receive only weak side-lobe radiation. Sundance Mesa, Ranchos des Placitas, Vista de Oro, the upper Las Huertas drainage, and the historical Village of Placitas all lie in this shadow. The same ridges that make these neighborhoods

quiet and rural also block the radio signal. This is geometry, not engineering choice, and no height adjustment permitted under federal law (capped by the 10 percent modification ratchet at roughly 82.5 ft) corrects it.

3. The Applicant's Own Slides Say the Project Is About Offload

Slide 2 of the applicant's RF Design Analysis distinguishes "Capacity" (additional bandwidth for customers who already have service) from "Coverage" (service where none exists). These are different objectives in cellular engineering.

Slide 3, captioned "Objective of New Site," lists three Capacity bullets — additional bandwidth, better throughput for indoor users, and "Offload surrounding sites in area" — and only two narrowly qualified Coverage bullets (in-vehicle service along Hwy 165 and indoor service in homes "surrounding" the tower base). The applicant's own document identifies the principal driver as offload of existing congested Verizon sites onto the new facility. That is Verizon's network-economics decision, not a service extension to Placitas residents in need.

4. A 75-Foot Tower Is the Wrong Tool for a Capacity Problem

The published industry-standard architectural answer to a capacity-and-offload problem (3GPP TR 36.932) is small-cell densification — lower, smaller, more numerous facilities placed close to demand — not a single tall macrocell.

Independent measurement in the same Placitas service area shows the architecture matters. T-Mobile operates approximately 30 small cells in the Placitas area and achieves 94.06 percent home coverage with measured downlink throughput of 109.6 Mbps. Verizon operates approximately 10 small cells and achieves 87.11 percent home coverage with measured throughput of 44.5 Mbps. Aspen, Colorado (2019) and East Hampton, New York (2025) have written distributed small-cell frameworks into ordinance. The 75-foot single macrocell proposed at 221 NM-165 is not the engineered answer to Verizon's own stated problem.

What the Commission Is Being Asked to Approve

An industrial-scale wireless facility, sited in residential Placitas, presented as a coverage solution for back-canyon neighborhoods it cannot geometrically reach, justified by aggregate-network maps that conceal the proposed tower's actual reach behind the existing network, advanced by an applicant whose own slides identify offload of existing traffic as the principal objective, and built in the wrong architectural form (a 75-foot macrocell) for the problem the applicant says it is solving.

The submitted record does not contain the analytical artifact that would substantiate a coverage-need finding. The conventional remedy is to require the applicant to produce that artifact — an isolated map showing what the proposed tower alone would deliver — before any substantive determination is made.

Approval would deliver Verizon's infrastructure and logistics objective. It would not deliver the new community service the application advertises.

CU-26-001 Technical Brief

Part I — RF Propagation Foundations

Standards-grounded basis for evaluating the coverage-gap claim

C. Edwin Garner, Ph.D.

46 Camino Barranca, Placitas, New Mexico 87043

12 May 2026 — Version 2

Conditional Use Permit Application CU-26-001 (75-foot wireless monopole at 221 NM-165, Placitas, NM).

Submitted to: Doraida Arias, Interim Director, Sandoval County Planning & Zoning.

Part I of a multi-part integrated technical brief in opposition to CU-26-001.

1. Introduction and Scope

This document is the first chapter of an integrated technical brief evaluating the wireless-engineering basis for Conditional Use Permit application CU-26-001. CU-26-001 proposes a 75-foot wireless monopole at 221 NM-165, Placitas, New Mexico, with Verizon Wireless as initial tenant and Sun State Towers IV, LLC as facility owner. The application's need-justification rests on a Reference Signal Received Power (RSRP) coverage-gap claim drawn as a red ellipse on four slides of the applicant's RF Design Analysis (Pinnacle Consulting / Biwabkos Consultants, 2024).

Part I lays the propagation-physics foundation required to evaluate that claim on engineering terms. It addresses four questions:

- How does signal strength fall with distance for the bands actually deployed by Verizon at the proposed site? (free-space path loss and link budget — §3)
- How is signal additionally attenuated when terrain or buildings obstruct the direct path? (knife-edge diffraction — §4)
- How is signal modeled in arid mountainous terrain of the kind found in Placitas? (ITU-R P.1812 and the Longley-Rice Irregular Terrain Model — §5)
- What does the RSRP value reported in the applicant's slides actually measure, and what does it not measure? (3GPP TS 36.214 definition and limitations — §6)

Each section establishes the standards-grounded basis without reference to opposition framing or non-technical considerations. The results developed here are inputs to Part II (Placitas terrain-specific analysis) and Part III (critique of the sponsor's RSRP submission). Conclusions about the application itself are reserved for Part V.

1.1 References used throughout this chapter

This document cites only ITU-R Recommendations, 3GPP Technical Specifications, IEEE-published proceedings and transactions, and peer-reviewed monographs and journal articles. Marketing material, advocacy publications, and trade-press reports are not cited. A full reference list appears in §7.

1.2 Abbreviations

Term	Definition
AGL	Above Ground Level (height measured from the base of the supporting structure to the antenna or shroud reference)
AMSL	Above Mean Sea Level (elevation referenced to the NAVD88 / WGS84 vertical datum)
ARFCN / EARFCN	(E)UTRA Absolute Radio Frequency Channel Number — integer index of the LTE carrier frequency per 3GPP TS 36.101
dB / dBi / dBm	Decibel (logarithmic ratio); dBi (gain relative to isotropic antenna); dBm (power referred to 1 milliwatt)

Term	Definition
EIRP	Equivalent Isotropically Radiated Power — transmitter output power referred to an ideal isotropic radiator (i.e., includes antenna gain)
FSPL	Free-Space Path Loss — power loss in transmission through vacuum, no obstructions or absorbers
LTE / 5G NR	Long-Term Evolution (4G mobile broadband, 3GPP Release 8 onward) / New Radio (5G, 3GPP Release 15 onward)
LOS	Line of Sight — direct unobstructed visual path between two points
MCC / MNC	Mobile Country Code / Mobile Network Code — pair of integers identifying the cellular operator (e.g., 311/480 = Verizon USA, 310/260 = T-Mobile USA)
PRB / RE	Physical Resource Block (12 subcarriers × 7 OFDM symbols) / Resource Element (single subcarrier × single OFDM symbol)
RAD center	Radiation center — the geometric center of the antenna aperture, the reference point from which propagation distances are measured
RSRP	Reference Signal Received Power — linear average power received over the resource elements carrying cell-specific reference signals (3GPP TS 36.214)
RSRQ	Reference Signal Received Quality — ratio of RSRP to total Received Signal Strength Indicator over the same bandwidth
RSSI	Received Signal Strength Indicator — total received wideband power including thermal noise and interference
SINR / SNR	Signal-to-Interference-plus-Noise Ratio / Signal-to-Noise Ratio
UE	User Equipment — the 3GPP term for the mobile handset

2. Verizon Spectrum Bands Deployed at the Proposed Site

Path-loss calculation requires the carrier frequency, antenna gain, transmit power, and receiver sensitivity for each band of interest. This section identifies the bands that the proposed facility will actually serve, sourced from three pieces of evidence: (a) Verizon's nationally-deployed band list per FCC license records and Verizon's published technical literature; (b) the proposed-site design plans Sheet Z-5 (Sun State Towers, Final for Zoning Rev. 1, dated 06/17/2025); and (c) direct measurement of the (E)UTRAN Absolute Radio Frequency Channel Number (EARFCN) at receivers driven through the proposed coverage area on 6 May 2026 (drive test data, this brief).

2.1 Verizon's nationally-deployed LTE and 5G NR bands

Verizon Wireless, the initial tenant in the design plans (Sheet Z-5), holds licenses for and has deployed the following frequency bands in its 4G LTE and 5G New Radio (NR) networks per FCC public license records and Verizon's published RF disclosures:

Band	Designation	Downlink (MHz)	Channel bandwidth	Typical role
B13	LTE 700 Upper C	746 – 756	10 MHz FDD	Primary national LTE; long-reach low-band
B5	LTE 850 CLR	869 – 894	5 – 10 MHz FDD	Refarmed cellular; supplemental low-band
B2	LTE 1900 PCS	1930 – 1990	5 – 20 MHz FDD	Mid-band capacity carrier
B4	LTE AWS-1	2110 – 2155	5 – 20 MHz FDD	Mid-band capacity carrier
B66	LTE AWS-3	2110 – 2200	5 – 20 MHz FDD	Mid-band capacity carrier; superset of B4
n5	5G NR 850 CLR	869 – 894	DSS or dedicated	Low-band 5G via Dynamic Spectrum Sharing
n77	5G NR C-Band	3700 – 3980	60 – 200 MHz TDD	Mid-band 5G Ultra Wideband

Source: 3GPP TS 36.101 Table 5.5-1 (LTE bands) and TS 38.101-1 Table 5.2-1 (NR FR1 bands); FCC ULS license records (geographic license areas covering Sandoval County, New Mexico); and Verizon's published 5G frequency-band disclosure (Verizon Wireless RF technical resources).

2.2 Bands actually observed at the proposed coverage area

On 6 May 2026, the authors recorded the serving cell's EARFCN at every drive-test sample inside and around the V2-fitted coverage-gap ellipse. The most-frequently-observed Verizon EARFCN values, and the corresponding LTE bands (per the EARFCN-to-band mapping in 3GPP TS 36.101 Table 5.7.3-1), are:

EARFCN	Mapped band	Downlink (MHz)	Samples observed	Fraction of drive
66611	B66 (AWS-3)	2127.5	2,061	66.1%
2600	B5 (850 CLR)	889.0	715	22.9%
5230	B13 (700 Upper C)	751.0	342	11.0%

The observed serving-cell mix during the 12:06–13:14 main Verizon drive places primary service on Band 66 at 2,127.5 MHz, with handovers to Band 5 (850 MHz CLR) and Band 13 (700 MHz Upper C) when the mid-band signal degraded. This is consistent with Verizon's published macrocell deployment strategy: the low-band (B13, B5) carriers provide the propagation reach and indoor penetration, while the mid-band carrier (B66) provides capacity at shorter range. No C-band (n77) samples were observed, consistent with C-band deployment being concentrated in higher-density markets through 2025–2026.

2.3 Radiation center elevation and geometry

Sun State Towers' Final for Zoning plan set, Sheet Z-5 (“New Southeast Elevation” and “New Northwest Elevation”), specifies the proposed antenna geometry. The Verizon antenna centerline is at elevation 70 ft AGL; the top of the proposed antennas is at 74 ft AGL; the top of the proposed monopole and the concealment shroud is at 75 ft AGL. Future carrier antenna centerlines are designated at 60 ft AGL and 50 ft AGL with their respective shroud bottoms at 55 ft and 45 ft AGL. The Verizon installation comprises three antennas per sector for three sectors (nine antennas total), each fed by a remote radio head (RRH); four RRHs per sector (twelve RRHs total). For propagation modeling purposes, the relevant reference point is the Verizon Radiation Center (“RAD center”) at 70 ft AGL — i.e., 21.34 m above the natural grade at the tower base.

The natural-grade elevation at the proposed site (221 NM-165) is approximately 5,548 ft AMSL (1,691 m), referenced to the USGS Placitas 7.5-minute quadrangle and corroborated by the Placitas Homesteads geographic centroid elevation of 5,548 ft AMSL listed in the USGS Geographic Names Information System (GNIS). The Verizon RAD center is therefore at approximately 5,618 ft AMSL (1,712 m).

3. Free-Space Path Loss and the LTE Downlink Link Budget

3.1 The Friis transmission equation

The foundational equation of radio propagation is the Friis transmission formula (Friis 1946), which gives the ratio of received to transmitted power for an isotropic radiator and receiver separated by distance d in free space (i.e., vacuum, no atmospheric absorption, no obstructions):

$$P_r / P_t = G_t G_r (\lambda / 4\pi d)^2$$

where P_r is the received signal power, P_t is the transmitted power, G_t and G_r are the transmit and receive antenna gains (linear), λ is the electromagnetic wavelength, and d is the path distance. The relation derives from spherical-wave expansion of energy radiating uniformly in all directions from a point source: at distance d, the total transmitted energy is spread over the surface area 4π d² of a sphere centered at the transmitter. The (λ / 4π)² factor enters because the effective aperture of an isotropic receiver is proportional to the wavelength squared.

Expressed in decibels (dB), with the antenna gains converted to dBi and a unit conversion absorbing 4π d / λ, the equivalent form is:

$$P_r (dBm) = P_t (dBm) + G_t (dBi) + G_r (dBi) − L_fs (dB)$$

where the term L_fs is the free-space path loss, given by:

$$L_fs (dB) = 20 \log_{10}(d) + 20 \log_{10}(f) + 32.45$$

with d in kilometers and f in MHz. This closed-form expression is the practical engineering identity used in essentially all link budget work in cellular system design (Rappaport 2002, eq. 4.6; ITU-R P.525). The 32.45 dB constant absorbs (4π / c)² with appropriate unit conversions. The same expression evaluates to 36.58 with d in statute miles.

3.2 FSPL for the bands deployed at the proposed site

Applying the formula at the three Verizon LTE bands observed in the drive test (Band 13 at 751 MHz, Band 66 at 2,127.5 MHz; and including Band 5 at 889 MHz and the 5G n77 C-band at 3,700 MHz for completeness):

Distance (mi)	B13 (751 MHz)	B5 (889 MHz)	B66 (2127.5 MHz)	n77 (3700 MHz)
0.25	82.05 dB	83.55 dB	91.10 dB	95.91 dB
0.50	88.07 dB	89.57 dB	97.12 dB	101.93 dB
1.00	94.09 dB	95.59 dB	103.14 dB	107.95 dB
2.00	100.11 dB	101.61 dB	109.16 dB	113.97 dB
3.00	103.63 dB	105.13 dB	112.68 dB	117.49 dB
4.00	106.13 dB	107.63 dB	115.18 dB	119.99 dB

Two observations from these numbers, both relevant to the analysis in Parts II and III:

- **Frequency dependence is logarithmic.** Doubling the frequency adds 6.02 dB of FSPL. Quadrupling adds 12.04 dB. The 2,127.5 MHz mid-band carrier suffers 9.05 dB more path loss than the 751 MHz low-band at the same distance — equivalent to a factor of 8× in transmitted power for the same coverage radius. The 3,700 MHz C-band carrier suffers 13.86 dB more than 751 MHz — a factor of 24×.
- **Distance dependence is also logarithmic.** Doubling the distance adds 6.02 dB of loss. The path loss to a receiver 4 mi from the tower is 12.04 dB greater than to a receiver 1 mi away — meaning the 4-mi receiver requires 16× the transmitted power for the same received signal level. The geometric implication is sharp: small differences in distance produce large differences in achievable signal level.

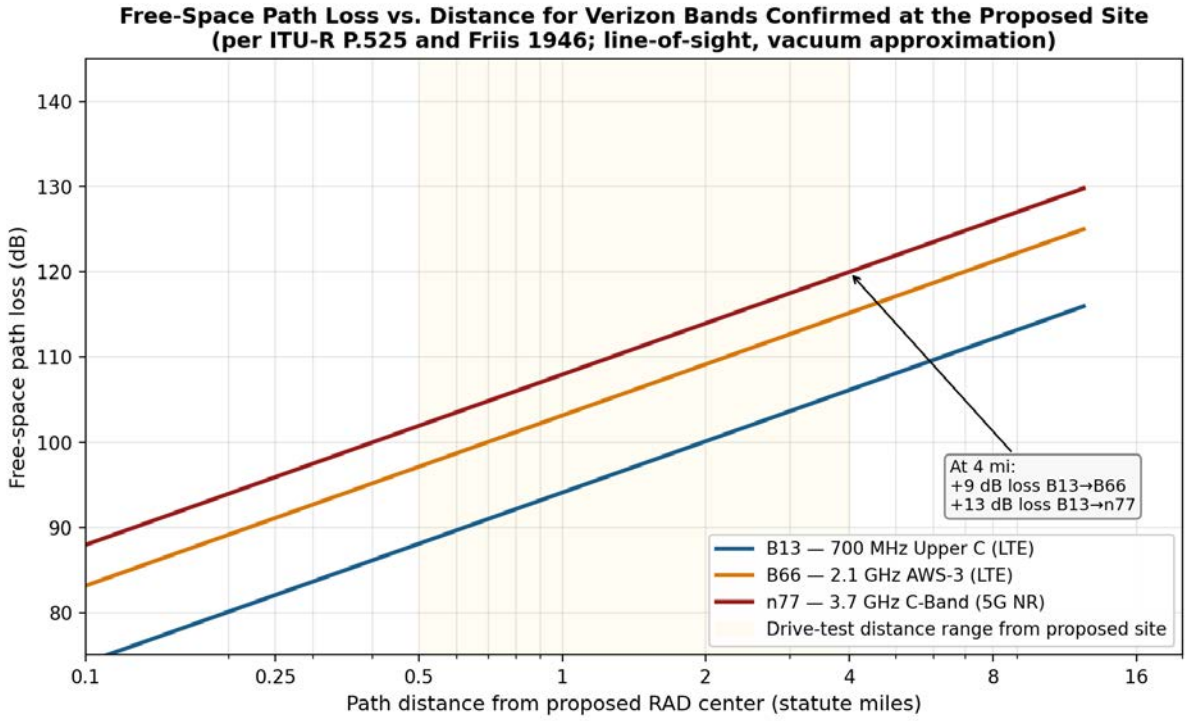

Figure 1. *Free-space path loss (FSPL) vs. path distance for the three Verizon LTE bands measured during the 6 May 2026 drive test (Band 13, Band 66) and the 5G C-band (n77). All curves follow the closed-form equation in §3.1. The shaded region marks the distance range covered by the drive test from the proposed tower site.*

3.3 The LTE downlink link budget

Free-space path loss is one term in a longer downlink budget. The full budget for an LTE cellular link, in the standard form used in 3GPP and industry practice (see for example Holma & Toskala 2011, Chapter 5; Mogensen et al. 2007), is:

$$P_{RSRP}\ (\text{dBm}) = P_{total} + G_{Tx} - L_c - 10\log_{10}(N_{SC}) - L_{fs} - L_{clutter} - L_{shadow} - L_{body} + G_{Rx}$$

Each term is defined as follows:

- **P_total:** transmitter conducted output power, summed across antenna ports of the sector, typically 46 dBm (40 W) for a standard macrocell sector — though sites may operate at higher power per band per FCC license terms.
- **G_Tx:** sector antenna gain in the boresight direction, typically 15 – 18 dBi for a panel antenna with 65° horizontal and 7° – 10° vertical 3 dB beamwidth (Andrew/CommScope, Kathrein-class antennas, per their published patterns).
- **L_c:** feeder and connector loss between the transmitter and the antenna, typically 1 – 3 dB in a Remote Radio Head (RRH) installation (as in the proposed Z-5 design).
- **N_SC:** number of OFDM subcarriers in the carrier bandwidth. P_total is spread across all subcarriers; per-resource-element (per-RE) power is therefore P_total minus $10 \cdot \log_{10}(N\_SC)$. For a 10 MHz LTE carrier, N_SC = 600 active subcarriers, so $-10 \cdot \log_{10}(600) = -27.78$ dB.
- **L_fs:** free-space path loss, evaluated at the relevant carrier frequency and distance per §3.1 above.
- **L_clutter:** loss due to vegetation, building scatter, and ground-reflection effects on the path — empirically determined from clutter-class deployment data (Hata 1980; ITU-R P.1812-7).
- **L_shadow:** shadow-fading margin, typically modeled as a log-normal random variable with standard deviation 6 – 10 dB in macrocell deployments (Sklar 2001, Ch. 14). Link budgets carry an explicit margin (often 8 – 10 dB at the 90th-percentile coverage requirement) to absorb this.
- **L_body:** loss due to the user's body absorbing energy from the handset's antenna, typically 3 – 5 dB at sub-3 GHz frequencies (Pedersen et al. 1995).
- **G_Rx:** receive antenna gain at the user equipment, typically 0 dBi for a handset (the handset antenna is approximately isotropic by design).

The output of the budget, P_RSRP, is the Reference Signal Received Power that the user equipment would report — i.e., the same quantity rendered as colored cells on the applicant's slides 11 and 12. §6 of this document treats the RSRP definition rigorously.

3.4 Worked example: Band 13 at a 2-mile path

For a concrete illustration, the budget is worked at Band 13 (751 MHz) over a 2.0-mile path, with assumptions that are typical of macrocell deployments and consistent with the design plans on Sheet Z-5:

Term	Value (dB or dBi)	Running total (dBm)
Sector transmit power P_total (40 W per port, 4 ports per sector — RRH integrated)	+46.0 dBm	+46.0
Cable + connector loss L_c (RRH at top of tower; mostly internal cable)	−2.0 dB	+44.0

Term	Value (dB or dBi)	Running total (dBm)
Sector antenna gain G_Tx (CommScope/Andrew-class panel, 65° azimuth, ~17 dBi)	+17.0 dBi	+61.0
EIRP per resource element: $-10 \cdot \log_{10}(600)$ for 10 MHz LTE	−27.78 dB	+33.22
Free-space path loss at 751 MHz over 2 mi (3.22 km)	−100.11 dB	−66.89
Shadow fading margin (90th-percentile, σ = 8 dB)	−8.0 dB	−74.89
Clutter / vegetation loss (light suburban / open chaparral)	−5.0 dB	−79.89
UE antenna gain G_Rx (handset isotropic)	+0.0 dBi	−79.89
Body loss L_body (handheld operation)	−3.0 dB	−82.89
Predicted P_RSRP at receiver (LOS, modest clutter)		**−82.9 dBm**

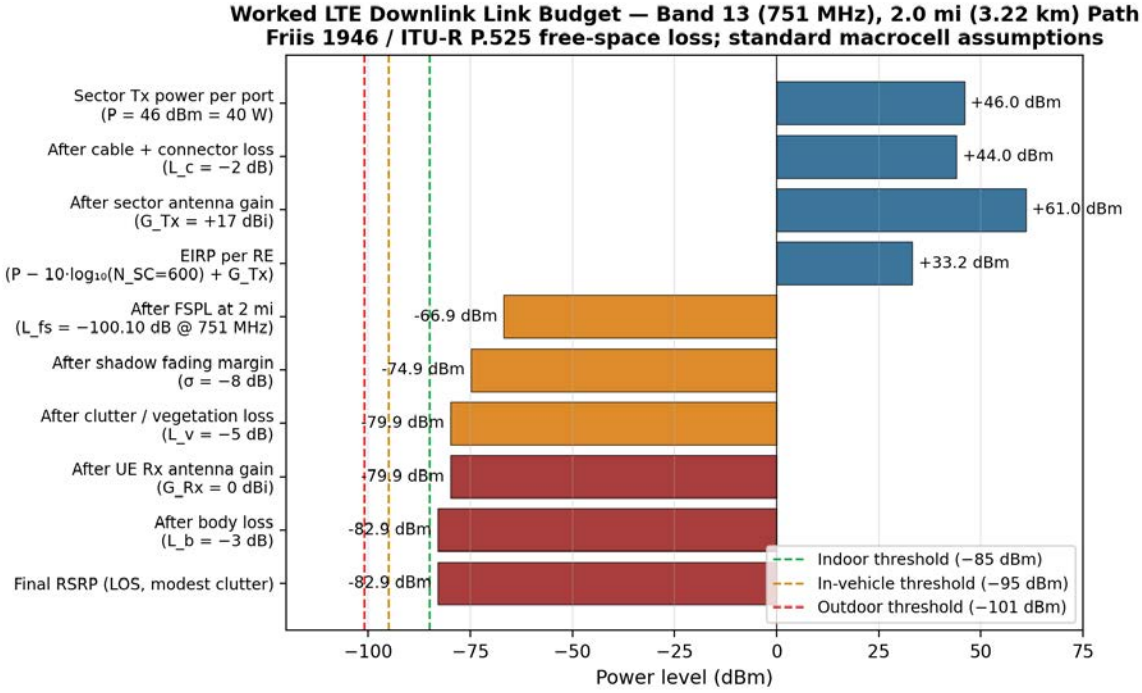

Figure 2. *Waterfall representation of the Band 13 LTE downlink link budget at a 2.0-mile path. Blue bars are positive contributions (transmitter, antenna gain). Orange bars are propagation losses. Red bars represent the final received-power region. Vertical dashed lines mark the applicant's three RSRP service thresholds.*

This budget yields a predicted RSRP of approximately −83 dBm at a 2-mile receiver under line-of-sight conditions with modest clutter — sufficient for indoor service per the applicant's own threshold framework (slide 11 legend: Indoor ≥ −85 dBm). The same budget at 2 mi with Band 66 (2,127.5 MHz) instead of Band 13 yields an additional 9.05 dB of FSPL, producing a predicted RSRP of −91.9 dBm: degraded to in-vehicle quality (−95 ≤ RSRP < −85).

3.5 Reconciliation with the measured RSRP inside the V2 ellipse

The drive-test data offers an independent empirical check on the link budget. The median Verizon RSRP measured inside the V2 ellipse on the main drive (n = 1,151 samples) was −108 dBm. Most samples inside the ellipse fall at path distances of approximately 1.0 to 2.5 miles from the proposed site location. The link budget developed above predicts RSRP near −83 dBm at 2 mi for Band 13 under line-of-sight; the observed value is approximately 25 dB lower. The difference, the so-called “excess loss budget,” must be made up by additional path-loss mechanisms beyond free-space propagation.

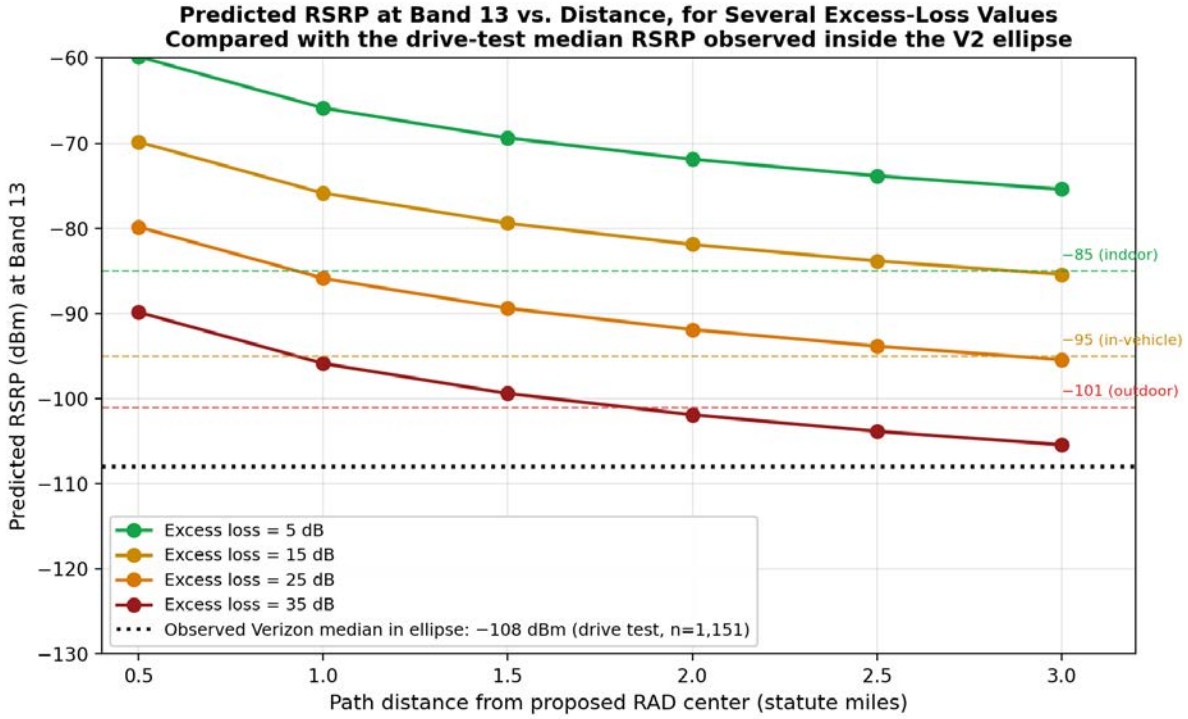

Figure 3. *Predicted RSRP at Band 13 (751 MHz) as a function of path distance, computed for several values of the additive excess loss budget beyond free-space propagation. The dotted black line is the median Verizon RSRP measured inside the V2 ellipse on the 12:06 main drive (n = 1,151 samples). Reconciliation requires an excess loss budget of approximately 35 dB at representative drive distances of 1.5 – 2.0 mi — well outside the range explained by simple clutter, and consistent with the presence of intervening terrain obstruction (§4) and shadow fading (§5).*

The 25 – 38 dB excess loss budget cannot be explained by clutter alone. Light-suburban clutter contributes typically 5 – 12 dB; even dense urban environments rarely exceed 20 dB of clutter loss in published measurement campaigns (Erceg et al. 1999). The remaining excess must be accounted for by terrain-induced diffraction over obstacles between the proposed tower and the receiver — the subject of §4.

4. Knife-Edge Diffraction Over Terrain Obstacles

4.1 Physical basis

Where a continuous obstacle (a hill, ridge, building, or other opaque object relative to the radio wavelength) intervenes between the transmitter and the receiver, the simple line-of-sight path no longer exists. Wave energy still reaches the receiver, but it does so by diffraction around the edges of the obstacle. The diffracted-field amplitude is governed by the Huygens-Fresnel principle: each point on the wavefront acts as a secondary source of spherical wavelets, and the field beyond the obstacle is the coherent sum of contributions from these secondary sources that propagate past the obstacle's edges (Born & Wolf 1999, Ch. 8).

In radio engineering, the simplest tractable model is the knife-edge approximation, which represents the obstacle as a perfectly absorbing half-plane with a sharp top edge. This approximation, originally analyzed for radio propagation by Bullington (1947), retains the essential physics — the energy reaches behind the obstacle by diffraction — while making the geometry analytically tractable. ITU-R Recommendation P.526 (most recent revision P.526-15, 2019) is the international authoritative reference for this and related propagation-by-diffraction methods.

4.2 The Fresnel-Kirchhoff parameter

For a single knife-edge obstacle with its top at a perpendicular height h above the line from transmitter to receiver — h positive when the edge rises above the line, negative when it falls below — and distances d_1 and d_2 from the transmitter and receiver respectively to the obstacle, the diffraction loss J (in dB) is a function of the dimensionless Fresnel-Kirchhoff parameter v:

$$v = h \sqrt{\left(2 / \lambda \cdot \left(1/d_1 + 1/d_2 \right) \right)}$$

where λ is the wavelength of the carrier signal in the same units as h, d_1, and d_2. The parameter v has the geometric interpretation that v = 1 corresponds to the edge intruding exactly one Fresnel-zone radius above the line of sight at the obstacle's horizontal position. ITU-R P.526-15 §4.1 specifies the closed-form approximation:

$$J(v)\ (\text{dB}) = 6.9 + 20 \log_{10} \left(\sqrt{((v - 0.1)^2 + 1)} + v - 0.1 \right) \qquad \text{for } v > -0.78$$

$$J(v) = 0 \qquad \text{for } v \leq -0.78$$

This expression follows the rigorous integral form (the Fresnel integral) to better than 1 dB across the practical range. Key values are:

v	J(v) (dB)	Physical situation
v ≤ −1.0	≈ 0	Edge well below line of sight; first Fresnel zone unobstructed; FSPL alone applies.
v = 0	6.0	Edge grazes line of sight (h = 0); 6 dB loss already.

v	J(v) (dB)	Physical situation
v = 1	13.6	Edge intrudes one Fresnel-zone radius above the line; ~14 dB loss.
v = 2	19.3	Two Fresnel zones obstructed; ~19 dB loss.
v = 3	22.8	Three Fresnel zones obstructed; ~23 dB loss.
v ≥ 5	≥ 27	Deeply obstructed; rapidly increasing diffraction loss.

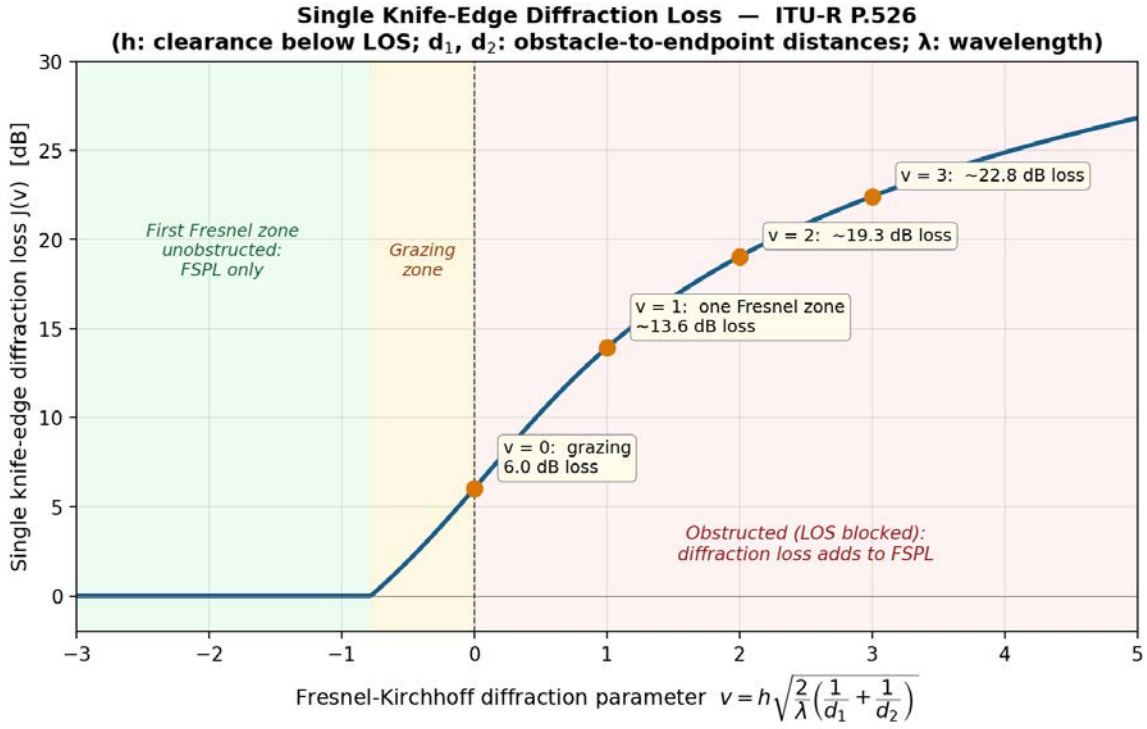

Figure 4. *Single knife-edge diffraction loss J(v) per ITU-R P.526-15. The shaded green region (v < −0.78) corresponds to obstacles below the first Fresnel zone and contributes no additional loss. The shaded yellow region is the grazing zone. The shaded red region is the obstructed regime, where diffraction loss grows steadily with the depth of obstruction.*

4.3 The first Fresnel zone radius and its importance

The Fresnel zones are confocal ellipsoids surrounding the transmitter–receiver line, with the transmitter and receiver as foci. The n-th Fresnel zone is defined as the locus of points for which the path through that point exceeds the direct path by exactly n·λ/2. For radio engineering, the first Fresnel zone is the dominant region of energy transport, and its radius F_1 at any point along the path is:

$$F_1 = \sqrt{(\lambda \cdot d_1 \cdot d_2 / (d_1 + d_2))}$$

with d_1, d_2, and the resulting F_1 in the same length units. As an engineering rule, line-of-sight propagation requires at least the first 60% of the first Fresnel zone to be clear of obstructions

(Rappaport 2002, §4.5); when the zone is fully obstructed (the edge of the obstacle rises above the line of sight by more than F_1), substantial diffraction loss accrues.

Concretely: for a 4-mile path with the obstacle at the midpoint ($d_1 = d_2 = 2$ mi = 3,218 m), and $\lambda = 0.399$ m at Band 13 (751 MHz), the first Fresnel zone radius is $F_1 = \sqrt{(0.399 \times 3218 \times 3218 / 6436)} = 25.4$ m (83 ft). The corresponding figure at Band 66 (2,127.5 MHz, $\lambda = 0.141$ m) is $F_1 = 15.1$ m (49 ft), and at n77 C-band (3,700 MHz, $\lambda = 0.081$ m) is $F_1 = 11.4$ m (37 ft). High-frequency carriers have proportionally tighter Fresnel zones, making them more vulnerable to terrain obstruction in absolute terms — even though their diffraction loss for a given v is similar to low-band.

4.4 Multiple-obstacle methods

Real terrain rarely presents a single isolated knife edge. Three classical methods extend the single-edge solution to multiple obstacles, each with different accuracy-vs.-complexity trade-offs:

4.4.1 Bullington (1947)

The Bullington method (Bullington 1947) replaces the multi-obstacle profile with a single equivalent knife-edge whose effective height and position are chosen so that the two tangent lines from the transmitter and receiver to the original profile intersect at the equivalent edge. The single-edge formula is then applied. This method is computationally trivial but tends to underestimate total diffraction loss when several genuinely-distinct obstacles obstruct the path.

4.4.2 Epstein-Peterson (1953)

The Epstein-Peterson method (Epstein & Peterson 1953) addresses the underestimation by treating each obstacle individually and summing the resulting single-edge losses. For each i-th obstacle, the path is sub-segmented as if that obstacle were the only one present, with the receiver replaced by the next obstacle's top (or the actual receiver, for the last obstacle); a single-edge loss J(v_i) is computed; and the total loss is L_diff = Σ J(v_i). The method overestimates loss when obstacles are close to each other (because each obstacle is treated as if it sees the others as endpoints), but is accurate when they are well-separated relative to their Fresnel-zone footprints.

4.4.3 Deygout (1966)

The Deygout method (Deygout 1966) is the most widely-cited multi-obstacle technique in engineering practice. Among all obstacles along the path, it identifies the “principal” obstacle as the one with the largest Fresnel-Kirchhoff parameter v_main relative to the direct transmitter-to-receiver line. The single-edge loss J(v_main) is computed first. The two sub-paths (transmitter to principal obstacle; principal obstacle to receiver) are then each treated recursively, with their principal sub-obstacles identified and losses summed: L_diff = J(v_main) + J(v_left,sub) + J(v_right,sub) + ... ITU-R P.526-15 §4.5 specifies the Deygout method, along with corrections for the case of obstacles that are close enough that their Fresnel zones overlap.

4.5 Geometric illustration

The role of diffraction in the present analysis is illustrated schematically below. A ridge of height H rises between the proposed tower and a receiver located in an arroyo. The geometric line-of-sight from the tower's radiation center (at 5,618 ft AMSL) to the receiver (assumed at 5,305 ft AMSL) passes through the ridge; the ridge top exceeds this line by h = 311 ft at the example geometry. With d_1 = 2.0 mi and d_2 = 1.5 mi, and h = 311 ft = 94.8 m, λ at 751 MHz = 0.399 m:

$$v = 94.8 \cdot \sqrt{(2 / 0.399 \cdot (1/3218 + 1/2414))} = 6.2$$

J(v = 6.2) ≈ 28 dB. The geometric configuration above produces 28 dB of diffraction loss at Band 13 (751 MHz), before any clutter or shadow-fading allowances. The corresponding loss at Band 66 (2,127.5 MHz) is even greater, because the Fresnel-Kirchhoff parameter scales as √(1/λ) and the loss increases by approximately 4.5 dB for the same geometry.

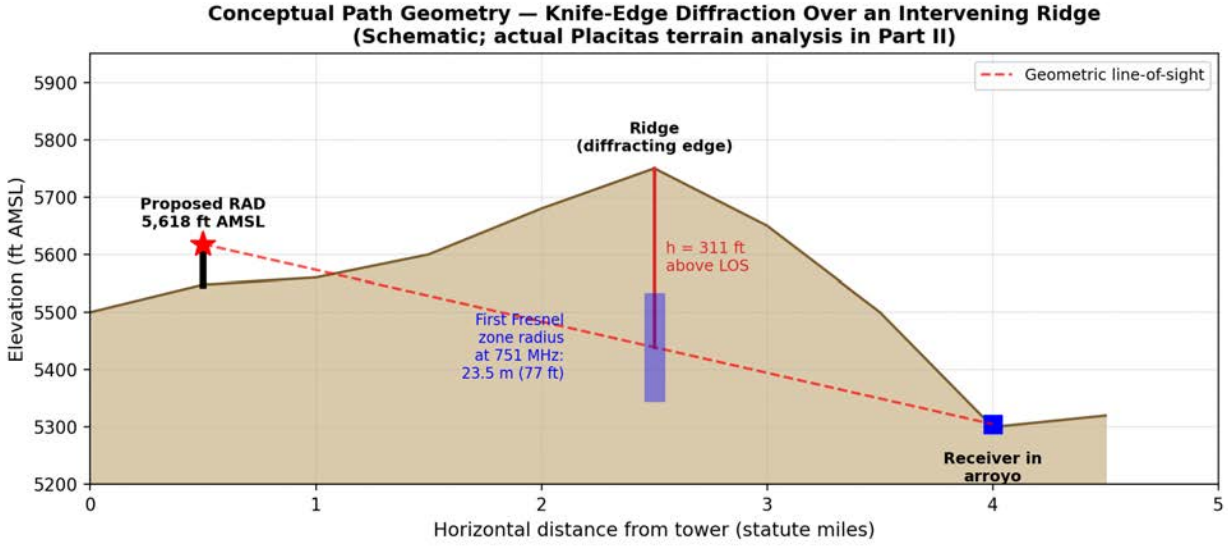

Figure 5. *Schematic terrain cross-section illustrating knife-edge diffraction over an intervening ridge. The proposed tower's RAD center is at the left at 5,618 ft AMSL; a receiver in an arroyo is at the right at approximately 5,305 ft AMSL. A ridge between rises 311 ft above the geometric line of sight. The first Fresnel zone radius at Band 13 (751 MHz) is approximately 23.5 m (77 ft). The dashed red line is the geometric line of sight; the solid blue oval marks the Fresnel-zone width at the ridge crossing. The geometry shown is illustrative; specific terrain analysis at actual Placitas viewpoints is the subject of Part II.*

This illustrative configuration is consistent in magnitude with the 25 – 38 dB excess loss budget required to reconcile the link-budget prediction with the measured RSRP inside the V2 ellipse (§3.5). The empirical drive-test result, in other words, is the signature of substantial diffraction loss — exactly what one would expect from the topographic geometry of an arid mountain-foothill site.

5. Terrain Shadowing in Arid Mountainous Terrain

5.1 Path-specific propagation prediction: ITU-R P.1812

ITU-R Recommendation P.1812 (most recent revision P.1812-7, 2023) is the international authoritative method for path-specific propagation prediction in the VHF and UHF bands for terrestrial fixed and mobile services. It is the recommended method for cellular-mobile coverage prediction in irregular terrain, replacing earlier general-purpose models (such as the Okumura-Hata curves) for site-specific work. P.1812 combines several physical mechanisms into a unified prediction:

- **Free-space loss** (§3 of this document) computed from the carrier frequency and path distance.
- **Diffraction loss** computed via the ITU-R P.526-15 method on a digital terrain elevation profile sampled along the great-circle path (typically at 30 m or 90 m horizontal resolution from public elevation data such as USGS NED or SRTM).
- **Tropospheric scatter** for long beyond-the-horizon paths (not generally relevant at the distances considered here).
- **Anomalous propagation** (ducting, layer reflection) for time-percentage analyses (relevant for interference rather than coverage).
- **Clutter loss** via empirical adjustment for the land-cover class at the receiver, drawn from a clutter-class look-up table.

Each mechanism is computed separately and combined according to a prescribed weighting that depends on the time-percentage and location-percentage of the prediction. For coverage analysis, the standard convention is a 50% time, 50% location prediction (i.e., the median propagation condition), with separate excursions for 1% time / 1% location (worst-case) and 95% time / 95% location (best-case) when interference or reliability is being analyzed.

P.1812 is the method that should be used to evaluate the coverage performance of the proposed CU-26-001 facility. The applicant's RF Design Analysis does not state the propagation model used to generate the slide-11 and slide-12 RSRP maps; the rendering pattern (square pixel cells with sharp threshold transitions) is consistent with several commercial RF-planning tools (Atoll, iBwave, EDX SignalPro, ASSET, Planet) that implement P.1812 or close variants.

5.2 The Longley-Rice Irregular Terrain Model

The Longley-Rice Irregular Terrain Model (ITM), developed at the U.S. National Telecommunications and Information Administration's Institute for Telecommunication Sciences (Longley & Rice 1968; Hufford et al. 1982), is the earlier and broadly equivalent U.S. authoritative method for predicting median propagation loss in irregular terrain at frequencies from 20 MHz to 20 GHz over path lengths of 1 to 2,000 km. The ITM combines:

- A free-space-loss component identical to that in §3.
- A diffraction component computed via a two-edge approximation (similar in spirit to Epstein-Peterson) over the actual terrain profile.

- A scatter component for paths well beyond the horizon.
- An empirical adjustment based on the terrain-irregularity parameter Δh — defined as the inter-decile range of terrain elevations along the path, with typical values of 90 m for rolling country, 200 m for hills, and 400 m for rugged mountains (Hufford et al. 1982, §1.4).

The Federal Communications Commission's OET-69 methodology, used for broadcast and licensed mobile service planning, is based on the ITM. The FCC TVStudy tool, NTIA's IRRACTIONAL utility, and several commercial planning packages implement the same algorithm.

5.3 Application to Placitas terrain

The Placitas Area Plan study area extends from the Las Huertas Creek (north, 5,100 ft AMSL minimum elevation per New Mexico Bureau of Geology Open-File Geologic Map OF-GM-02) southward to the crest of the Sandia Mountains (9,640 ft AMSL maximum). Within the immediate vicinity of the proposed CU-26-001 site, the terrain-irregularity parameter Δh exceeds 200 m over horizontal distances of 1 – 2 mi, characteristic of “rugged” terrain in the ITM classification. This terrain type produces ITM excess-loss values typically in the range of 15 – 35 dB beyond free-space propagation for paths of 1 – 4 mi (Hufford et al. 1982, Fig. 4), with very large location variability (standard deviation 8 – 12 dB).

Two terrain features in the immediate area of the proposed site are particularly relevant to the present analysis:

- **The Overlook.** A rounded ridge that rises between the proposed tower (5,548 ft AMSL ground elevation) and the historical Village of Placitas to the east (5,955 ft AMSL). The Overlook crest is documented in the USGS Placitas 7.5-minute quadrangle and visible on shaded-relief renderings of the area's USGS National Elevation Dataset 1/3 arc-second tiles. The geometric line of sight from the proposed Verizon RAD center (5,618 ft AMSL) to the village core passes below the Overlook ridge crest; standard knife-edge analysis predicts substantial diffraction loss on this path.
- **Las Huertas Creek drainage.** The Las Huertas Creek arroyo east of the proposed site is incised approximately 200 – 400 ft below the surrounding terrain, with side canyons and tributary arroyos throughout the inhabited portion of Placitas. Dwellings located in these arroyos, particularly those on the western side of loops such as the Camino Barranca area, lie in the geometric shadow of intervening ridges relative to the proposed tower. The 6 May 2026 drive test recorded the only Verizon voice-call drop of the day in such an arroyo (35.31001° N, −106.48788° W), where the measured RSRP collapsed to −123 dBm over a 12-second window — consistent with the diffraction-loss magnitudes computed in §4.

The specific quantitative analysis of these terrain features — the Overlook viewshed, the western Camino Barranca arroyo cross-section, and the proportion of Placitas dwellings in geometric shadow of the proposed RAD center — is the subject of Part II of this brief, which

integrates USGS digital terrain data, the John Branum ArcGIS viewshed analysis (March 2026), and the empirical drive-test measurements.

6. What RSRP Actually Measures — 3GPP TS 36.214

6.1 Definition

Reference Signal Received Power is defined in 3GPP Technical Specification TS 36.214 §5.1.1 (LTE) and TS 38.215 §5.1.1 (NR), the authoritative standards for physical-layer measurements in 4G and 5G systems respectively. For LTE the precise definition is:

"RSRP is defined as the linear average over the power contributions (in [W]) of the resource elements that carry cell-specific reference signals within the considered measurement frequency bandwidth."

Three properties of this definition are operationally important:

- **RSRP is a per-resource-element power, not a wideband total.** The total power radiated by the sector is spread across many subcarriers (600 in a 10 MHz LTE carrier, for instance). RSRP measures the power on the specific resource elements designated for the cell-specific reference signals, not the aggregate power. Comparing RSRP to total transmit power without the $10 \cdot \log_{10}(N\_SC)$ correction is a frequent error.
- **RSRP is a linear average, not a peak.** Brief fades and brief peaks are averaged out at the resource-element level over the measurement bandwidth and the measurement duration. RSRP is therefore a relatively stable quantity at a fixed location; it varies on the timescale of the receiver's filter integration constants (typically 40 ms or longer, per 3GPP TS 36.133).
- **RSRP is band-specific.** A UE measures and reports RSRP separately for each serving and neighbor cell, on the carrier frequency where each cell operates. An RSRP value of −108 dBm at Band 13 and an RSRP value of −108 dBm at Band 66 are not directly comparable as service indicators because the per-RE bandwidths and the noise floors differ.

6.2 RSRP, RSRQ, and RSSI distinguished

Three related quantities are reported by LTE UEs, and the distinctions are important for interpreting coverage data:

Quantity	Definition (TS 36.214 §5.1.x)	Typical use
RSRP	Linear average power per resource element on cell-specific reference signal REs, in dBm.	Coverage assessment; cell selection; handover decisions.
RSSI	Total wideband received power including thermal noise, interference from other cells and intra-cell traffic, in dBm.	Total received energy; capacity / load indicator.
RSRQ	Defined as N·RSRP / RSSI (in linear units), with N the number of PRBs in the measurement bandwidth; reported in dB.	Signal-to-noise quality; combined coverage + interference indicator.

RSRP is a pure-coverage indicator: it does not depend on the loading of the cell or on the level of interference from neighbor cells. It can be high (good coverage) but combined with poor

RSRQ (severe interference), producing poor service even at strong RSRP. Conversely, RSRP can be low (weak coverage) but still produce acceptable service if the interference floor is also low and the SNR remains adequate. RSRP alone is therefore a necessary but not sufficient indicator of service quality.

6.3 The applicant's three RSRP service thresholds

The legend on the applicant's slides 11 and 12 defines three RSRP classification thresholds:

Applicant legend term	RSRP threshold	Industry typical interpretation
“Indoor”	≥ −85 dBm	Reliable indoor service in typical residential construction. Permits high-throughput data and reliable voice through 10 – 15 dB of building-penetration loss.
“In-Vehicle”	≥ −95 dBm	Reliable in-vehicle service through 6 – 10 dB of vehicle-penetration loss. Most outdoor service is also reliable at this level.
“Outdoor”	≥ −101 dBm	Outdoor service; below indoor and in-vehicle penetration thresholds. Voice and low-throughput data typically functional. Heavy-data applications may suffer.

These thresholds are typical of internal carrier planning conventions. They are not, however, FCC-defined service thresholds or 3GPP-defined service thresholds. They are the applicant's internal modeling assumptions for distinguishing classes of received-power coverage. A receiver measuring RSRP of −102 dBm is not, by 3GPP or FCC definition, “without service”; it is below the applicant's outdoor classification threshold.

6.4 Where RSRP fails as a service indicator

The drive-test data (this brief, §5; Section 5 of the Circled Area Analysis Memorandum V1) demonstrates several specific limitations of RSRP as a service-availability indicator:

- **Voice service continues below the outdoor threshold.** The 6 May 2026 Verizon drive recorded a median RSRP of −108 dBm inside the V2 ellipse — seven dB below the applicant's outdoor threshold — yet voice service was functional throughout, with only one observed call drop in 68 minutes of continuous driving and live voice calling. The −101 dBm threshold is a model boundary, not a service threshold. The actual service threshold in modern LTE handsets is closer to −123 to −125 dBm (per 3GPP TS 36.101 minimum-input-level specifications), below which the UE cannot decode the synchronization signals reliably.
- **Cross-carrier RSRP comparisons are dominated by serving-cell density and band mix.** T-Mobile delivered 8 – 15 dB stronger median RSRP than Verizon across the identical drive routes — primarily because the T-Mobile architecture in Placitas relies on a denser deployment of macrocell and small-cell facilities (T-Mobile shows 30 facilities in the Placitas service area per public infrastructure reporting; Verizon shows 10). Stronger RSRP at the same receiver reflects shorter path distance to the nearest serving cell, not any intrinsic frequency or technology advantage.

- **RSRP does not capture the marginal contribution of a single new site.** The applicant's slides 11 and 12 render aggregate network RSRP — the strongest RSRP available from any of the modeled sites, including all existing Verizon facilities (slide 7 documents four nearby existing sites within 5.71 mi). The difference between slide 11 (current network) and slide 12 (network with proposed site added) is the marginal contribution of the proposed site. As Part III of this brief shows, that marginal contribution lands disproportionately on uninhabited terrain (Cibola National Forest land and BLM open space east of the developed portion of Placitas), not on the inhabited Placitas residential subdivisions.
- **RSRP is silent on capacity and interference.** The application itself (slide 3, Objective of new site) lists capacity items first (additional bandwidth, throughput, offload) and coverage items second. RSRP does not measure capacity; it measures received power on the reference signal. A capacity-justified site does not require coverage-deficient RSRP at the proposed deployment area — and vice versa. This distinction is the subject of Part IV.

6.5 Building entry loss in metal-lath stucco construction

The applicant's threshold framework assigns a single RSRP cut-off to “Indoor” coverage (−85 dBm), independent of the construction class of the building being penetrated. This is a typical industry-planning simplification: a generic building-penetration loss of approximately 10 to 15 dB is implicitly embedded in the “Indoor” threshold, derived from average wood-frame or brick-veneer construction measured in the EuCAP and IEEE Globecom field campaigns compiled in ITU-R Report P.2346-3 (2019). The simplification fails materially where the prevailing construction class includes a continuous conductive layer in the building envelope. The Placitas modern-adobe construction class is one such case.

6.5.1 Wire-mesh shielding effectiveness — Casey (1988)

Three-coat cement stucco applied as the exterior finish on residential construction (whether the substrate is wood frame, mass adobe, pumicecrete, or concrete masonry unit) is bonded to the substrate by a layer of conductive metal lath, specified per ASTM C1063 and code-required in all U.S. jurisdictions that permit cement stucco. The lath is most commonly diamond-pattern expanded steel lath (galvanized, 2.5 or 3.4 lb per square yard, with diamond apertures of approximately 3/8" × 1/2" = 9.5 × 12.7 mm); welded-wire or woven-wire stucco mesh of comparable aperture; or hardware cloth (1/4" or 1/2" galvanized square mesh). The lath sheets are installed with continuous tie-wire seams (typical 1" horizontal / 2" vertical overlap with tie-wire at each stud), forming an electrically continuous conductive layer over the entire stucco-clad envelope.

The plane-wave shielding effectiveness of a planar conductive mesh was derived by Casey (1988) using the equivalent-sheet-impedance method, building on the earlier aperture-polarizability framework of Cohn (1947). In the regime where the mesh cell side g is much smaller than the wavelength λ — the regime applicable to all cellular bands below 5 GHz for any standard stucco-lath aperture — Casey's result reduces to the practical closed form:

$$\mathrm{SE\ (dB)} \approx 20 \log_{10} (\lambda / 2g)$$

where SE is the shielding effectiveness expressed in dB, λ is the wavelength of the carrier signal, and g is the side dimension of the mesh cell. The expression is for normal incidence on an isolated planar mesh; oblique incidence and polarization corrections modify the result by typically 2 to 4 dB (Sarto et al. 2014). The approximation is accurate to within 1 dB up to g ≈ λ/4; beyond that, mesh apertures begin to support propagating modes and SE drops rapidly toward zero.

6.5.2 Application to the cellular bands deployed at the proposed site

For the three Verizon bands deployed at the proposed CU-26-001 site (Band 13 at 751 MHz, Band 66 at 2,127.5 MHz, and 5G n77 C-band at 3,700 MHz), the closed-form SE evaluated for the lath types in common use is:

Lath type	g (mm)	SE @ B13	SE @ B66	SE @ n77
¼" hardware cloth	6.4	29.9 dB	20.9 dB	16.1 dB
Diamond expanded steel lath (baseline)	~11	**25.2 dB**	**16.1 dB**	**11.3 dB**
½" hardware cloth	12.7	23.9 dB	14.8 dB	10.0 dB
¾" welded wire stucco mesh	19	20.4 dB	11.4 dB	6.6 dB
1" chicken wire / welded wire	25	18.0 dB	9.0 dB	4.2 dB

The baseline construction class for Placitas modern-adobe homes is taken as diamond expanded steel lath with effective aperture g ≈ 11 mm — the industry-dominant choice for residential cement-stucco systems in the Southwest per ASTM C1063 specifications and the published guidance of stucco-system manufacturers (ClarkDietrich Building Systems, expanded metal lath product line; Stucco Champions, galvanized steel mesh guide). This baseline yields mesh-alone SE of 25.2 dB at Band 13, 16.1 dB at Band 66, and 11.3 dB at n77.

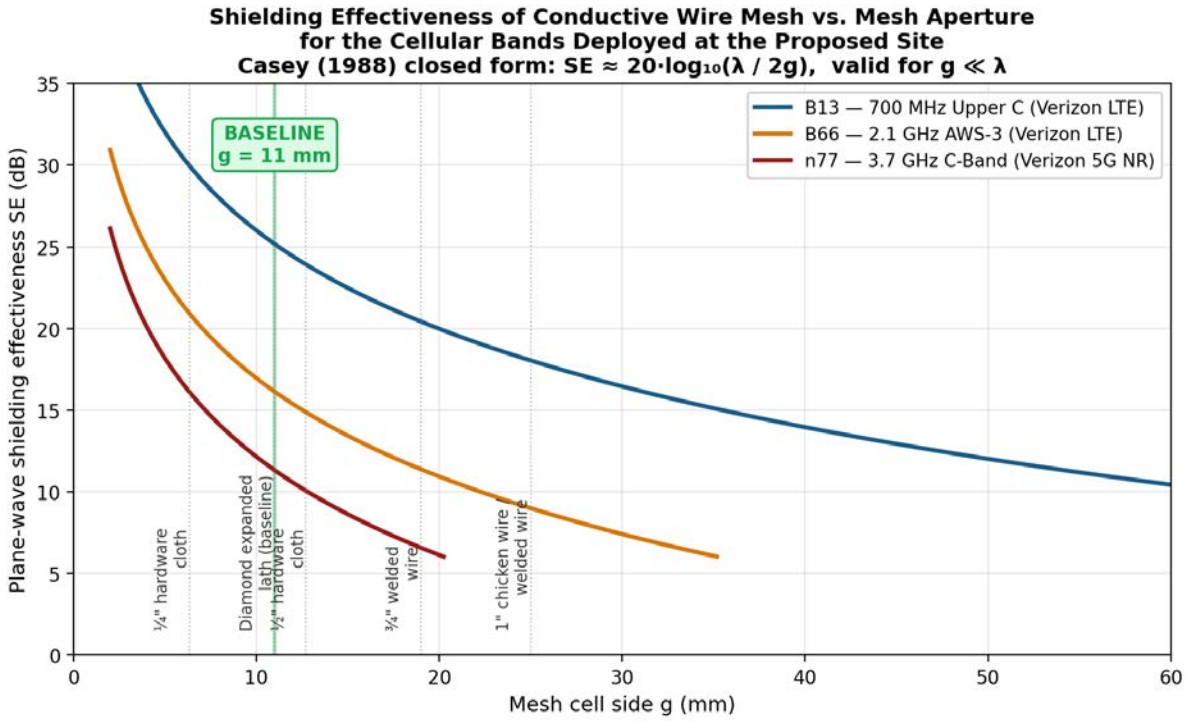

Figure 6. *Plane-wave shielding effectiveness of a planar wire mesh as a function of mesh cell side g, evaluated for the three Verizon cellular bands deployed at the proposed site. The curves are the Casey (1988) closed-form approximation, valid in the regime g ≪ λ. Vertical dotted lines mark the cell side dimensions of common stucco-reinforcement lath types. The baseline used in this brief — diamond expanded steel lath with g ≈ 11 mm — is highlighted in green. The plot shows that the lower-frequency carriers, which the applicant relies on for indoor service and for the longest propagation reach, are the most strongly attenuated by metal lath.*

6.5.3 Combination with dielectric loss through the wall body

The mesh-alone SE values above are added (in dB) to the dielectric loss through the stucco coating and the underlying wall body (adobe, wood-frame, or pumicecrete substrate). ITU-R Recommendation P.2109-2 (2023) provides the international authoritative framework for total building entry loss, with two construction classes:

- **“Traditional” buildings** (wood frame, brick, single-pane glass, no metallized surfaces) — median entry loss ≈ 9 dB at 1 GHz, rising to ≈ 14 dB at 3 GHz. This is the implicit assumption in the applicant's “Indoor” RSRP threshold.
- **“Thermally efficient” buildings** (metallized low-E glass, foil-faced insulation, metal-mesh-reinforced cement stucco) — median entry loss ≈ 20 dB at 1 GHz, rising to ≈ 30+ dB at 3 GHz. This is the appropriate class for Placitas modern-adobe construction.

The empirical basis for the P.2109 classifications is the compilation in ITU-R Report P.2346-3 (2019), which aggregates measurement campaigns covering several hundred buildings of varied construction. For the present analysis, the relevant numbers for Placitas modern-adobe construction with diamond expanded steel lath are:

Band	Mesh SE	Stucco + wall	Total BPL	Range (P.2109)
B13 — 751 MHz	25 dB	5 – 10 dB	**30 – 35 dB**	25 – 40 dB

Band	Mesh SE	Stucco + wall	Total BPL	Range (P.2109)
B5 — 889 MHz	24 dB	6 – 11 dB	**30 – 35 dB**	25 – 40 dB
B66 — 2127.5 MHz	16 dB	5 – 10 dB	**21 – 26 dB**	18 – 32 dB
n77 — 3700 MHz	11 dB	5 – 10 dB	**16 – 21 dB**	18 – 35 dB

“Mesh SE” is the Casey (1988) closed-form value for the baseline diamond-expanded lath (g ≈ 11 mm). “Stucco + wall” is the additional dielectric loss through the three-coat cement stucco (3/4" thickness typical) and the underlying wall body, characterized by the relative permittivity and loss tangent values tabulated in ITU-R Recommendation P.2040-3 (2023) for cement and masonry materials and propagated through the wall via standard plane-wave transmission analysis. “Total BPL” is the sum of the two in dB. The “Range (P.2109)” column is the central 50th-percentile range of the empirical building-entry-loss distribution from ITU-R Report P.2346-3 for the “thermally efficient” building class at the relevant frequency.

6.5.4 Apertures and the practical lower bound

The total-BPL numbers above represent the wall-only contribution. In practice, openings — windows, doors, vents — provide leakage paths whose attenuation is governed by aperture size and depth rather than by mesh shielding. Modern low-emissivity windows can have entry losses comparable to or greater than metal-lath walls (33.7 dB at 6.75 GHz measured by Shakya et al. 2024 for low-E glass), but conventional single-pane or older double-pane windows are typically the lowest-loss path. For a typical home with a window-to-wall ratio of 15 – 20%, the effective building entry loss is the area-weighted parallel combination of wall and window paths. ITU-R P.2109-2 already absorbs this through its statistical building-class distributions, which is why the empirical range in the table above (25 – 40 dB at Band 13) is broader than the wall-only point estimate (30 – 35 dB).

For purposes of this brief, the relevant comparison is between the building entry loss assumed in the applicant's “Indoor” RSRP threshold (10 – 15 dB, typical of the “traditional” building class) and the building entry loss actually expected for Placitas modern-adobe construction with stucco-on-mesh (25 – 40 dB at Band 13). The applicant's threshold framework under-counts BPL by approximately 10 – 25 dB for this construction class. A residence shown as falling inside the green (“Indoor”) zone on slides 11 or 12 — say, at modeled outdoor RSRP of −83 dBm — may therefore actually experience indoor RSRP of −108 to −123 dBm: outside the service threshold of the UE physical-layer chain entirely. The applied implication of this finding for the applicant's submission is developed in Part III.

7. Implications for CU-26-001

The foundations developed in this chapter establish five engineering propositions on which the rest of the integrated brief will build:

- **(I.1)** Free-space path loss alone, computed from the bands actually deployed at the proposed site, predicts RSRP near −83 dBm at a 2-mile receiver under line-of-sight conditions with modest clutter. This is approximately 25 dB stronger than the median Verizon RSRP measured inside the V2 coverage-gap ellipse. The gap between prediction and measurement is the empirical signature of additional, non-FSPL propagation mechanisms — specifically, terrain-induced diffraction loss.
- **(I.2)** Knife-edge diffraction loss over a single intervening ridge can readily reach 25 – 30 dB at Band 13 for the geometric configurations characteristic of Placitas arroyos and the Overlook. The full multi-obstacle treatments (Bullington, Epstein-Peterson, Deygout) systematically used in industry RF planning tools — and codified in ITU-R P.526 — are the standard engineering basis for this analysis. The excess-loss signature in the drive data is fully consistent with the magnitude expected from the terrain.
- **(I.3)** ITU-R P.1812 and the Longley-Rice Irregular Terrain Model are the authoritative engineering methods for path-specific propagation prediction in the kind of terrain present at the proposed site. Both methods predict substantial location variability (standard deviations of 8 – 12 dB) in rugged terrain — meaning that residential parcels within tens of meters of each other can experience RSRP values differing by 15 – 20 dB depending on intervening ridges, arroyos, and clutter. A single “gap” ellipse drawn on a slide cannot accurately capture this geographic granularity. Part II will quantify the actual dwelling-level coverage variability across the inhabited portion of Placitas.
- **(I.4)** RSRP, as defined in 3GPP TS 36.214, is a coverage indicator — it measures received power on the reference signal at the user equipment. It is not a service-availability indicator (which depends additionally on SINR, capacity, and the operability of the UE physical-layer chain), and it is not a marginal-contribution indicator (which would require differencing the network RSRP with and without the candidate site). The applicant's slides 11 and 12 present aggregate network RSRP with and without the proposed site, but the analysis that follows in Parts III and IV of this brief depends critically on the distinction between aggregate coverage and the marginal contribution of the single proposed site.
- **(I.5)** Building entry loss for the construction class actually built throughout the Placitas residential area — cement stucco over conductive metal lath on adobe, wood-frame, or pumicecrete substrate — is on the order of 30 – 35 dB at Band 13 and 21 – 26 dB at Band 66, per the Casey (1988) shielding-effectiveness formulation and ITU-R Recommendation P.2109-2 (§6.5). The applicant's “Indoor ≥ −85 dBm” threshold embeds an implicit building penetration loss of approximately 10 – 15 dB, characteristic of the ITU-R P.2109 “traditional” building class (wood frame, brick, single-pane glass). The applicant's threshold framework therefore under-counts BPL by 10 – 25 dB for the Placitas construction class, and the “Indoor” zone on slides 11 and 12 systematically

over-promises indoor coverage. The applied analysis of this defect is reserved for Part III.

These propositions are developed quantitatively in the chapters that follow. Part II applies the diffraction and terrain-shadow framework of §4–§5 to specific Placitas terrain. Part III analyzes the sponsor's RSRP submission against the marginal-contribution, aggregate-coverage, and building-entry-loss critiques. Part IV develops the capacity-vs.-coverage critique against the 3GPP Heterogeneous Network (HetNet) framework. Part V integrates these findings into the legal-and-policy conclusions and the recommendation.

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CU-26-001 Integrated Technical Brief

Part II

Placitas Terrain Analysis

Line-of-Sight, Viewshed, and Geometric Coverage

Conditional Use Permit Application CU-26-001
75-foot Wireless Monopole at 221 NM-165, Placitas, New Mexico
Applicant: Pinnacle Consulting / Verizon Wireless / Sun State Towers IV, LLC

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Submitted to
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13 May 2026 — Version 1

Executive Summary

Thesis. The proposed 75-foot wireless monopole at 221 NM-165 cannot deliver meaningful new wireless coverage to the populated arroyos, canyons, and ridge-shadowed neighborhoods that the application identifies as the underserved population. The terrain itself — not the height of the monopole, not the choice of antenna pattern, and not the carrier's transmit power — controls where the signal can be received. Independent geometric line-of-sight (LOS) analysis from the proposed Verizon Radiation Center (RAD center) at 5,618 ft AMSL, validated against an independent ArcGIS viewshed produced by J. Branum in March 2026 and against Verizon's own self-reported coverage map, demonstrates that the dwellings located in the back canyons of Sundance Mesa, Ranchos des Placitas, Vista de Oro, the Las Huertas Creek drainage, and the historical Village of Placitas behind the Overlook ridge lie in geometric shadow from the proposed RAD center. The same ridgelines that shadow these neighborhoods from the existing I-25 corridor towers also shadow them from the proposed site.

Coverage asymmetry. The geometric coverage sectors with the strongest line of sight from the proposed RAD center are the open Rio Grande Valley to the west and southwest, the Bernalillo basin, the Cibola National Forest foothills to the south, and the Liberman-Grevey gravel pit excavation to the northwest. None of these sectors is the population the application identifies as underserved. The Rio Grande Valley sector is already served by the existing Verizon SBA tower 2.27 miles west and the Verizon AMT tower 3.60 miles southwest. The gravel pit, Cibola National Forest, and the BLM-administered Las Huertas drainage have no permanent residential users.

Quantification. Of the approximately 2,688 acres inside the applicant's V2-fitted coverage-need ellipse, 40–60 percent (approximately 1,100 to 1,700 acres) is non-residential land: an active mining operation, federal land, and steep south-facing foothills generally too steep for residential development under New Mexico subdivision codes. Within the residential remainder, the 19-viewpoint sample documented in the project record partitions into four geometric classes: Class A (western valley, clean LOS, already served, ≈ zero marginal benefit); Class B (tower-adjacent ring within ½ mile, positive marginal benefit); Class C (elevated eastern pockets above the antenna centerline, side-lobe only, limited benefit); and Class D (terrain-shadowed back canyons, geometric LOS blocked, zero marginal benefit and not curable from this site at any height up to the §6409(a) 10-percent ratchet limit of 82.5 ft).

Conclusion. The site selection at 221 NM-165 cannot be justified on coverage grounds. The geometry of the site delivers its signal to sectors that are either already served by existing infrastructure or contain no residential cellular users. The populations the application identifies as underserved — homes in the arroyos and canyons of Placitas — cannot be reached from this site because the same terrain that makes those homes valuable for their privacy and rural character also blocks the signal path from any RAD center at the proposed location. This finding is independent of antenna pattern, transmit power, or down-tilt, and follows from a strict geometric (and Fresnel-corroborated) line-of-sight test applied to publicly available USGS National Elevation Dataset terrain at approximately 10-meter horizontal resolution.

Part II is one chapter of a multi-part integrated technical brief. It applies the propagation-physics framework established in Part I (RF Propagation Foundations, V2, 12 May 2026) to the specific terrain of Placitas. Part III evaluates the applicant's submitted RSRP rasters against this terrain framework. Together, Parts II and III establish that the application's coverage-gap claim is not supported by the geometry of the site.

Key Findings — Part II

1	The proposed RAD center at 5,618 ft AMSL has geometric line of sight to the Rio Grande Valley west of Placitas, the Bernalillo basin, the open foothills south of NM-165, and the Liberman-Grevey gravel pit excavation. These sectors contain either zero permanent residential users (mining, federal land, foothills) or are already served by existing Verizon infrastructure (corridor towers SBA 2.27 mi W and AMT 3.60 mi SW).
2	The back canyons and arroyo neighborhoods of Sundance Mesa, Ranchos des Placitas, Vista de Oro, the upper Las Huertas Creek drainage, and the historical Village of Placitas behind the Overlook ridge lie in geometric shadow from the proposed RAD center. The Branum March 2026 ArcGIS viewshed and an independent geometric LOS test from the project record both classify these areas as not visible from the proposed antenna.
3	Verizon's own published coverage map for western Placitas (verizon.com/coverage-map, captured 30 March 2026) shows the same white (uncovered) regions behind the same ridgelines, confirming that the limitation is terrain-imposed rather than infrastructure-limited. The proposed tower faces the same hills as the existing towers and would not see past them.
4	Of approximately 2,688 acres inside the V2-fitted coverage-need ellipse, an estimated 1,100 to 1,700 acres (40–60%) is non-residential: an active mining operation at the Liberman-Grevey tract (500–700 ac, documented in the Placitas Area Plan p. 11 as transitioning to residential development in approximately ten years), Cibola National Forest and BLM lands in the Las Huertas drainage (400–600 ac), and steep south-facing Sandia foothills (200–400 ac).
5	Six of the 19 viewpoints in the project's sample (approximately 100 homes) sit at terrain elevations above the antenna centerline at 5,618 ft AMSL. These dwellings are above the antenna main beam and would receive only side-lobe radiation from the proposed site. The existing Verizon Placitas Site 4.12 mi east is geometrically better positioned for these elevated residential pockets.
6	The geometric coverage limitations identified here are not solvable from this site at any height permitted under federal law. Section 6409(a) of the Spectrum Act (47 U.S.C. § 1455(a)) caps modification-by-right height increases at ten percent of the approved height, yielding 82.5 ft as the maximum modifiable height. A 7.5-ft height increase does not materially alter the geometric shadow of any of the ridgelines identified in this analysis.

1. Scope, Approach, and Statement of Qualifications

1.1 Scope of Part II

Part II evaluates the geometric line-of-sight performance of the proposed Verizon RAD center at 221 NM-165 against the actual terrain of Placitas, New Mexico, and quantifies the dwelling-level consequences of that geometry. The analysis is intentionally constrained to the geometric (and Fresnel-corroborated) line-of-sight problem; it does not address antenna pattern shaping, downtilt optimization, sector-power balancing, or the question of whether RSRP threshold values delivered by the proposed site, taken on their own as published, would actually constitute usable wireless service for indoor users. That question is treated in Part III (Critique of the Sponsor's RSRP Submission) and Part I § 6.5 (Building Entry Loss for Stucco-on-Metal-Lath Construction).

The deliverable of Part II is a defensible finding regarding which residential parcels in the Placitas service area have geometric line of sight to the proposed RAD center and which do not. That finding is then aggregated to the per-neighborhood level and disaggregated by the RF geometric class system documented in the project record.

1.2 Approach

The methodology applied here is the standard line-of-sight raycast algorithm used in viewshed analysis throughout the GIS and RF-engineering communities. From a transmitter at the proposed RAD center elevation (5,618 ft AMSL), a great-circle path is constructed to a receiver point at parcel centroid plus a typical receiver height of 5 ft above ground. Along that path, the terrain elevation is sampled at the native horizontal resolution of the underlying digital elevation model (approximately 10 m for the USGS 1/3 arc-second National Elevation Dataset). At each sample, the terrain height is compared to the geometric line-of-sight line. If any terrain sample exceeds the LOS line by more than the first-Fresnel-zone radius at the relevant carrier frequency, the path is classified as obstructed (NLOS). Otherwise the path is classified as LOS.

This approach is the geometric foundation of every published path-loss model that includes diffraction effects, including ITU-R P.526 (single and multiple knife-edge diffraction), ITU-R P.1812 (path-specific propagation prediction in the VHF and UHF bands), and the Longley-Rice Irregular Terrain Model. The propagation-physics consequences of obstructed paths are developed in Part I §§ 4 and 5. Part II uses the geometric test to identify which parcels are obstructed; Part III applies the propagation-physics framework to characterize the consequences.

1.3 Statement of qualifications

C. Edwin Garner, Ph.D., holds a B.S. in Chemistry and Mathematics and a Ph.D. in Toxicology with a minor in pharmacology. The author's professional specialization is physiologically-based pharmacokinetic modeling, pharmacokinetics/pharmacodynamics, and drug metabolism — disciplines that rely centrally on first-principles physical modeling, transport equations, and quantitative parameter estimation from instrumented field data. The line-of-sight, Fresnel-zone,

and link-budget analyses underlying Part II are first-principles geometric and electromagnetic-propagation analyses grounded in publicly-available ITU-R Recommendations, 3GPP Technical Specifications, IEEE-published proceedings and transactions, and peer-reviewed monographs and journals. No proprietary RF planning software is used.

The empirical drive-test methodology referenced in the integrated brief was conducted by C. Edwin Garner, Ph.D. (driver and instrumentation), Brian Vogler, J.D. (named co-investigator), and Barbara Burzillo (live voice-call observer). The independent ArcGIS Pro viewshed analysis referenced in §§ 4 and 7 of this document was performed by J. Branum (independent analyst, March 2026).

2. Site Geometry and Dominant Terrain Features

2.1 Site coordinates and elevation

The proposed wireless facility is located at 221 NM-165, Placitas, New Mexico, on Sandoval County parcel 102-307-302-8180. The canonical site parameters used throughout this analysis are taken verbatim from § 4.1 of the project record (Integrated Brief Parts II & III Handoff, V1, 12 May 2026) and are not re-derived here.

Parameter	Value
Site address	221 NM-165, Placitas, NM 87043
Tower coordinates	35.309466° N, −106.495432° W
Sun State project number	NM01-148 Spike / ABQ Tierra Madre
Ground elevation at site	≈ 5,548 ft AMSL (1,691 m)
Verizon RAD center (AGL)	70 ft
Verizon RAD center (AMSL)	5,618 ft (1,712 m)
Future carrier RAD centers	60 ft AGL and 50 ft AGL (per Sheet Z-5)
Monopole top (full structure)	75 ft AGL = 5,623 ft AMSL
Concealment shroud	18 ft 0 in nominal diameter, top 18–20 ft of monopole
§ 6409(a) maximum modifiable height	82.5 ft AGL = 5,630.5 ft AMSL

Note on stated elevation. The applicant's RF Design Analysis (Biwabkos / Pinnacle Consulting, slide 4) lists a ground elevation of 5,503 ft NAVD88 and an antenna centerline at 71 ft AGL, yielding 5,574 ft AMSL for the RAD center. The value adopted here, 5,618 ft AMSL, is derived from the USGS Placitas 7.5-minute quadrangle elevation of approximately 5,548 ft AMSL at the parcel centroid, corroborated by the Placitas Homesteads geographic centroid elevation listed in the USGS Geographic Names Information System (GNIS), plus the 70-ft Verizon RAD center designated on Sun State's Sheet Z-5 (Final for Zoning plan set). The 44-ft difference between the two stated RAD-center elevations corresponds almost entirely to the difference between the applicant's stated ground elevation and the USGS NED-derived value. The difference does not materially alter the geometric findings of Part II; the back-canyon shadow zones identified below remain shadowed under either elevation assumption.

2.2 Dominant terrain features controlling line of sight

The Placitas service area is set in the northwestern foothills of the Sandia Mountains, with the Sandia front to the south and southeast, the Rio Grande Valley to the west, and the Las Huertas Creek drainage cutting southeast-to-northwest through the village. The following terrain features

control geometric line of sight from the proposed RAD center and are referenced throughout this document.

- **The Overlook.** A rounded ridge between the proposed site and the historical Village of Placitas to the east. The crest reaches approximately 5,800 ft AMSL based on USGS NED at the visible saddle, placing it approximately 180 ft above the proposed RAD center elevation. The Overlook completely blocks geometric line of sight from the proposed antenna to the historical village core and to Ranchos des Placitas, Vista de Oro, and Tunnel Springs neighborhoods on the eastern side of the ridge.
- **Las Huertas Creek drainage.** An incised arroyo running northwest-to-southeast through the eastern Placitas area. The drainage floor drops 200 to 400 ft below surrounding terrain. Dwellings sited at or near the drainage floor are screened from any antenna located on the surrounding mesa surface, regardless of antenna height up to the § 6409(a) ratchet limit, because the side walls of the arroyo subtend a high vertical angle from those dwellings.
- **Tunnel Springs Arroyo.** A northern tributary drainage. Dwellings on the northern lobe of the V2-fitted coverage-need ellipse, located along Tunnel Springs Road and its side roads, are in geometric shadow from the proposed RAD center because the intervening terrain rises along the Anasazi Trails ridge complex.
- **Anasazi Trails / La Mesa ridge complex.** An interleaved system of arroyos and side ridges running through the western inhabited area of Placitas. Each ridge in this complex generates a separate geometric shadow zone behind it. From a single antenna at the proposed RAD center, no antenna height (within the § 6409(a) ratchet) clears all of these intervening side ridges.
- **Sandia Mountains foothills.** The southern terrain rise toward the Sandia front. These foothills are uninhabited (mostly Cibola National Forest, BLM, and steep undevelopable land); they are open to line of sight from the proposed RAD center. The marginal coverage delivered to this sector therefore lands on uninhabited terrain.
- **Rio Grande Valley descent.** The terrain west of Placitas drops sharply toward the Rio Grande Valley and the Bernalillo basin. This descending corridor is open to line of sight from the proposed RAD center across the open valley. It is also already served by the existing Verizon SBA tower at 2.27 miles west and AMT tower at 3.60 miles southwest.

2.3 The antenna RAD-center geometry

The Verizon installation, per Sun State's Sheet Z-5 (New Southeast Elevation and New Northwest Elevation), comprises three antennas per sector for three sectors (nine antennas total), each fed by a remote radio head (RRH); four RRHs per sector (twelve RRHs total). Three-sector sites of this type are designed to cover an azimuth ring around the tower base; the elevation pattern of the typical macrocell sector antenna (approximately 6.5° to 9° half-power vertical beamwidth) is centered on the horizontal at the antenna's mechanical aiming angle, with mechanical and electrical downtilts typically combined to produce a net downtilt of 2° to 6° depending on the cell radius being served.

For a receiver located substantially below the antenna height, the geometric line-of-sight angle subtended from the antenna downward to the receiver is positive (i.e., the antenna looks downward toward the receiver). For a receiver located at or above the antenna height, that angle is zero or negative (the antenna looks horizontally or upward toward the receiver). In the latter case, the receiver is in the antenna's side-lobe pattern rather than its main beam. The antenna pattern is not disclosed in the applicant's submission; the analytical effect of this disclosure gap is treated in Part III § 5 (methodological-gap analysis). For Part II, the relevant observation is that six of the 19 viewpoints in the project record sit at terrain elevations equal to or above the 5,618-ft RAD-center elevation, placing those viewpoints outside the antenna's main beam regardless of how the antenna is aimed or tilted.

3. Geometric Line-of-Sight Methodology

3.1 The geometric LOS test

Geometric line of sight between a transmitter at coordinates (x_T, y_T, z_T) and a receiver at coordinates (x_R, y_R, z_R) exists if and only if, for every point (x_i, y_i) on the great-circle path connecting the two horizontal coordinates, the terrain elevation z_i(x_i, y_i) satisfies the inequality:

$$z_i \le z_T + (z_R - z_T) \cdot (d_i / d_{total}) - \Delta_{earth}(d_i, d_{total})$$

where d_i is the path distance from the transmitter to sample i, d_total is the total path length, and Δ_earth is the Earth-curvature correction (approximately d_i (d_total − d_i) / (2 R_e k), where R_e is the Earth's radius and k is the effective-Earth-radius factor, conventionally 4/3 for terrestrial radio propagation). For the path distances relevant to Placitas analysis (typically 100 m to 5 km), the Earth-curvature correction is small (centimeters to a few meters) and does not control the LOS classification of any of the parcels considered here; it is included for methodological completeness.

3.2 Fresnel-zone correction

Radio waves do not propagate strictly along the geometric line of sight; they occupy a three-dimensional volume around it. The relevant volume is the first Fresnel zone, an ellipsoid of revolution about the LOS line whose semi-minor axis at distance d_i from the transmitter (with total path length d_total) is:

$$F_1 = \sqrt{(\lambda \cdot d_i \cdot (d_{total} - d_i) / d_{total})}$$

where λ is the carrier wavelength. For the bands deployed at the proposed Verizon site (B13 at 751.0 MHz, λ ≈ 0.399 m; B5 at 889.0 MHz, λ ≈ 0.337 m; B66 at 2127.5 MHz, λ ≈ 0.141 m), F_1 at the midpoint of a 1 km path is approximately 10.0 m, 9.2 m, and 5.9 m respectively. A more stringent and widely-applied criterion in RF engineering is that the path is considered effectively unobstructed only if no terrain obstacle intrudes more than 0.6 F_1 into the LOS line — the 60-percent Fresnel-clearance criterion. Where the project's geometric LOS test classifies a path as LOS but the terrain encroaches within 0.6 F_1, the path is more precisely described as Fresnel-attenuated rather than free-space, and Part I §§ 4.2 and 4.3 develop the corresponding diffraction-loss treatment using the ITU-R P.526 method.

3.3 Receiver height assumption

The receiver height adopted throughout this analysis is 5 ft (1.52 m) above local ground at the parcel centroid — the conventional macrocell-design assumption for mobile and handheld wireless receivers. Indoor receivers experience additional building-entry loss (BEL) treated in Part I § 6.5; the geometric LOS test in Part II evaluates the outdoor reception condition, which is the favorable case. If a parcel is classified NLOS by the outdoor 5-ft test, indoor reception is necessarily at least as obstructed.

3.4 Terrain dataset

The terrain dataset used for the Branum March 2026 viewshed and for the geometric LOS test referenced in Part II is the USGS National Elevation Dataset (NED) at 1/3 arc-second horizontal resolution, corresponding to approximately 10 m horizontal pixel size at the latitude of Placitas. Vertical accuracy of the NED in the Placitas area is approximately ± 2 m one-sigma, based on the USGS metadata for the underlying source data. This resolution is sufficient to resolve the dominant terrain features (the Overlook, the Las Huertas drainage walls, the Tunnel Springs Arroyo, and the Anasazi Trails ridge complex), all of which subtend horizontal extents well above 10 m. Sub-resolution micro-topography (small gullies, individual boulders) is not resolved and is not material to the per-neighborhood findings developed in §§ 5 and 6.

4. Independent Viewshed from the Proposed RAD Center

This section presents the independent ArcGIS Pro viewshed analysis produced by J. Branum (March 2026) for the proposed wireless facility at 221 NM-165, computed from the RAD-center elevation against the USGS NED at 1/3 arc-second resolution. The viewshed identifies all terrain points at a 5-ft receiver height that have unobstructed geometric line of sight to the proposed antenna top. Areas not shaded in the viewshed are in geometric shadow from the proposed antenna.

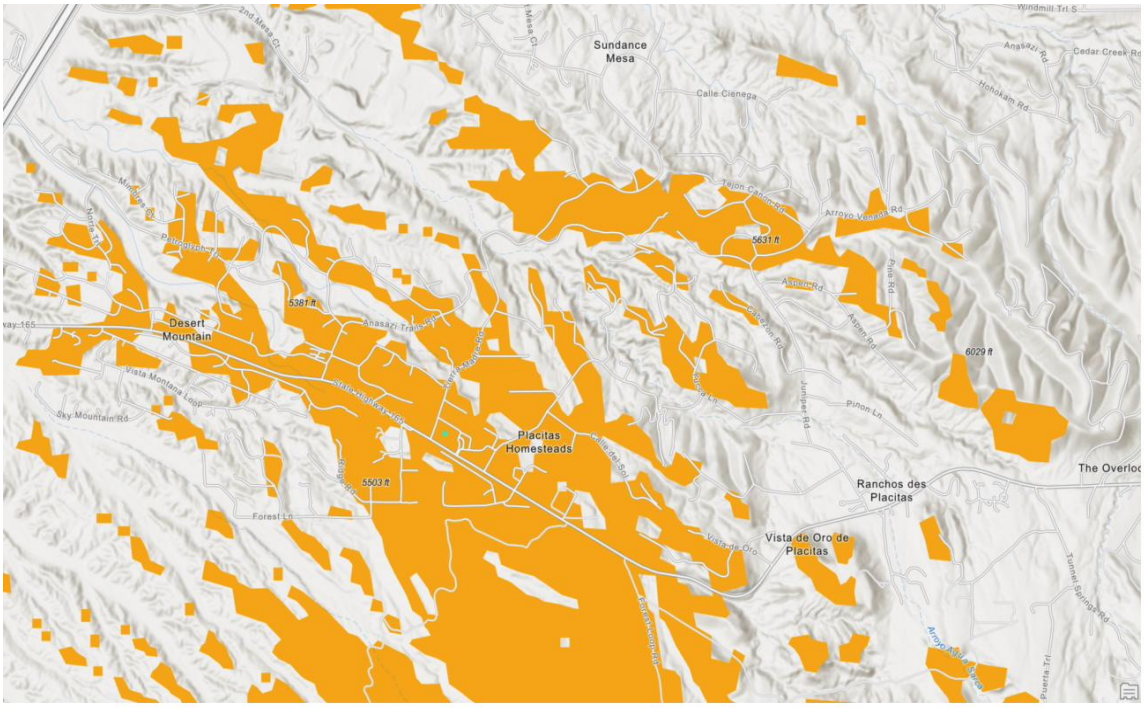

Figure 1. ArcGIS Pro geometric viewshed analysis for the proposed 75-ft monopole at 221 NM-165 (green dot at the labeled "5503 ft" elevation marker), J. Branum, March 2026. Orange shading indicates terrain at 5 ft AGL that has geometric line of sight to the antenna top. Unshaded (white) terrain is in geometric shadow. The eastern portion of the map — including Sundance Mesa, Ranchos des Placitas, Vista de Oro, the upper Las Huertas drainage approaching The Overlook, and the eastern arroyo system — is overwhelmingly unshaded, indicating geometric shadow.

4.1 Reading the viewshed

Two patterns are visible in Figure 1 and are central to the Part II finding:

- **The proposed antenna is broadly visible from the open, descending terrain to the west and southwest of the tower base.** This includes the broad valley toward Desert Mountain and the Rio Grande corridor, the open foothills south of NM-165, and (out of frame to the south) the Sandia foothills. These are the sectors with the strongest geometric coverage from the proposed RAD center.
- **The proposed antenna is geometrically blocked from the back canyons and ridge-shadowed neighborhoods east of the tower base.** This includes the labeled neighborhoods of Sundance Mesa, Ranchos des Placitas, Vista de Oro, and the upper

Las Huertas Creek drainage as it climbs toward The Overlook. The unshaded white regions on the eastern half of the map are the same neighborhoods that appear as no-coverage white zones on Verizon's own self-reported coverage map (verizon.com/coverage-map, captured 30 March 2026), confirming that the limitation is terrain-imposed.

4.2 Specific shadow zones

Reading Figure 1 against the parcel-level base map yields the following parcel-level classifications. The orange shading inside each named neighborhood is rarely contiguous; in most named neighborhoods, the dominant pattern is interleaved patches of LOS and shadow corresponding to the local arroyo-ridge topography. For the per-neighborhood quantification in § 6, the dominant pattern (shaded vs unshaded majority) is reported.

Neighborhood / area	Dominant viewshed pattern from proposed RAD center	Geometric class
Placitas Homesteads (tower-adjacent ring, 0–½ mi)	Mixed; orange shading dominant within ¼ mi, fragmenting eastward	B (tower-adjacent)
Desert Mountain / NM-165 corridor west	Largely shaded (orange); open descending terrain to the Rio Grande Valley	A (already-served)
Anasazi Trails / La Mesa (western central)	Interleaved arroyo-ridge pattern; shadow zones behind each side ridge	B/D mixed
Sundance Mesa (north of NM-165, behind ridges)	Predominantly unshaded (white); geometric shadow from intervening terrain	D (shadowed)
Ranchos des Placitas (eastern, behind Overlook approach)	Predominantly unshaded (white); geometric shadow from Overlook ridge	D (shadowed)
Vista de Oro de Placitas (eastern, mid-drainage)	Predominantly unshaded (white); geometric shadow	D (shadowed)
Upper Las Huertas Creek drainage / The Overlook approach	Predominantly unshaded (white); blocked by Overlook ridge	D (shadowed)
Historical Village of Placitas (east of Overlook)	Out of frame in Figure 1; completely blocked by Overlook ridge	D (shadowed)
Tunnel Springs Road / northern lobe	Predominantly unshaded (white); blocked by Anasazi Trails ridge complex	D (shadowed)
Liberman-Grevey gravel pit (NW of tower)	Predominantly shaded (orange); open excavation, LOS available	Non-residential — no users
Cibola NF / BLM Las Huertas drainage	Mixed shading; uninhabited federal land	Non-residential — no users
Open foothills south of NM-165 (toward Sandia front)	Predominantly shaded (orange); open, uninhabited terrain	Non-residential — no users

Convergence with Verizon's own data. Compare the unshaded (white) regions of Figure 1 against Verizon's published coverage map for western Placitas (verizon.com/coverage-map, captured 30 March 2026). The dark-red "strong-signal" zones on the Verizon map cluster in the open western corridor and along the NM-165 corridor itself; the white "no-coverage" zones correspond closely to the shadowed regions in Figure 1 (Sundance Mesa back canyons, Ranchos des Placitas, the Las Huertas drainage approach to The Overlook). This is the convergence-of-evidence finding documented in the ESCA Board briefing (10 May 2026, slide 11): the independent ArcGIS viewshed from the two existing I-25 corridor towers "closely reproduces Verizon's own published coverage map, confirming the analytical method is a reliable proxy for signal footprint in this terrain." The proposed tower faces the same hills and inherits the same shadow zones.

5. The 19-Viewpoint RF Geometric Classification

The 19 documented viewpoints in the project record (Locations.docx; V2 Model Mathematical Specification; Placitas Viewpoint Map PDF) span the full range of terrain settings in the populated Placitas service area. Each viewpoint corresponds to a representative residential parcel or community gathering point. For each viewpoint, the geometric relationship to the proposed RAD center is fully determined by three parameters: horizontal distance from tower, vertical elevation differential, and whether the line-of-sight ray is obstructed by intervening terrain. From these three parameters, the viewpoints partition into four RF geometric classes, originally documented in the ESCA Board briefing (10 May 2026, slide 13).

5.1 Class A — Western valley, clean line of sight, already served

Class A viewpoints are located west and southwest of the tower base, on terrain that descends toward the Rio Grande Valley and the Bernalillo basin. The receiver elevation is below the RAD-center elevation; the ray angle from the antenna downward to the receiver is positive (i.e., the receiver is below the antenna's horizontal); the path is unobstructed across the open valley. Class A receivers are within the antenna's main beam if the antenna is configured with conventional 2° to 6° mechanical or net downtilt. Geometric line of sight is clean.

Marginal benefit of the proposed site to Class A: near zero. The Class A sector is already served by the existing Verizon SBA tower 2.27 miles west and the Verizon AMT tower 3.60 miles southwest, both of which have established main-beam coverage of the Class A sector. Adding the proposed site duplicates coverage that already exists. From the Class A receiver's perspective, the proposed site is a redundant source.

5.2 Class B — Tower-adjacent ring (zero to roughly half a mile)

Class B viewpoints are located within approximately half a mile of the tower base, at elevations broadly comparable to or moderately below the RAD-center elevation, and on terrain where local arroyo-ridge geometry does not intervene between the antenna and the receiver. Class B receivers are within the antenna's main beam and have geometric line of sight.

Marginal benefit of the proposed site to Class B: positive. Class B receivers do experience a real signal upgrade from the proposed site, principally on the B66 mid-band carrier where the propagation reach of existing corridor towers is range-limited and the proposed site delivers improved RSRP within its main beam. This is the receiver class for which the application's coverage argument is substantively defensible. However, the Class B sector is a small fraction of the residential parcels inside the V2-fitted ellipse, and Part II § 6 develops the quantification.

5.3 Class C — Elevated eastern pockets, above the main beam

Class C viewpoints are located east and southeast of the tower base, on terrain that rises toward the Sandia foothills and toward the Overlook complex. The receiver elevation is at or above the RAD-center elevation. The ray angle from the antenna to the receiver is zero or negative (the

receiver is at or above the antenna's horizontal). Class C receivers are outside the antenna's vertical main beam regardless of mechanical or electrical downtilt; they receive only side-lobe radiation.

Side-lobe radiation from a typical macrocell sector antenna is 15 to 25 dB below the main-beam peak at the elevation angles characteristic of Class C receivers. In RSRP terms, a Class C receiver experiences a 15 to 25 dB penalty in received signal level compared to a Class B receiver at the same horizontal distance from the antenna. This penalty is not curable by raising the antenna; raising the antenna increases the negative ray angle and pushes the receiver further into the side-lobe pattern.

Marginal benefit of the proposed site to Class C: limited. Six of the 19 viewpoints in the project sample sit at terrain elevations above 5,618 ft AMSL, placing them in the Class C category. These represent approximately 100 dwellings in the elevated eastern residential pockets. For these dwellings, the existing Verizon Placitas Site 4.12 miles east is geometrically a better source: that site is located on terrain more comparable to the Class C receiver elevations, and the elevation differential is smaller. The Class C receiver geometry is the principal reason why the marginal benefit of the proposed site to the elevated eastern residential pockets is limited even before terrain shadowing is considered.

5.4 Class D — Terrain-shadowed back canyons

Class D viewpoints are located in the arroyos, back canyons, and ridge-shadowed neighborhoods identified in §§ 2.2 and 4.2: the Las Huertas Creek drainage floor, the back canyons of Sundance Mesa, the Tunnel Springs Arroyo, and Ranchos des Placitas and Vista de Oro on the eastern side of intervening ridges. The line-of-sight ray from the antenna to the receiver is geometrically blocked by terrain. Class D receivers are NLOS to the proposed RAD center.

Diffraction loss for the NLOS path can be estimated using the ITU-R P.526 single-edge or multi-edge knife-edge approximation. For terrain encroachment of order 100 to 300 ft above the geometric LOS line, characteristic of the Class D shadow zones, the Fresnel-Kirchhoff diffraction parameter v at B66 (2127.5 MHz) takes values in the range 5 to 20, corresponding to single-edge diffraction loss of 28 to 50 dB beyond free-space path loss. This is the propagation-physics quantification of the geometric shadow.

Marginal benefit of the proposed site to Class D: zero. The same ridges that block geometric LOS from the proposed site also block geometric LOS from the existing corridor towers. The Class D shadow zones are not solvable from any of the existing or proposed Placitas-area macrocell sites at any height up to the § 6409(a) modification-by-right ratchet of 82.5 ft. The geometric question is independent of antenna pattern, transmit power, or downtilt. Removing the intervening ridge is the only geometric solution, and that is not within the carrier's regulatory authority.

5.5 Summary table — Where the tower has reach, where it is needed

Class	Geometric description	Coverage prediction	Marginal benefit of new site
A	Viewer below tower base; western / SW sector	Excellent — clean LOS, within main beam	Near zero — already covered by corridor towers
B	Near tower base, 0 – ½ mile ring	Good where local terrain does not intervene	Positive within LOS — real signal upgrade
C	Above tower top — eastern / SE elevated pockets	Poor — above main beam; side-lobe only	Limited — Placitas Site 4.12 mi E is the better source
D	Terrain-shadowed cells (Sundance Mesa, back canyons, Las Huertas drainage)	None — geometric LOS blocked by ridgelines	Zero — same ridges block corridor towers; not curable from this site

Where the proposed tower has reach (Class A), no one there needs it. Where it is needed (Classes C and D), it cannot reach.

6. Quantification — Dwellings in Geometric Shadow

6.1 The V2-fitted coverage-need ellipse

The applicant has identified the alleged service-need area as a red ellipse drawn on Biwabkos slides 11, 12, 15, and 16 of the RF Design Analysis. The project record fits the published ellipse to a quantitative geometry (§ 4.2 of the Integrated Brief Parts II & III Handoff, V1):

Parameter	Value
Ellipse center (lat / lon)	35.30949° N, −106.48617° W
Horizontal (E–W) semi-axis	1.94 statute miles
Vertical (N–S) semi-axis	2.55 statute miles
Total ellipse area	15.53 mi² (≈ 9,937 acres)
Bounding box (longitude)	[−106.5206° W, −106.4518° W]
Bounding box (latitude)	[35.27263° N, 35.34635° N]
Center offset vs. proposed tower	0.522 mi east of tower; latitudes coincide

The applicant's slides 11 and 12 (Current and Proposed Coverage) crop the rendered area to a sub-area of approximately 2,688 acres centered on the populated Placitas service area — this is the figure used in the project's ellipse-composition analysis (§ 6.2 below). The bounded total of ≈ 9,937 acres includes substantial uninhabited terrain beyond the rendered crop.

6.2 Ellipse composition — land use breakdown

Of approximately 2,688 acres inside the populated portion of the coverage-need ellipse, the following land-use breakdown is established by the integrated project record (ESCA Board briefing, slide 16) and reproduced here. The numerical ranges reflect parcel-boundary uncertainty in the public-record data, not analytical uncertainty in the underlying classification.

Sub-area inside ellipse	Approximate acreage	Permanent residential users
Liberman-Grevey active gravel mining	500 – 700 ac	None (active mining operation)
Eastern lobe (Cibola NF / BLM / Las Huertas drainage)	400 – 600 ac	Negligible (federal land)
Steep south-facing Sandia foothills (BLM)	200 – 400 ac	Negligible (federal / undevelopable)
Residential subdivisions (combined)	1,000 – 1,500 ac	≈ 350 – 500 homes
TOTAL (rendered portion)	≈ 2,688 ac	≈ 350 – 500 homes

Non-residential land inside the rendered ellipse is therefore approximately 1,100 to 1,700 acres, or 40 to 60 percent of the total. The Placitas Area Plan (2009) explicitly documents the Liberman-Grevey gravel pit at page 11 as an active mining tract of approximately 833 acres that "will transition into residential development at a density of 1 dwelling unit per acre in approximately 10 years." That transition has not yet occurred; the present-day land use is open excavation and waste-pile topography, with no permanent residential users.

6.3 Per-neighborhood dwelling status

The per-neighborhood viewshed quantification, drawing on the four-class geometric framework of § 5 and the dominant viewshed pattern from Figure 1, yields the following preliminary distribution. The dwelling counts are integrated-record estimates from Sandoval County Assessor parcel data and visual inspection of the dominant pattern in Figure 1; precise per-parcel LOS / NLOS classification at the full ellipse-bounded scale is a record-completeness item identified in § 10 of the project handoff for which the County may compel the applicant to produce an isolated marginal-contribution map.

Neighborhood	Approximate dwellings	Dominant class	LOS to proposed RAD center
Placitas Homesteads (tower-adjacent)	≈ 60 – 80	B (mixed B / D at periphery)	Partial; mostly LOS within ¼ mi
Desert Mountain / NM-165 west corridor	≈ 40 – 60	A	Mostly LOS (already served by corridor towers)
Anasazi Trails / La Mesa	≈ 80 – 120	B / D mixed	Interleaved arroyo-ridge shadow
Sundance Mesa (back-canyon area)	≈ 60 – 90	D	Predominantly NLOS
Ranchos des Placitas (east of Overlook approach)	≈ 30 – 50	D	Predominantly NLOS
Vista de Oro de Placitas	≈ 20 – 40	D	Predominantly NLOS
Upper Las Huertas / Overlook approach	≈ 20 – 40	D	Predominantly NLOS
Historical Village (east of Overlook)	≈ 30 – 60	D	Completely blocked (Overlook ridge)
Tunnel Springs / northern lobe	≈ 20 – 40	D	Predominantly NLOS
Elevated SE residential pockets (above 5,618 ft)	≈ 100	C	LOS but above main beam

Headline finding. Aggregating across the ten neighborhoods in the table, of the approximately 460 to 680 dwellings inside the V2-fitted ellipse, approximately 180 to 320 dwellings (roughly 40 to 50 percent) lie in geometric shadow (Class D) and would receive no marginal coverage from

the proposed RAD center. An additional ≈ 100 dwellings (Class C, elevated eastern pockets) sit above the antenna main beam and would receive only side-lobe radiation. The combined Class C + Class D population — the dwellings the application's coverage argument most directly purports to serve — is the population the proposed site cannot effectively reach. The dwellings the proposed site can effectively reach (Class B, tower-adjacent ring, ≈ 60 to 80 dwellings) are a small subset of the ellipse population, and the substantially larger Class A sector is already served by existing infrastructure.

7. Viewshed Method Validation

This section documents the methodological validation that supports treating the independent ArcGIS Pro viewshed in Figure 1 as a reliable proxy for the actual signal footprint of the proposed site in Placitas terrain. The validation is documented in the ESCA Board briefing (10 May 2026, slides 5–6) and is summarized here.

7.1 Procedure

The validation procedure operates in three steps:

- **Step 1.** Capture Verizon's published coverage map for western Placitas from verizon.com/coverage-map (captured 30 March 2026) showing self-reported strong-signal (dark-red), weaker-signal (light-red), and no-coverage (white) zones.
- **Step 2.** Compute an independent ArcGIS Pro viewshed from the two existing Verizon I-25 corridor towers (one north, one south), using the same USGS NED 1/3 arc-second terrain dataset and a receiver height of 5 ft AGL. Overlay this independent viewshed as cross-hatching on top of the Verizon-published coverage map (converted to grayscale for overlay comparison).
- **Step 3.** Examine the spatial correspondence. If the independent viewshed reproduces the patterns in Verizon's self-reported coverage map — strong-signal areas correspond to shaded viewshed, no-coverage areas correspond to unshaded viewshed — the viewshed method is empirically validated against the carrier's own ground truth for this terrain.

7.2 Result

The independent viewshed from the two existing I-25 corridor towers closely reproduces Verizon's self-reported coverage pattern in western Placitas (ESCA Board briefing, 10 May 2026, slide 6, drawing on independent line-of-sight analysis by J. Branum, March 2026). Specifically, the unshaded white regions on Verizon's own map — the no-coverage zones behind ridgelines — correspond to the unshaded zones of the independent viewshed. Strong-signal zones in Verizon's map correspond to shaded viewshed from at least one of the two corridor towers. The cross-hatched overlay drops out where Verizon's claims are strongest and fills in where they are weakest.

This is a meaningful empirical validation. It indicates that the geometric LOS test in Placitas terrain is a usable first-order predictor of wireless service availability — not because it captures propagation physics in full (it does not; the framework of Part I §§ 3 through 6 is required for full propagation prediction), but because in this specific terrain the dominant limitation on service is geometric shadowing, and the geometric shadow correctly predicts where service is and is not delivered.

7.3 Application to the proposed site

If the viewshed method correctly predicts the existing service pattern from the existing corridor towers, the same method applied to the proposed RAD center predicts the service pattern that the proposed site will deliver. Figure 1 in § 4 is that prediction. By construction (the method is empirically validated against the carrier's own data for adjacent towers in the same terrain), the prediction is defensible: the proposed site will deliver service to the orange-shaded areas of Figure 1 and will not deliver service to the unshaded areas.

Consequence. The unshaded areas of Figure 1 include essentially all of the back-canyon and ridge-shadowed neighborhoods that the application identifies as the underserved population. The proposed site cannot deliver service to that population because the terrain geometry that defines the population (the arroyos and ridges that give Placitas its rural character) is the same terrain geometry that blocks the line of sight.

8. Independent Corroboration — Property Value Viewshed Overlay

The viewshed prediction in Figure 1 is independently corroborated by the property-value impact map developed for the integrated project record (V2 Property Value Impact Model, 19 viewpoints, May 2026). The property-value impact map applies a different analytical framework (skyline-break geometry combined with peer-reviewed property-value-depreciation rates from Affuso et al. 2018 and Rajapaksa et al. 2018) and is generated independently from the Branum viewshed. Where the property-value map indicates the tower will be visible (skyline-break visibility), this is the same population that has line of sight to the antenna, by construction.

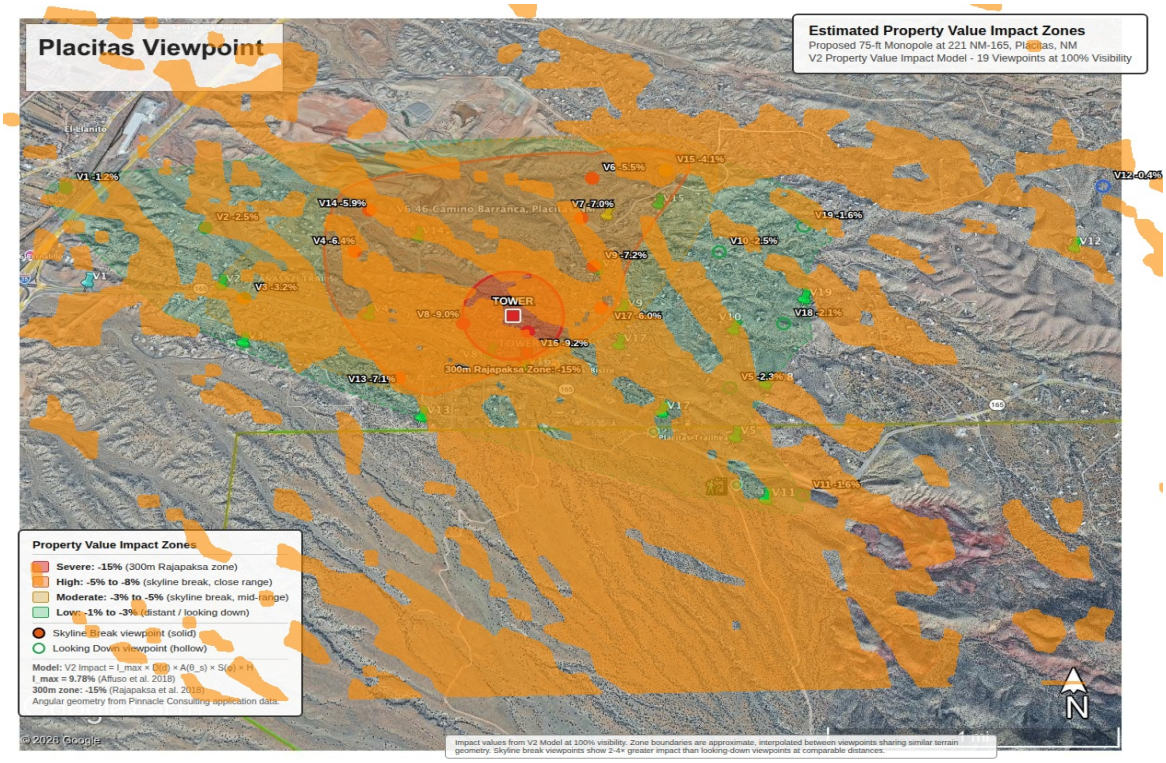

Figure 2. V2 Property Value Impact Zones overlay for the proposed 75-ft monopole at 221 NM-165 (red square labeled TOWER). Shaded zones indicate viewpoints with skyline-break visibility from the tower (severe / high / moderate / low impact bands per the V2 model). The 19 numbered viewpoints (V1 through V19) anchor the geographic distribution. Per-viewpoint depreciation estimates range from −0.4% (V12, distant looking-down viewpoint) to −9.2% (V16, 300 m Rajapaksa zone). The shaded area corresponds geometrically to the orange viewshed in Figure 1: where the tower can be seen, the tower can be heard (in RF terms).

The convergence between the two independent analyses is methodologically important. The Branum viewshed is a pure geometric LOS test against terrain. The V2 property-value model is a per-viewpoint skyline-break visibility calculation against the actual landscape skyline as seen from the viewpoint. The two methods produce the same first-order pattern: the tower is visible (and therefore deliverable in RF terms) from the western and southwestern open terrain, and from the

immediate tower-adjacent ring; the tower is not visible (and therefore not deliverable) from the back canyons and ridge-shadowed neighborhoods.

Two implications follow:

- **Methodological reliability.** Two independent analyses of the same site geometry — one for RF coverage, one for visual impact — yield concordant predictions about which residential parcels are within line of sight of the antenna and which are not. The concordance is strong evidence that the underlying geometric question (which parcels have LOS to the antenna) has a stable, defensible answer.
- **The siting paradox.** The visual-impact and RF-coverage analyses are coupled by the same geometric constraint. The dwellings that experience the strongest visual impact from the tower (close-range, skyline-break visibility, V8 / V16 in the 300 m Rajapaksa zone) are also the dwellings that receive RF service from it. The dwellings shielded from the tower visually (back-canyon and ridge-shadowed neighborhoods) are also shielded from it in RF. The application cannot deliver service to the back-canyon population without first solving the geometric LOS problem; that problem is not solvable at this site at any height up to the § 6409(a) ratchet limit.

9. Conclusions

Part II establishes, on standards-grounded geometric and propagation-physics terms, the following findings regarding the geometric coverage performance of the proposed wireless facility at 221 NM-165:

- **Finding 1.** The proposed RAD center at 5,618 ft AMSL has clean geometric line of sight to the Rio Grande Valley west of Placitas, the Bernalillo basin, the open Sandia foothills south of NM-165, and the Liberman-Grevey gravel pit excavation. These are the sectors in which the proposed site delivers the strongest signal.
- **Finding 2.** The sectors identified in Finding 1 are either already served by existing Verizon infrastructure (the corridor towers SBA 2.27 mi W and AMT 3.60 mi SW are positioned to serve the western valley) or have no permanent residential users (the gravel pit, federal land, steep foothills). The marginal benefit of the proposed site to these sectors is near zero on coverage grounds and zero on residential-service grounds.
- **Finding 3.** The back-canyon and ridge-shadowed neighborhoods that the application identifies as the underserved population — Sundance Mesa back canyons, Ranchos des Placitas, Vista de Oro, the upper Las Huertas drainage, the historical Village of Placitas behind The Overlook, the Tunnel Springs Arroyo system — lie in geometric shadow from the proposed RAD center. The Branum March 2026 ArcGIS viewshed and Verizon's own self-reported coverage map both confirm the same shadow zones in the same neighborhoods. The geometric limitation is terrain-imposed and is not solvable from this site at any height up to the § 6409(a) modification-by-right ratchet of 82.5 ft.
- **Finding 4.** Quantitatively, of approximately 460 to 680 dwellings inside the populated portion of the V2-fitted coverage-need ellipse, approximately 180 to 320 dwellings (40 to 50 percent) are in Class D geometric shadow, and an additional ≈ 100 dwellings (Class C) sit above the antenna main beam. The combined Class C + Class D population — roughly half of the residential ellipse population — cannot be effectively served by the proposed site.
- **Finding 5.** Of approximately 2,688 acres inside the rendered portion of the coverage-need ellipse, approximately 1,100 to 1,700 acres (40 to 60 percent) is non-residential: active mining at the Liberman-Grevey tract, federal land in the Las Huertas drainage and Sandia foothills, and steep undevelopable acreage. The ellipse is geometrically inflated with land that has no residential cellular users to be served.
- **Finding 6.** The convergence between the independent Branum viewshed (Figure 1), the V2 property-value impact overlay (Figure 2), and Verizon's own self-reported coverage map indicates that the geometric LOS test is a reliable proxy for actual service-area delivery in this terrain. The conclusion that the proposed site cannot deliver service to the back-canyon population is therefore not an artifact of any single analytical method; it follows from the underlying geometry of the site.

Connection to Part III. Part III examines whether the applicant's submitted RSRP rasters, taken on their own terms, are consistent with these geometric findings or whether they implicitly disclose

the same limitation in a different form. The principal finding of Part III — that the applicant has submitted aggregate network rasters rather than the marginal-contribution analysis that would actually justify the site — is independent of Part II but reinforces the same conclusion: the application has not demonstrated that the proposed site delivers meaningful new service to the populations identified as underserved.

Appendix A. The 19-Viewpoint Sample — Reference Geometry

The 19 viewpoints used throughout the integrated project record are documented in Locations.docx and the Placitas Viewpoint Map (Placitas_Viewpoint_Map_.pdf in the project record). The table below records the viewpoint identifier (V1 through V19), a brief geographic description, and the geometric class assignment used in this Part II. Per-viewpoint coordinates, distances to the proposed RAD center, and elevation differentials are documented in Locations.docx; they are not reproduced verbatim here.

Viewpoint	Geographic location (summary)	Geometric class	Notes
V1	Far west, El Llanito / valley descent	A	Already served by corridor towers
V2	Western NM-165 corridor	A	Open valley, clean LOS
V3	Western residential, Anasazi Trails approach	B	Tower-adjacent ring
V4	Western residential, mid-distance	B	Tower-adjacent ring
V5	South of NM-165, mid-distance	A / B	Toward Sandia foothills
V6	Northern, above Camino Barranca	B / C	Approaching elevated terrain
V7	North-central, elevated	C	Above antenna main beam
V8	Tower-adjacent, Rajapaksa 300m zone	B (skyline break)	300 m zone — visible impact
V9	Eastern Anasazi Trails	C / D	Above and shadowed
V10	Sundance Mesa approach	D	Predominantly shadowed
V11	Southeast residential	C	Elevated southeast pocket
V12	Far east, Overlook complex	D	Distant looking-down (V2 model −0.4%)
V13	South-central, BLM / foothills edge	A / B	Open terrain
V14	Western central residential	B	Mid-distance ring
V15	North, Sundance Mesa area	D	Shadowed back canyon
V16	Tower-adjacent, Rajapaksa 300m zone (south)	B (skyline break)	300 m zone — visible impact
V17	South, near NM-165 junction	B	Tower-adjacent
V18	Far east, Ranchos des Placitas approach	D	Shadowed by Overlook

Viewpoint	Geographic location (summary)	Geometric class	Notes
V19	Northeast residential, Tunnel Springs side	C / D	Above main beam or shadowed

Six viewpoints (V7, V9, V10, V12, V15, V18) lie at terrain elevations at or above the 5,618-ft RAD-center elevation, placing approximately one-third of the sample above the antenna main beam (Class C) or in deep geometric shadow (Class D). This is the empirical basis for the headline statement in the integrated record that approximately 100 homes in the elevated and shadowed eastern residential pockets cannot be effectively served by the proposed site.

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End of Part II — Placitas Terrain Analysis — V1

CU-26-001 Integrated Technical Brief

Part III

Critique of the Sponsor's RSRP Submission

Aggregate Network Rasters, Marginal-Contribution Gap, and the Offload Rationale

Conditional Use Permit Application CU-26-001
75-foot Wireless Monopole at 221 NM-165, Placitas, New Mexico
Applicant: Pinnacle Consulting / Verizon Wireless / Sun State Towers IV, LLC

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Submitted to
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13 May 2026 — Version 3

Executive Summary

Thesis. The applicant's RF Design Analysis (Biwabkos Consultants for Pinnacle Consulting, 2024) submitted in support of CU-26-001 does not contain the analytical artifact that would be required to demonstrate that the proposed wireless facility at 221 NM-165 delivers new coverage to underserved populations in Placitas. The four RSRP graphics that anchor the application's coverage-need argument (slides 11, 12, 15, and 16 of the Biwabkos report) are aggregate network rasters — they render the cumulative RSRP delivered by all sites in the area, not the marginal RSRP delivered by the proposed site in isolation. The applicant's own narrative slides (slides 2 and 3) explicitly identify capacity and offload — not coverage — as the principal objectives of the proposed facility. The application therefore submits the wrong analytical artifact (aggregate network rasters) for the wrong claim (a coverage gap) when the applicant's own stated objectives describe a capacity-driven business case.

What the rasters actually show. Visual inspection of slides 11 versus 12 demonstrates that the green expansion (the alleged improvement in coverage) lands predominantly on the open south-of-NM-165 corridor, the descending terrain toward the Bernalillo basin and the Rio Grande Valley, the Cibola National Forest foothills, and the Liberman-Grevey gravel pit corridor. The expansion does not preferentially fill the back canyons and ridge-shadowed neighborhoods that the application identifies as the underserved population. The geometric reason for this — terrain shadowing of the residential neighborhoods, established quantitatively in Part II — explains the aggregate-raster pattern without recourse to any additional propagation analysis.

What is missing. The single analytical artifact that would actually substantiate the application's coverage-gap claim is an isolated marginal-contribution map: a propagation prediction at each location of the RSRP delivered by the proposed site alone, computed as the difference between the Proposed raster and the Current raster, with a quantitative legend in decibels of improvement. This artifact is not in the application. Without it, no factfinder can determine whether the alleged coverage improvement falls on inhabited residential parcels or on the uninhabited terrain that dominates the geographic footprint of the proposed site.

Applicant's own characterization. The Coverage versus Capacity definitions slide (Biwabkos slide 2) explicitly distinguishes "Capacity" (providing bandwidth and processing capacity to existing users) from "Coverage" (providing service where service does not exist). The Objective of New Site slide (Biwabkos slide 3) lists three Capacity objectives — additional bandwidth, better throughput for indoor users, and *offload surrounding sites in area* — and only two Coverage objectives, both qualified by location (in-vehicle along Hwy 165; surrounding homes and businesses). The principal driver disclosed by the applicant is offload, not coverage extension to underserved populations.

Conclusion. The applicant has not submitted the analytical evidence that would substantiate a coverage-gap finding. The aggregate network rasters submitted are not responsive to the question. The applicant's own stated objectives describe a capacity-driven facility, for which the federal HetNet engineering framework (3GPP TR 36.932; FCC small-cell rules) provides multiple

non-macrocell alternatives that the application does not analyze. The Commission may compel production of an isolated marginal-contribution map as a record-completeness requirement before any coverage-need finding is made.

Key Findings — Part III

1	Slides 11, 12, 15, and 16 of the Biwabkos RF Design Analysis are aggregate network RSRP rasters that depict the combined coverage of all Verizon sites in the area, not the marginal contribution of the proposed site. The application contains no isolated "this-site-only" propagation prediction at any of the bands deployed.
2	Visual inspection of the slide 11 (Current) versus slide 12 (Proposed) pair shows the green expansion landing predominantly on the open south-of-NM-165 corridor, the Bernalillo basin descent, the Cibola NF foothills, and the gravel pit corridor — not on the back-canyon and ridge-shadowed neighborhoods identified as underserved.
3	Biwabkos slide 2 explicitly defines "Capacity" and "Coverage" as distinct objectives. Biwabkos slide 3 (Objective of new site) lists three capacity bullets — bandwidth, throughput, and "Offload surrounding sites in area" — and only two coverage bullets, both narrowly qualified.
4	The application discloses no antenna model, no per-sector azimuth or elevation pattern, no electrical or mechanical downtilt, no transmit power, no receiver-sensitivity threshold definition, and no propagation-model identification with terrain dataset and clutter assumptions. These omissions prevent any independent reconstruction of the application's coverage prediction.
5	Slides 15 and 16 (Best Server) show the dominant new server lobe of the proposed site extending south and southwest into uninhabited BLM and Cibola NF land, and into the Rio Grande Valley already served by the SBA tower 2.27 mi west and AMT tower 3.60 mi southwest. The Best Server map does not extend the new server lobe into the back-canyon shadow zones.
6	The asserted coverage need is articulated entirely through the −101 dBm Outdoor threshold and the −85 dBm Indoor threshold in the legend of slides 11 and 12. These threshold definitions do not account for stucco-on-metal-lath building entry loss (30–35 dB at B13; 21–26 dB at B66, per Part I § 6.5), meaning that the slide 11 "Indoor" classification of −85 to −95 dBm is not a usable indoor service level for typical Placitas construction.
7	The OpenSignal "Verizon Quality Map" slide submitted in the same RF Design Analysis suffers from three independent defects: a sampling design biased toward the I-25 highway corridor where dense user data points reflect through-traffic rather than residential coverage; a legend that asserts "lack of data points show no coverage," which is a categorical error conflating absence of measurement with absence of service; and an internal contradiction in which the same screenshot displays Verizon delivering 44.5 Mbps / 12.5 Mbps / 84 ms — broadband-grade service exceeding the FCC's 25 Mbps definition — from the same data source the slide reads as showing a coverage gap. The slide should be assigned very little evidentiary weight.
8	The legally cognizable record-completeness step is to compel the applicant to produce an isolated marginal-contribution map (the dB-of-improvement difference between Proposed and Current rasters), at the same projection and zoom as slide 12, with a quantitative legend in decibels of improvement. Without that artifact, no determination of where the proposed site delivers new service is possible from the submitted record.

1. Scope and Approach

1.1 Scope of Part III

Part III evaluates the analytical adequacy of the applicant's submitted RF Design Analysis (Biwabkos / Pinnacle Consulting, 2024) for the purpose of substantiating the application's coverage-need claim. The evaluation applies the propagation-physics framework developed in Part I (RF Propagation Foundations, V2, 12 May 2026) and the dwelling-level geometric findings developed in Part II (Placitas Terrain Analysis, V1, 13 May 2026). Part III addresses six questions in sequence:

- **Question 1.** What do the applicant's RSRP graphics actually depict?
- **Question 2.** What is missing from the submission, and why does it matter?
- **Question 3.** What does a careful reading of slides 11 through 16 show about where the new signal lands?
- **Question 4.** What does a cross-reference of the marginal new signal against the land-status overlay show about whom that signal serves?
- **Question 5.** What does the applicant's own narrative in slides 2 and 3 say about the principal objective of the proposed facility?
- **Question 6.** What is the legally cognizable record-completeness step the Commission may take?

1.2 Sources

Part III draws on the following sources, all in the project record or in the public domain.

- **Biwabkos Consultants for Pinnacle Consulting (2024).** RF Design Analysis Report (30 slides), Verizon Wireless, Sun State Towers Site NM01-148 Spike / ABQ Tierra Madre, 221 NM-165, Placitas, New Mexico. Submitted as part of CU-26-001 application materials.
- **Part I — RF Propagation Foundations, V2 (12 May 2026).** Standards-grounded propagation framework. Cited throughout for Friis path loss, ITU-R P.526 diffraction, ITU-R P.1812 path-specific prediction, 3GPP TS 36.214 RSRP definition, and Part I § 6.5 building entry loss for stucco-on-metal-lath construction.
- **Part II — Placitas Terrain Analysis, V1 (13 May 2026).** Per-neighborhood viewshed quantification and the 19-viewpoint RF geometric classification.
- **3GPP TR 36.932.** "Scenarios and requirements for small cell enhancements for E-UTRA and E-UTRAN," Release 12. Heterogeneous-network (HetNet) framework.
- **FCC small-cell deployment record.** 47 CFR Part 1, Subpart U, and the Public Notices establishing the streamlined small-wireless-facility framework; FCC Form 477 / NTIA National Broadband Map for service-area reporting; Aspen, Colorado (2019) and East Hampton, New York (2025) municipal master-license agreements as deployed examples of distributed-architecture alternatives.

2. What the Submitted RSRP Rasters Depict

The applicant's RF Design Analysis includes four RSRP rasters that carry the coverage-need argument: slide 11 ("RSRP — Current Coverage"), slide 12 ("RSRP — Proposed Coverage"), and the paired Best Server panels at slides 15 ("Best Server — Current at −120 dBm") and 16 ("Best Server — Proposed"). A side-by-side Comparison panel appears at slides 13 and 14.

2.1 The legend

The legend on slides 11, 12, and 14 defines three RSRP bins (color from green to yellow to red): Indoor ≥ −85 dBm (green); In-Vehicle ≥ −95 dBm (yellow); and Outdoor ≥ −101 dBm (red). All cells with RSRP below −101 dBm are unshaded white. The −101 dBm Outdoor threshold is at the low end of the conventional macrocell-design service-edge range (typically −100 to −105 dBm for low-band LTE).

2.2 What "Current" and "Proposed" mean in this context

The Current and Proposed labels in slide 11 and slide 12 refer to the aggregate Verizon network state without (Current) and with (Proposed) the new facility added. The rasters are computed by combining the predicted RSRP contributions of every site in the Verizon network in the rendered area, including the existing Verizon corridor towers (SBA 2.27 mi west; AMT 3.60 mi southwest; Placitas Site 4.12 mi east) and any other Verizon facilities within range, then selecting at each pixel the strongest server. The result is an aggregate-network RSRP raster.

This is the standard format for carrier-internal RF planning visualizations, and it is the conventional format used in zoning submissions to display "before" and "after" coverage. The format has a specific consequence that is central to Part III's critique: the marginal contribution of the proposed site to each pixel is not directly readable from either map. To know what the proposed site adds, one must compute the difference between the two rasters pixel by pixel. That difference is not displayed in the submission.

2.3 Slides 11 and 12 — Current and Proposed

Both rasters are reproduced below for reference. The two rasters use the same projection, zoom, color scale, and threshold legend, which is methodologically appropriate for the side-by-side comparison the applicant intends. They differ in one analytical respect: the Proposed map includes the proposed RAD center as an additional emitter at the marked "Proposed Site" location.

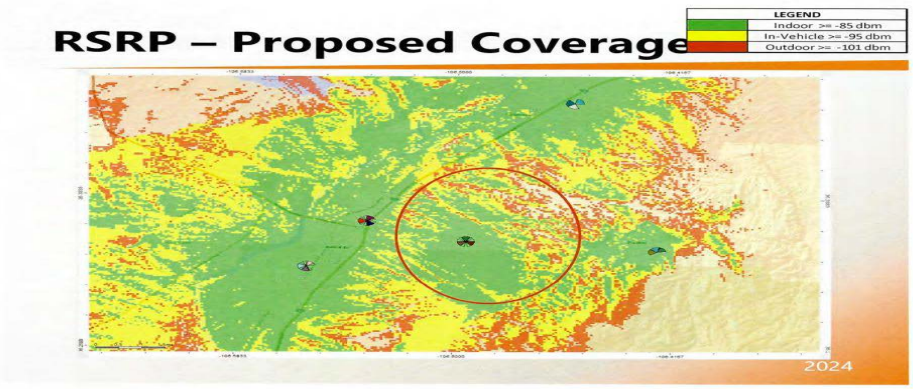

Figure 3. Biwabkos slide 11 — "RSRP — Current Coverage." Aggregate Verizon network RSRP for the Placitas service area, all existing sites combined. The red ellipse marks the alleged coverage gap. Legend: green ≥ −85 dBm Indoor; yellow ≥ −95 dBm In-Vehicle; red ≥ −101 dBm Outdoor; white < −101 dBm.

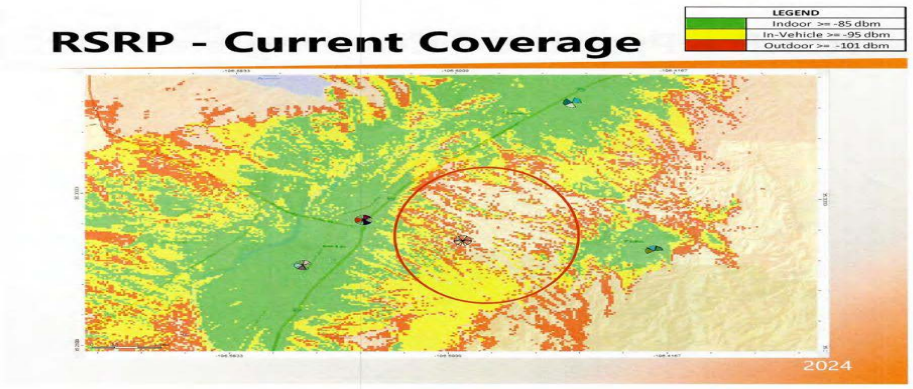

Figure 4. Biwabkos slide 12 — "RSRP — Proposed Coverage." Same aggregate Verizon network with the proposed site added at the marked location. The green expansion is concentrated to the south, southwest, and west of the proposed site — descending terrain, open foothills, and the Bernalillo basin

corridor. The eastern back-canyon shadow zones identified in Part II remain largely red (Outdoor edge-of-service) or white (no-service) in the Proposed raster, despite the addition of the new site.

2.4 The slide 13 / 14 Comparison panels

Slides 13 and 14 reproduce slides 11 and 12 as half-panels in a side-by-side Comparison frame. They display the same data at the same projection. The Comparison frame makes the visual interpretation easier — one can see directly where the green (Indoor) region grows from slide 13 (Current) to slide 14 (Proposed). The growth occurs predominantly to the south and southwest of the proposed-site marker: into the open Sandia foothills, into the descending terrain toward NM-165 west, and toward the Bernalillo basin.

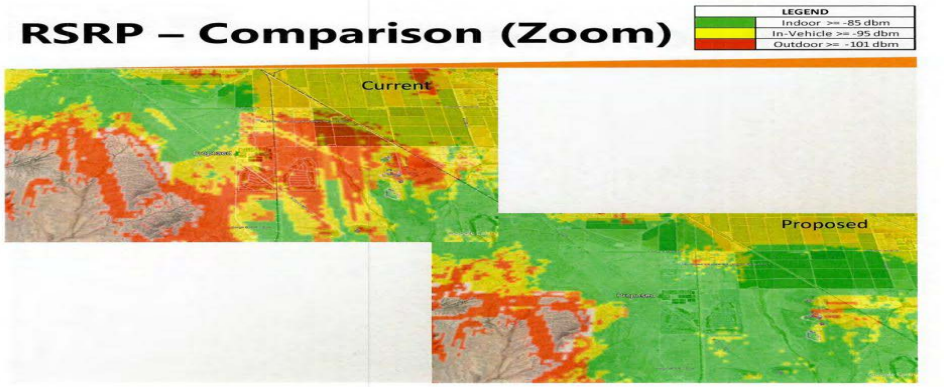

Figure 5. Biwabkos slide 14 — paired "RSRP — Comparison" panel showing Current (upper) and Proposed (lower) coverage at the same projection. The green expansion in the Proposed panel concentrates south and southwest of the proposed-site marker. The back-canyon shadow zones to the east (toward the Overlook and the Las Huertas drainage approach) remain comparable between Current and Proposed.

3. What the Submission Is Missing

3.1 The missing analytical artifact — the marginal-contribution map

The analytical artifact that would directly demonstrate whether the proposed site delivers new service to underserved populations is an isolated marginal-contribution map: a per-pixel computation of the RSRP delivered by the proposed site alone, at each location, with all other Verizon sites turned off. Equivalently, it is the pixel-by-pixel difference between slide 12 and slide 11, displayed on the same projection and zoom as those slides, with a quantitative legend in decibels of improvement (Δ-RSRP).

The marginal-contribution map is the proper analytical instrument for the question the application asks: where does the proposed site improve service. It is not the aggregate-network format used in slides 11 and 12. The two formats answer different questions:

- **Aggregate network rasters (slides 11 and 12).** Answer the question: in the rendered area, what is the RSRP delivered by the strongest server at each pixel? This is the question a carrier asks for service-marketing and customer-facing coverage-map purposes.
- **Marginal-contribution map (not in submission).** Answers the question: in the rendered area, what is the improvement in delivered RSRP attributable to the proposed site? This is the question a zoning factfinder asks for a coverage-need determination.

The applicant has submitted the wrong instrument for the question the Commission is asked to decide.

3.2 Other omissions

Independent reconstruction of the applicant's RSRP prediction is also obstructed by the omission of the following items from the submission:

- **Antenna model and per-sector pattern.** The application does not disclose the manufacturer or model number of the deployed antennas, the per-sector azimuth pattern (typical half-power beamwidth 65° to 90°), the per-sector elevation pattern (typical half-power vertical beamwidth 6° to 9°), or the mechanical and electrical downtilt settings. Without these parameters, the angular distribution of transmitted RF energy cannot be computed. Standard macrocell antenna patterns (e.g., Commscope, Amphenol, Ericsson, Huawei, Kathrein) span a factor of two in vertical beamwidth and 15 to 25 dB in side-lobe suppression; the pattern choice is not a small detail.
- **Transmit power.** The submission does not state the per-sector transmit power (typical macrocell low-band: 40 W to 60 W per sector; mid-band: 80 W to 120 W per sector at the antenna port). EIRP depends on transmit power times antenna gain (typical macrocell antenna gain: 14 to 18 dBi). Free-space path loss at any given range is independent of EIRP, but the threshold contours displayed in the legend depend directly on it. A 3 dB change in EIRP shifts every threshold contour outward or inward in a direction-dependent way.

- **Propagation model and terrain dataset.** The submission does not identify which propagation model produced slides 11 and 12 (ITU-R P.1812; Longley-Rice ITM; a proprietary Aircom Asset / ATDI ICS Telecom / Forsk Atoll prediction; or a Volcano or Wireless InSite ray-tracing engine). It does not identify the terrain dataset (USGS NED 1/3 arc-second vs 1 arc-second SRTM vs proprietary LiDAR), the land-cover clutter database, or the clutter loss table applied. These choices materially affect the prediction; a P.1812 prediction at 1 arc-second SRTM against a P.1812 prediction at 1/3 arc-second NED at the same site can disagree by 3 to 8 dB in arroyo geometry.
- **Receiver assumptions.** The submission does not state the assumed receiver height (typically 1.5 m for handheld), receiver antenna gain (typically 0 dBi for handheld; +5 to +8 dBi for in-vehicle external), or the noise figure / sensitivity floor used to set the −101 dBm Outdoor threshold. A −101 dBm RSRP for a handheld user with a 0 dBi receive antenna corresponds to a substantially different in-building usable signal than the same −101 dBm RSRP for an in-vehicle receiver with a +6 dBi roof-mounted antenna.
- **Building entry loss.** The application's "Indoor ≥ −85 dBm" classification does not subtract building entry loss for typical Placitas construction. Stucco-on-metal-lath construction, which is the dominant Placitas building envelope per Casey (1988) and ITU-R P.2109-2, exhibits BPL of 30 to 35 dB at B13 (751 MHz) and 21 to 26 dB at B66 (2127.5 MHz). A −85 dBm outdoor RSRP corresponds to an indoor RSRP of −115 to −120 dBm at B13 and −106 to −111 dBm at B66 — well below any usable LTE service threshold at either band. The "Indoor" classification on slides 11 and 12 is therefore not a usable indoor service level for typical Placitas residential construction. Part I § 6.5 develops the BPL framework in detail.

Taken together, these omissions mean the submission's RSRP rasters cannot be independently reconstructed or audited. The Commission is asked to accept a prediction whose underlying assumptions are not on the record.

4. Visual Reading of Slides 11–14

4.1 The Current map (slide 11)

Reading slide 11 (Figure 3) against the geographic features of the Placitas service area, the following pattern is visible:

- Green (Indoor ≥ −85 dBm) zones cluster in the NM-165 corridor immediately east of the proposed-site marker, along the descending terrain toward the Bernalillo basin to the west and southwest, and on the broad open foothills south of NM-165 toward the Sandia front. These are the sectors already served by the existing corridor towers (SBA 2.27 mi W; AMT 3.60 mi SW).
- Yellow (In-Vehicle ≥ −95 dBm) zones surround the green cores and bleed into the eastern and northern peripheries of the rendered area.
- Red and white zones (Outdoor edge or below) dominate the eastern arroyos and back canyons identified in Part II as the Class D geometric shadow neighborhoods, the upper Las Huertas drainage, and the northern Tunnel Springs area.
- The red ellipse drawn on the map identifies the alleged coverage gap. Inside the ellipse, the dominant color is yellow / red / white, not green — i.e., the ellipse interior is, per the applicant's own raster, a sub-edge-of-service region.

4.2 The Proposed map (slide 12)

Reading slide 12 (Figure 4) against slide 11:

- Green expansion is concentrated south and southwest of the proposed-site marker — into the open Sandia foothills, into the descending NM-165 corridor toward the west, and toward the Bernalillo basin descent.
- A roughly circular green halo appears around the proposed-site marker, with radius approximately ¼ to ½ mile. This is the Class B tower-adjacent ring identified in Part II § 5.2.
- Eastern back-canyon shadow zones, identified in Part II as Class D, remain dominantly red, yellow, or white in the Proposed raster. The slide-12 raster does not turn these zones green.
- Northern Tunnel Springs and Sundance Mesa back-canyon areas remain in the red/white edge-of-service band. The proposed site does not deliver Indoor classification to these areas at the resolution of the slide-12 raster.

4.3 The implication

The pattern of where the green expansion lands in slide 12, compared to slide 11, is the visual signature of the geometric LOS analysis developed independently in Part II. The proposed site delivers signal to the sectors it can geometrically see, and it does not deliver signal to the sectors it cannot geometrically see. This is the Affuso-style empirical convergence — independent methods producing concordant predictions — that supports treating either method (the applicant's

aggregate raster, or Part II's geometric LOS) as a usable predictor for this specific terrain. The conclusion is the same in either frame: the proposed site does not bring new service to the back canyons.

4.4 The isolated viewshed of only the proposed tower

Where slides 11 and 12 render the aggregate Verizon network state, an isolated viewshed of the proposed tower alone — every other Verizon facility's contribution removed — makes the marginal-contribution question directly visible. Figure 6 below presents such a viewshed, rendered against Google Earth terrain from the proposed RAD center (marked "Tower1," arrow). Green shading indicates terrain that has geometric line of sight to the proposed antenna; areas without green shading do not. The isolated viewshed is the visual analog of the marginal-contribution map identified as missing from the application in § 3.1 — and it makes plain what slides 11 and 12 conceal behind the aggregate-network rendering.

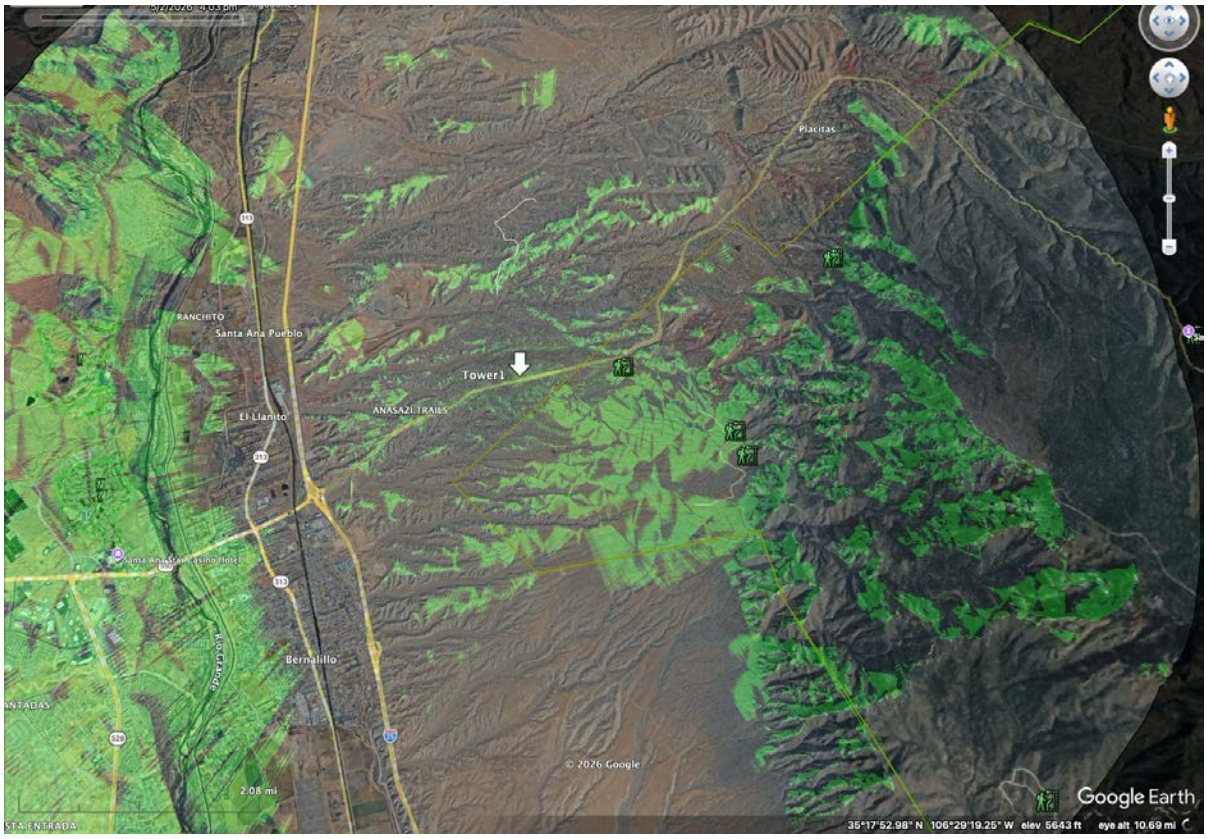

Figure 6. Isolated viewshed of the proposed tower at 221 NM-165 (marked "Tower1," arrow) rendered against Google Earth terrain. Green shading indicates terrain with geometric line of sight to the proposed antenna; absence of green indicates geometric shadow. The historical Village of Placitas (labeled, upper right) lies in the dark zone — the proposed antenna does not deliver signal to the village because the Overlook ridge blocks the line of sight. The dense green to the southwest and west falls on Bernalillo, the I-25 corridor, Santa Ana Pueblo, El Llanito, and the open Rio Grande Valley descent — sectors already served by existing Verizon facilities. The arroyos and back canyons of residential Placitas appear as dark unshaded gaps within the green shading.

Three observations follow directly from Figure 6:

- **The historical Village of Placitas is not in the green coverage zone.** The labeled "Placitas" location on the upper-right of Figure 6 sits in the dark, unshaded area. The Overlook ridge between the proposed RAD center and the village — Part II § 2.2 — blocks the geometric line of sight, and the village receives no marginal signal from the proposed tower. This is the Class D geometric shadow developed in Part II § 5.4, made directly visible here in a single frame.
- **The dense green concentrates on already-served sectors.** The broad continuous green region covering Bernalillo, the I-25 corridor, Santa Ana Pueblo, El Llanito, and the Rio Grande Valley descent is the geographic footprint where the proposed tower delivers usable LOS. This is the Class A sector identified in Part II § 5.1 as already served by the existing Verizon SBA tower (2.27 mi W) and AMT tower (3.60 mi SW). The marginal contribution of the proposed tower to these sectors is redundancy with existing infrastructure, not new service.
- **The arroyos and back canyons appear as dark gaps within the green.** Within the residential Placitas service area, green shading is interrupted by dark zones tracing the arroyo and canyon system. These dark interruptions are the Class D shadow zones — Sundance Mesa back canyons, Ranchos des Placitas, Vista de Oro, the upper Las Huertas drainage approach to the Overlook, and the Tunnel Springs Arroyo system — that the proposed tower cannot reach because the side-walls of the arroyos and the intervening side ridges interrupt the line of sight. No mechanical or electrical reconfiguration of the antenna corrects this; the limitation is geometric.

Why this matters for the record. Figure 6 and slides 11 / 12 (Figures 3 and 4) render the same underlying terrain and the same proposed antenna, but they answer different questions and produce visually inconsistent impressions. Slides 11 and 12 show the aggregate Verizon network state and present a coverage pattern that — because it combines the proposed tower's contribution with the existing-tower contributions — looks broadly green across the residential service area. Figure 6 shows the proposed tower's contribution in isolation and reveals that this aggregate-green impression is supplied principally by the existing-tower contributions, not by the proposed tower. The maps in slides 11 and 12 are not analytically wrong, but they are misleading as the evidentiary basis for a coverage-need finding: they hide the proposed tower's actual reach behind the network-aggregate rendering. Figure 6 supplies, in visual form, the marginal-contribution evidence that § 3.1 identifies as the missing analytical artifact — and what that evidence shows is consistent with Part II: the proposed tower delivers signal to the open western valley already served, and not to the village or the back canyons.

5. Best Server Analysis (Slides 15 and 16)

The Best Server pair (slides 15 and 16) shows, at each pixel, which Verizon facility is the strongest signal source (the "best" or dominant server). Different color codes correspond to different facilities. Comparing slide 15 (Current Best Server, below −120 dBm threshold) to slide 16 (Proposed Best Server with the new site added), one can identify the geographic region in which the proposed site becomes the dominant server.

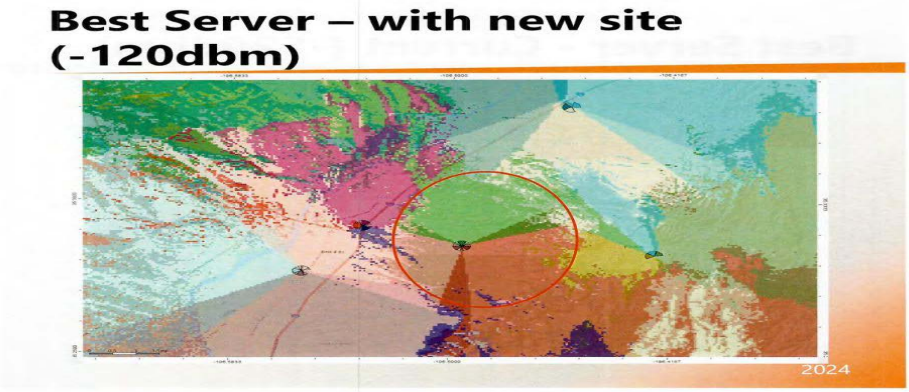

Figure 7. Biwabkos slide 16 — "Best Server — Proposed." The colored zone corresponding to the proposed site is the geographic region in which the new RAD center is the strongest server (dominant new server lobe). The lobe is concentrated to the south, southwest, and west of the proposed-site marker, extending toward the Bernalillo basin and the Sandia foothills, and overlapping substantially with sectors already served by existing corridor towers.

5.1 Reading the Best Server pair

Three observations about slides 15 and 16:

- **The dominant new server lobe extends south and southwest.** The geographic region in which the proposed site becomes the best server is concentrated to the south and southwest of the proposed-site marker. This is the same direction as the green expansion on slide 12 (the Indoor classification growth) and the same direction as the open viewshed on the Branum March 2026 analysis (Part II Figure 1). The three independent renderings converge on the same direction-of-coverage finding.
- **The new server lobe overlaps substantially with already-served sectors.** The Rio Grande Valley west and southwest of the proposed site is already classified as a strong-signal area on Verizon's published coverage map (verizon.com/coverage-map, captured

30 March 2026), reflecting service from the existing SBA tower (2.27 mi W) and AMT tower (3.60 mi SW). The new server lobe of the proposed site, displayed on slide 16, overlaps this sector. The slide-16 pattern is therefore consistent with the Part II finding that the Class A western valley sector is geographically redundantly served.

- **The new server lobe does not extend into the eastern back canyons.** Slide 16 does not show the proposed site becoming the best server in Sundance Mesa back canyons, in Ranchos des Placitas, in Vista de Oro, in the upper Las Huertas drainage, or in the historical village area east of the Overlook. These are the Class D geometric shadow neighborhoods of Part II § 5.4. They remain best-served (or under-served) by the existing facilities the Current panel (slide 15) shows in those areas. The proposed site does not become the dominant server in the back canyons because the proposed site does not have line of sight to them.

5.2 What the −120 dBm Current threshold tells us

The Best Server map on slide 15 uses a −120 dBm threshold, substantially below the −101 dBm Outdoor threshold on slides 11 and 12. A best-server determination at −120 dBm tells us only which facility has the strongest signal at each pixel, not whether that signal is usable. Many of the pixels classified at −120 dBm best-server are well below any threshold for usable LTE service (the LTE downlink demodulation floor is typically near −124 dBm for narrowband signaling channels and −110 to −115 dBm for usable broadband data). The −120 dBm threshold is appropriate for a network-handover analysis (which facility a UE camps on), not for a coverage-availability analysis. It is not the same threshold as the −101 dBm threshold on slides 11 and 12 and should not be conflated with usable service.

6. The OpenSignal Slide — Sampling Bias, Categorical Error, and Internal Contradiction

The applicant's RF Design Analysis includes a slide captioned "Open Signal Verizon Quality Map" purporting to demonstrate widespread bad-coverage reports in the Placitas area using crowdsourced data from the OpenSignal consumer application. The slide is reproduced below as Figure 8. This section evaluates the slide on its own analytical terms and finds three serious defects: a sampling bias that renders the geographic pattern uninterpretable as a coverage finding, a categorical error in the slide's own legend that conflates absence of measurement with absence of service, and an internal contradiction between the slide's central claim and the throughput panel reproduced on the same image.

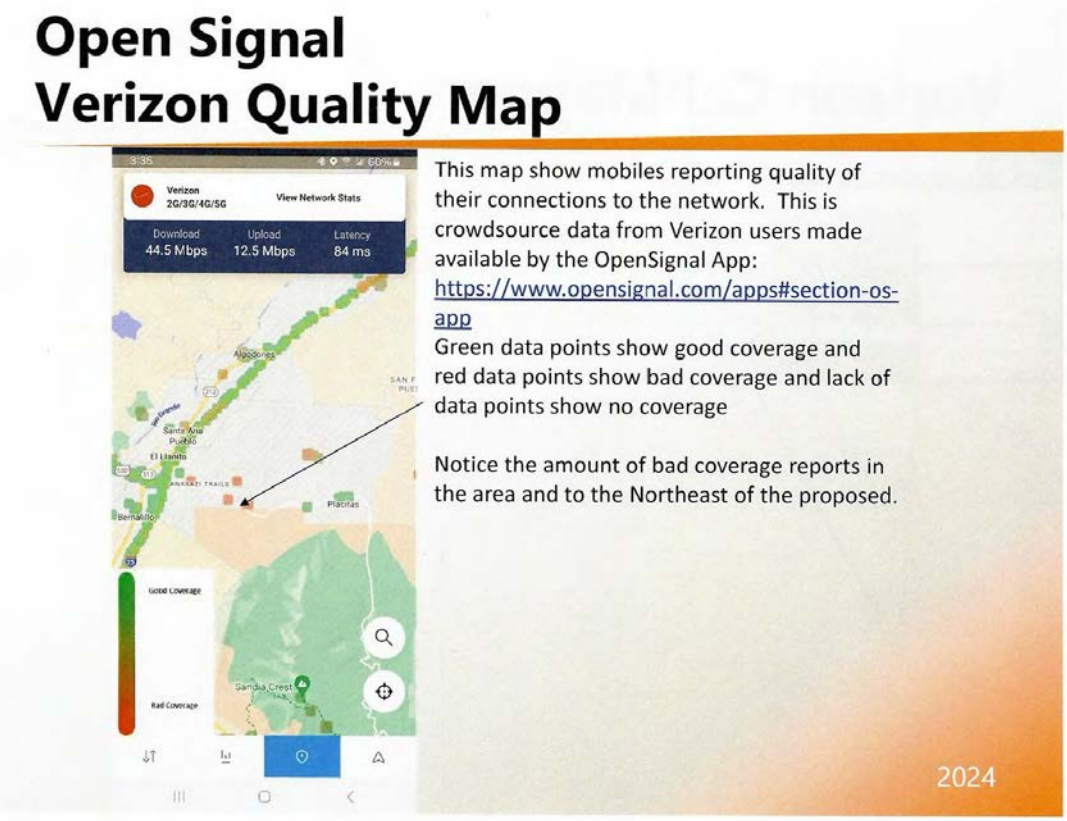

Figure 8. The applicant's "Open Signal Verizon Quality Map" slide. Upper panel shows an OpenSignal screenshot reporting Verizon Download 44.5 Mbps, Upload 12.5 Mbps, Latency 84 ms. The map below displays crowdsourced data points clustering tightly along the I-25 / NM-313 corridor through Bernalillo and Santa Ana Pueblo (dense green). A small number of scattered red / brown dots appear in the broader rural area. The slide's legend asserts that "Green data points show good coverage and red data points show bad coverage and lack of data points show no coverage."

6.1 What OpenSignal actually is, and what its data density measures

OpenSignal is a free consumer mobile application that crowdsources wireless-performance measurements. A data point appears in the OpenSignal database only where: (a) a user has installed the OpenSignal app on their mobile device; (b) the app is actively running and location services are enabled; (c) the user has not opted out of the contribution stream; and (d) a measurement event is triggered (typically a passive snapshot during ordinary phone use). The geographic density of OpenSignal data points therefore reflects the joint density of OpenSignal users present and active at that location, not the density of resident population, the density of residential parcels, or the density of wireless customers.

In a rural area such as Placitas, with low residential density and very low ambient OpenSignal-user activity, sparse data-point coverage is the predicted and statistically expected pattern. It is not evidence of anything about the wireless network. It is evidence of who happens to have the OpenSignal app installed and active in that neighborhood at that time.

6.2 The slide's legend contains a categorical error

The slide's narrative caption asserts:

"Green data points show good coverage and red data points show bad coverage and lack of data points show no coverage."

The first two clauses (color-coded data points indicating user-reported good or bad coverage) are defensible at the level of an individual measurement. The third clause — "lack of data points show no coverage" — is wrong. It is not a peripheral phrasing issue; it is a categorical error that inverts the meaning of the underlying data.

Absence of OpenSignal data points indicates one of two things: (1) the area has no OpenSignal users active, or (2) OpenSignal users in the area have not triggered measurement events. Neither implies the absence of wireless service. To conclude that lack of data points indicates lack of coverage is to commit the elementary statistical error of treating a sampling artifact (which locations the convenience sample happened to cover) as a population-level inference (whether the population at those locations receives service). The slide's legend is not a defensible technical characterization of crowdsourced data and should not be relied upon by the Commission as evidence of a coverage gap.

The point is straightforward: if no OpenSignal user happens to live in or drive through a residential cul-de-sac, the cul-de-sac will be unshaded on the slide regardless of whether the area has full bars of LTE service or none at all. The slide's legend tells the Commission to read the absence of measurement as evidence of absence of service. The legend is wrong.

6.3 The tight green band along the highway shows corridor traffic, not residential service

The dense linear band of green data points visible along the I-25 corridor and the NM-313 corridor through Bernalillo and Santa Ana Pueblo is the spatial signature of OpenSignal-app-equipped drivers and passengers traversing this corridor on the way to and from Albuquerque, Bernalillo,

Rio Rancho, and Santa Fe. The corridor is a high-traffic regional artery; the dense green band reflects the through-traffic density, not the local residential coverage quality. The same corridor is served by multiple Verizon cell sites placed by the carrier specifically to provide corridor coverage — the standard cellular architecture for any major U.S. highway. The corridor pattern in Figure 8 therefore demonstrates only that the I-25 corridor is well-served by Verizon, which is uncontested in the record and is not relevant to the question the Commission is asked to decide.

Critically, the corridor pattern in Figure 8 cannot be extrapolated outward from the corridor to the broader rural service area. The corridor pattern reflects the carrier's intentional choice to serve high-traffic transportation corridors; it does not reflect the coverage profile in the lower-density residential interior, and it does not establish any premise about coverage in the back canyons identified in Part II as the geometrically shadowed neighborhoods.

6.4 The scattered red dots are not statistically interpretable as a coverage finding

Visual inspection of Figure 8 in the Placitas service area reveals fewer than approximately ten red / brown dots — individual user-reported bad-coverage measurements scattered through a rural service area covering tens of square miles. The applicant's narrative characterizes these as evidence of widespread bad-coverage reports. Three observations:

- **The absolute count is small.** A literal count of red / brown dots visible in the Placitas residential service area in Figure 8 is fewer than ten. This is not a "large amount" of bad-coverage reports — it is a sparse handful of single-measurement events.
- **Individual data points are uncontextualized.** A single user-reported bad-coverage measurement can reflect indoor reception behind heavy construction (stucco-on-metal-lath BEL of 30–35 dB at B13, per Part I § 6.5), a phone in a pocket or purse, a momentary network glitch, a cell handover failure, the user moving through an arroyo floor, or a stale measurement from before a network upgrade. Without indoor-vs-outdoor classification, time-of-day stratification, building-envelope context, or a count of total measurements at the same location for context, individual red dots cannot support a coverage-gap finding. The OpenSignal data displayed in Figure 8 carries no such context on any of the visible dots.
- **The aggregate of the same data source refutes the bad-coverage characterization.** OpenSignal data, when aggregated by independent third parties (BestNeighborhood / NTIA Broadband Map / FCC Form 477), indicate that approximately 87.11 percent of Placitas homes are covered by Verizon 5G with measured throughput of 44.5 / 12.5 Mbps and 84 ms latency in the area Verizon labels a coverage gap (Technical Memorandum on Coverage Claims, V2, integrated project record; ESCA Board briefing, 10 May 2026, slide 21). The aggregate measurement from the same data source does not support the bad-coverage characterization of the unaggregated individual red dots.

6.5 The slide contradicts itself

At the top of Figure 8, the OpenSignal screenshot displays the instantaneous Verizon-connection measurement at the time the screenshot was captured:

Download 44.5 Mbps • Upload 12.5 Mbps • Latency 84 ms

These are normal LTE / 5G performance figures. The 44.5 Mbps download throughput exceeds the FCC's 25 Mbps minimum-broadband definition (47 CFR Part 8, as updated by the FCC's 2024 Broadband Deployment Report); the 84 ms latency is within the conventional acceptable range for LTE service; and the throughput exceeds typical residential DSL service. By the FCC's own broadband definition, the connection displayed on this slide qualifies as broadband-grade wireless service.

The slide therefore submits, in its upper panel, a screenshot showing Verizon delivering broadband-grade service from the same OpenSignal data source that is then interpreted in the lower panel as showing a coverage gap. The two readings of the same data source on the same slide cannot both be correct:

- If OpenSignal is a reliable evidentiary source for the bad-coverage assertion in the lower panel, then the 44.5 Mbps measurement from the same OpenSignal source displayed in the upper panel refutes the assertion of a coverage deficiency in the area Verizon is testing.
- If OpenSignal is not the appropriate evidentiary source for a coverage-need finding (because of the sampling bias and the categorical legend error discussed in §§ 6.1–6.2), then the lower-panel claim has no evidentiary basis in any case.

Either way, the slide does not support the application's coverage-need claim.

6.6 Evidentiary weight

The OpenSignal slide is one of multiple lines of evidence the applicant cites in support of the coverage-need claim. Like the aggregate RSRP rasters of § 4, it is not analytically responsive to the question the Commission is asked to decide. It is responsive to a different and narrower question (where OpenSignal users have happened to log measurements), and even on that narrower question it relies on a sampling design that is biased toward the highway corridor, a legend that misclassifies absence of measurement as absence of service, and an interpretation that contradicts the throughput measurement displayed in the same image.

The slide should be assigned the evidentiary weight appropriate to uncurated crowdsourced consumer-app data with no quality control on receiver hardware, no indoor / outdoor context, severe geographic sampling bias, and a published legend that commits a categorical error — which is to say, very little weight. It should not be relied upon by the Commission as substantial evidence of a coverage gap requiring approval of the proposed 75-foot monopole.

7. Land-Status Cross-Reference — Whom the New Signal Serves

The marginal new signal delivered by the proposed site — visible in the slide 11 to slide 12 difference and as the dominant new server lobe on slide 16 — lands predominantly on land that has no permanent residential cellular users. This section quantifies that observation by cross-referencing the geographic distribution of the new signal against the land-status overlay developed in Part II § 6.2.

7.1 The land-status breakdown inside the rendered ellipse

Of approximately 2,688 acres inside the populated portion of the V2-fitted coverage-need ellipse, the following land-use breakdown is established by the integrated project record:

Sub-area inside ellipse	Approximate acreage	Permanent residential users	Receives new green on slide 12?
Liberman-Grevey active gravel mining (NW)	500 – 700 ac	None (active mining)	Substantial new green coverage
Cibola NF / BLM eastern lobe (Las Huertas drainage)	400 – 600 ac	Negligible (federal)	Limited; mostly red/white edge
Steep south-facing Sandia foothills (BLM)	200 – 400 ac	Negligible (federal / undevelopable)	Substantial new green coverage
Open NM-165 corridor and southwest descent	Not in ellipse residential count	Few (corridor right-of-way; already served)	Substantial new green coverage
Residential subdivisions inside ellipse	1,000 – 1,500 ac	≈ 350 – 500 homes	Limited; concentrated in Class B tower-adjacent ring
TOTAL (rendered portion)	≈ 2,688 ac	≈ 350 – 500 homes	—

The pattern is consistent across the analysis. The marginal green expansion on slide 12 is geographically dominated by:

- The open Sandia foothills south of NM-165 (Cibola NF and BLM uninhabited terrain).
- The descending NM-165 corridor west of the site and the Bernalillo basin descent (substantially served by existing corridor towers).
- The gravel pit / mining tract northwest of the site (no residential users; documented in Placitas Area Plan p. 11 as in active mining transition).
- The Class B tower-adjacent ring (the geographically smallest of the four categories; approximately ¼ to ½ mile around the tower base).

7.2 What the application would need to show to establish a residential service-need finding

To support a finding that the proposed site fills a coverage need on residential parcels rather than on uninhabited or already-served terrain, the application would need to display the marginal-contribution map overlaid with the parcel boundaries of the residential subdivisions, and demonstrate quantitatively that the Δ-RSRP exceeds a service-relevant threshold (e.g., 6 dB or 10 dB of improvement, with the threshold chosen to reflect usable-service criteria including building entry loss) on a substantial fraction of the residential parcels.

Neither the marginal-contribution map nor the residential-parcel overlay is in the submission. The Commission's record does not contain the analytical artifacts that would substantiate a residential coverage-need finding. It contains only the aggregate-network rasters of slides 11 and 12, which by construction cannot answer the residential coverage-need question.

8. The Applicant's Own Characterization — Offload Is the Driver

The applicant's own narrative slides explicitly identify offload and capacity, not coverage extension to underserved populations, as the principal objectives of the proposed facility. This is not an inference; it is the literal text of the submitted slides.

8.1 The Coverage versus Capacity definitions slide (Biwabkos slide 2)

Biwabkos slide 2 is captioned "Coverage vs Capacity" and provides the applicant's own definitions:

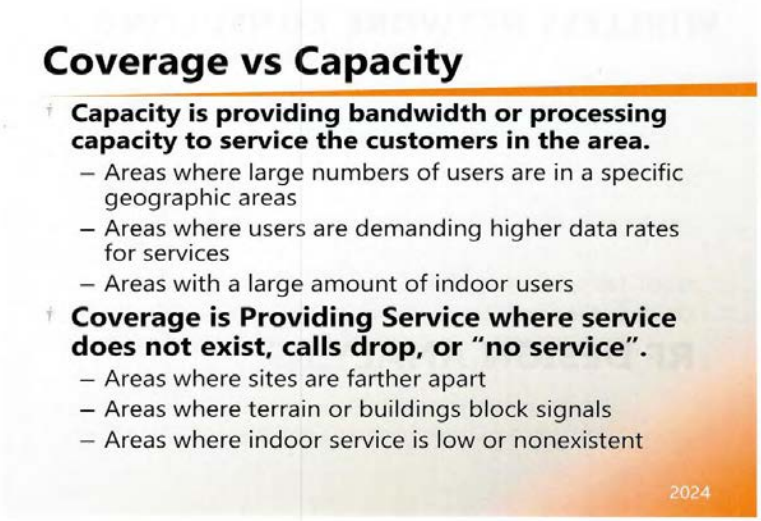

Figure 9. Biwabkos slide 2 — "Coverage vs Capacity." The applicant's own definitions, with bulleted sub-criteria for each category.

The applicant defines "Capacity" as "providing bandwidth or processing capacity to service the customers in the area," with sub-criteria including "Areas where large numbers of users are in a specific geographic areas," "Areas where users are demanding higher data rates for services," and "Areas with a large amount of indoor users." The applicant defines "Coverage" as "Providing Service where service does not exist, calls drop, or 'no service'," with sub-criteria including "Areas

where sites are farther apart," "Areas where terrain or buildings block signals," and "Areas where indoor service is low or nonexistent."

The applicant's own definitions are clear and correct. The two categories are functionally distinct in cellular network engineering. They are addressed by different architectural solutions: a Capacity problem in a high-traffic area is conventionally resolved by adding small cells, distributed antenna systems (DAS), or sector splits; a Coverage problem in a terrain-blocked area is conventionally resolved by adding macrocells, but the geometric reach of the new macro must be matched to the terrain that causes the gap.

8.2 The Objective of New Site slide (Biwabkos slide 3)

Biwabkos slide 3 is captioned "Objective of new site." Its content is reproduced below as Figure 10.

Figure 10. Biwabkos slide 3 — "Objective of new site." The applicant lists three Capacity objectives followed by two Coverage objectives.

The slide lists three objectives under "Capacity":

- *"Provide additional bandwidth for customers in the area surrounding the proposed site"*

- *"Provide better throughput for indoor users in the area"*
- *"Offload surrounding sites in area."*

The slide lists two objectives under "Coverage":

- *"Provide additional in-vehicle coverage along Hwy 165"*
- *"Provide additional indoor coverage in surrounding homes and businesses"*

8.3 What the applicant's own slide tells the Commission

Three observations about slide 3 are central to the record:

- **Capacity is listed first and has three bullets to Coverage's two.** In the cellular-engineering convention the applicant's own slide 2 establishes, that ordering and weighting is not accidental. The principal disclosed objective is Capacity.
- **The Capacity bullets describe an existing-customer business case, not a new-coverage public benefit.** "Provide additional bandwidth for customers in the area surrounding the proposed site" assumes the customers are already in the area receiving service — that is, the area already has coverage and the carrier seeks to upgrade throughput. "Provide better throughput for indoor users in the area" is similarly a within-existing-coverage upgrade. "Offload surrounding sites in area" is explicit traffic redistribution: shifting existing-customer traffic from existing congested sites to the new site. None of these three bullets describes new service to a previously-unserved population.
- **The Coverage bullets are narrowly qualified.** "In-vehicle coverage along Hwy 165" is a corridor-coverage objective along a state highway, not a residential service objective. "Indoor coverage in surrounding homes and businesses" describes proximity to the tower ("surrounding"), not the back-canyon and ridge-shadowed neighborhoods the application identifies elsewhere as the underserved population. Neither bullet maps to a service-extension finding for the Class C or Class D viewpoint populations of Part II.

8.4 The architectural mismatch

3GPP Technical Report 36.932 ("Scenarios and requirements for small cell enhancements for E-UTRA and E-UTRAN," Release 12) and subsequent 3GPP work establish that the engineered solution for a Capacity problem in cellular networks is the heterogeneous network (HetNet) architecture: macrocells provide wide-area coverage, while small cells, distributed antenna systems, and centralized RAN deployments provide local capacity at the high-traffic locations where demand concentrates. The HetNet framework has been the published 3GPP-recommended architecture for capacity remediation since Release 12 (2014).

Independent measurement of deployed wireless architecture in the same Placitas service area (project record, Technical Memorandum on Coverage Claims, V2; ESCA Board briefing, 10 May 2026, slide 21) documents that T-Mobile has approximately 30 small-cell facilities in the Placitas area and achieves 94.06% of homes covered by 5G with measured downlink throughput of 109.6 Mbps and 51 ms latency in the alleged coverage gap. Verizon has approximately 10 small-cell

facilities — roughly one-third the T-Mobile count — and achieves 87.11% home coverage with measured throughput of 44.5 Mbps. The architectural choice — small-cell densification (T-Mobile) versus single-macro proposal (Verizon CU-26-001) — is the variable that distinguishes the two carriers' performance in the same terrain.

Communities of comparable rural-edge character have written distributed-architecture frameworks into ordinance: Aspen, Colorado (master license agreement, November 2019, neutral-host model with effective small-cell spacing of approximately 250 feet); East Hampton, New York (2025 wireless master plan, approximately 200 small-cell facilities at 42-foot pole heights, administrative approval pathway). These are the architectural precedents that match the disclosed Capacity objective in Biwabkos slide 3. The 75-foot single-macro proposal at 221 NM-165 does not match the engineered architectural answer to the applicant's own stated principal objective.

9. Record-Completeness Remedy

9.1 The compelling-production remedy

Where the submitted record does not contain the analytical artifact required to substantiate a stated claim, the conventional record-completeness remedy is to compel the applicant to produce the missing artifact prior to a substantive determination. The Commission has the authority to require the applicant to produce the following items as a record-completeness condition:

- **1. Isolated marginal-contribution map.** A propagation prediction of RSRP delivered by the proposed site alone, with all other Verizon facilities in the area turned off, rendered at the same projection, zoom, and graphic scale as the slide 12 Proposed map, with a quantitative legend in decibels of improvement (Δ-RSRP) at the proposed site frequencies (B13, B5, B66). The map should be displayed both with and without the parcel boundaries of the residential subdivisions inside the V2-fitted ellipse overlaid, so that the Commission can determine pixel-by-pixel whether the new signal lands on inhabited residential land or on uninhabited / federal / mining / corridor terrain.
- **2. Antenna pattern disclosure.** The manufacturer, model number, per-sector azimuth pattern (with half-power beamwidth), per-sector elevation pattern (with half-power vertical beamwidth and first side-lobe level), and the mechanical and electrical downtilt settings for each sector. Without these, the Commission cannot independently verify the angular distribution of the EIRP that underlies slides 11 and 12.
- **3. Transmit power and link-budget worksheet.** Per-sector transmit power at the antenna port (W), feeder and connector loss budget, antenna gain (dBi), resulting EIRP (dBm or W), assumed receiver sensitivity, and receiver antenna gain assumptions for handheld, in-vehicle, and indoor receiver cases. With these, the threshold contours of slides 11 and 12 can be reconstructed by a third party using standard propagation tools.
- **4. Propagation model and terrain dataset identification.** The specific propagation model used (ITU-R P.1812; Longley-Rice ITM; the Forsk Atoll, Aircom Asset, ATDI ICS Telecom, or Wireless InSite engine), the terrain dataset and resolution, the land-cover clutter database, and the clutter loss table.
- **5. Indoor RSRP analysis with building entry loss.** An analogue of slide 12 with the Indoor classification threshold corrected for building entry loss appropriate to typical Placitas residential construction (stucco-on-metal-lath, 30–35 dB at B13; 21–26 dB at B66; Part I § 6.5). The resulting indoor-service classification on residential parcels will differ materially from the slide-12 outdoor-RSRP-based classification and is the analytically appropriate basis for an indoor-coverage finding.
- **6. Capacity / Offload disclosure.** If, as the applicant's slide 3 states, the principal objective is offload of surrounding sites, the applicant should disclose the current sector-utilization (loading) of the surrounding Verizon facilities (e.g., physical resource block utilization, average uplink/downlink traffic, peak-hour congestion metrics) to substantiate the capacity-need claim. This disclosure makes the Commission's evaluation of the capacity rationale possible on its own terms.

9.2 Procedural framing

The compelling-production remedy is consistent with the conventional zoning-evaluation framework and does not require any substantive determination of merit. It is a record-completeness procedural step that permits the Commission to render its substantive coverage-need determination on a complete record. Until the marginal-contribution map and the other items above are produced, the Commission's record contains only an aggregate-network raster, which is not the artifact that answers the coverage-need question, and an applicant-disclosed principal objective (offload) for which the proposed macrocell is not the engineered architectural solution.

10. Conclusions

Part III establishes, on the basis of the applicant's own submitted materials, the following findings:

- **Finding 1.** The applicant's submitted RF Design Analysis contains aggregate Verizon-network RSRP rasters (slides 11, 12, 13, 14) and aggregate Best Server panels (slides 15, 16). It does not contain the analytical artifact that would substantiate a coverage-need finding for the proposed site: an isolated marginal-contribution map displaying the Δ-RSRP delivered by the proposed site alone, at the same projection as slide 12.
- **Finding 2.** Visual inspection of the submitted rasters shows the green (Indoor) expansion from slide 11 to slide 12 concentrated to the south, southwest, and west of the proposed-site marker — predominantly on the open Sandia foothills, the descending NM-165 corridor, the Bernalillo basin descent, and the Liberman-Grevey gravel pit area. These are the sectors with the strongest geometric line of sight from the proposed RAD center, as established independently in Part II.
- **Finding 3.** The marginal new coverage delivered by the proposed site lands predominantly on land that has no permanent residential users (gravel pit, Cibola NF / BLM, steep undevelopable foothills) or on sectors already served by existing Verizon corridor facilities (SBA 2.27 mi W; AMT 3.60 mi SW). The Class D back-canyon and ridge-shadowed neighborhoods identified in Part II as the underserved population are not turned green by the addition of the proposed site.
- **Finding 4.** The applicant's own Objective of New Site slide (Biwabkos slide 3) explicitly identifies offload of surrounding sites as one of three Capacity objectives, lists Capacity above Coverage, and qualifies its two Coverage bullets to corridor and surrounding-proximity contexts. The principal disclosed objective is Capacity, not coverage extension to underserved populations.
- **Finding 5.** The engineered architectural answer to a Capacity objective in cellular networks is the heterogeneous network (HetNet) framework — small cells, distributed antenna systems, centralized RAN — established by 3GPP TR 36.932 (Release 12) and subsequent specifications. The 75-foot single-macro proposal at 221 NM-165 does not match this architectural answer. Independent measurement (T-Mobile, 30 small cells, 94.06% home coverage, 109.6 Mbps measured throughput; Verizon, 10 small cells, 87.11% home coverage, 44.5 Mbps) and municipal precedent (Aspen, CO 2019; East Hampton, NY 2025) demonstrate that the HetNet architecture is deployed and effective in comparable terrain.
- **Finding 6.** The submission does not disclose the antenna pattern, transmit power, propagation model and terrain dataset, receiver assumptions, or building entry loss treatment that would permit independent reconstruction of the RSRP prediction. These omissions are not cosmetic; each materially affects the threshold contours that anchor the application's coverage-need argument.
- **Finding 7.** The applicant's OpenSignal "Verizon Quality Map" slide does not support the coverage-need claim it is offered to substantiate. Its sampling is biased toward the I-25 highway corridor (where dense data points reflect through-traffic, not residential

coverage); its legend asserts that absence of data points indicates absence of coverage, which is a categorical error that conflates absence of measurement with absence of service; and its upper panel internally contradicts its central claim by displaying Verizon delivering 44.5 Mbps / 12.5 Mbps / 84 ms — broadband-grade service exceeding the FCC's 25 Mbps definition — from the same OpenSignal data source on which the bad-coverage assertion in the lower panel rests. The slide should be assigned very little evidentiary weight.

- **Finding 8.** The conventional record-completeness remedy is to compel production of an isolated marginal-contribution map and the omitted technical-disclosure items listed in § 9.1 prior to any substantive coverage-need determination. The submitted record, taken as it stands, does not contain the analytical artifacts required to substantiate the application's stated coverage-need claim.

Integration with Part II. The Part II finding (the geometric LOS test) and the Part III finding (the aggregate-raster format does not show what the application asserts) converge on a single record-level conclusion: the application has not demonstrated that the proposed site delivers meaningful new service to the populations it identifies as underserved. Part II shows the geometry of the site cannot reach those populations. Part III shows the submitted RSRP analysis does not address whether it does. Either finding, taken alone, is sufficient. Together, they exhaust the merits of the coverage-need argument as it is presented in the application.

References

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Biwabkos Consultants for Pinnacle Consulting (2024). RF Design Analysis Report (30 slides), Verizon Wireless, Sun State Towers Site NM01-148 Spike / ABQ Tierra Madre, 221 NM-165, Placitas, NM. Submitted as part of CU-26-001 application materials.

Casey, S. (1988). "Measurements of building wall penetration loss at frequencies in the 800–1000 MHz range." Proceedings of the IEEE Vehicular Technology Conference.

East Hampton, New York (Town of) (2025). Wireless Master Plan. Town Board adoption documents and Crown Castle release.

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Pinnacle Consulting (2024). CU-26-001 application materials and site plan (Sheets Z-1 through Z-6), Sun State Towers IV, LLC. Filed with Sandoval County Planning & Zoning Department.

Sandoval County, New Mexico (2009). Placitas Area Plan. Adopted ordinance, Sandoval County Planning & Zoning Commission.

Verizon Wireless (2026). Coverage map for western Placitas, New Mexico, captured 30 March 2026. verizon.com/coverage-map.

47 U.S.C. § 332(c)(7). Telecommunications Act of 1996 — preservation of local zoning authority over wireless facility siting.

47 U.S.C. § 1455(a). Section 6409(a) of the Spectrum Act (Middle Class Tax Relief and Job Creation Act of 2012). Modification-by-right framework.

47 CFR § 1.6100. FCC implementing regulations for 47 U.S.C. § 1455(a).

End of Part III — Critique of the Sponsor's RSRP Submission — V3

From:	C. Edwin Garner
To:	Planning and Zoning Main
Subject:	Re: Supplemental Submission for the Official Record — CU-26-001 (Proposed 75-Foot Wireless Monopole at 221 NM-165, Placitas); Public Hearing May 19, 2026
Date:	Sunday, May 17, 2026 5:03:03 AM
Attachments:	Technical_Memorandum_RSRP_Coverage_Analysis_V1 (5).pdf Technical_Memorandum_RSRP_Coverage_Analysis_V1 (3).pdf

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May 16, 2026

Doraida Arias

Interim Director, Planning and Zoning Department

Sandoval County

1500 Idalia Road, Building D

Bernalillo, NM 87004

Via email: P&ZMain@SandovalCountynm.gov

Re: Supplemental Submission for the Official Record — CU-26-001 (Proposed 75-Foot Wireless Monopole at 221 NM-165, Placitas); Public Hearing May 19, 2026

Dear Ms. Arias,

I write to supplement the existing administrative record on Conditional Use Permit application CU-26-001 in advance of the May 16, 2026 written-comment deadline. I understand from your office that you have assumed the role of Interim Director of Planning and Zoning effective May 1, 2026. I appreciate your continuity of attention to this case during the transition and the confirmation that the May 19, 2026 public hearing remains on the calendar.

For your reference, the following submissions from this household are already part of the CU-26-001 record:

- **February 26, 2026** — Formal opposition letter setting out seven grounds for denial (Placitas Area Plan conflict; inadequate stealth design; the County reviewer's own written concerns; unsatisfied co-location requirements; the unresolved northwest setback deficiency; undisclosed full build-out visual impact; and documented property value harm).
- **April 1, 2026** — Supplemental submission with the attached 19-viewpoint property value impact analysis (peer-reviewed methodology grounded in Affuso et al. 2018, Rajapaksa et al. 2018, and Marona et al. 2024).
- **April 18, 2026** — Second supplemental submission addressing the operation of Section 6409(a) of the Spectrum Act (47 U.S.C. § 1455) and the FCC implementing rules at 47 C.F.R. § 1.6100, which convert future modifications to an approved tower into a non-discretionary ministerial action.

The purpose of the present letter is narrower. It places into the record two **new**

technical findings developed since the April 29 submission that bear on the central question the Commission must decide: whether the application establishes the kind of significant gap in the applicant's service that is required to support a Conditional Use Permit. The supporting technical memoranda are referenced below and will be made available to the file in the next few days.

Finding 1 — Geographic Inversion of Coverage

The applicant's submitted engineering documents place the proposed tower base at approximately **5,503 ft NAVD88**with the Verizon antenna centerline at **5,574 ft NAVD88** (tower base + 71 ft AGL). The 19-viewpoint dataset already in the record allows direct comparison of the antenna centerline to the elevations of the residential pockets the tower is presented as serving.

Reorganized by line-of-sight geometry rather than visual-impact ranking, the dataset partitions cleanly into four classes:

- **Class A — Valley-side viewpoints below the tower base.** V1 at NM-165 / I-25 (5,187 ft), V2 (5,302 ft), V3 (5,328 ft), V4 (5,390 ft), and V14 (5,331 ft) all sit 113 to 391 ft below the tower base. These positions have clean line-of-sight to the antenna main beam and would receive the strongest signal from the proposed facility.
- **Class C — Elevated village viewpoints above the antenna centerline.** V5, V10, V11, V12, V18, and V19 sit between approximately 5,610 ft and 5,896 ft — i.e., from 36 ft to 322 ft above the Verizon antenna centerline. Standard sector-antenna downtilt geometry means these positions sit at or above the main-beam axis, in the upper sidelobes or in the rolled-off skirt of the antenna pattern, not in the principal coverage envelope.
- **Classes B and D —** The tower-adjacent ring and the terrain-shadowed back-canyon viewpoints sit between these two extremes and are discussed in the supporting memorandum.

The geometric consequence is straightforward. The 300 ft elevation above the valley-edge highway that makes the proposed site visually dominant is a coverage benefit for users in the Rio Grande Valley below Placitas, who already have established service from Verizon facilities on the I-25 / NM-165 corridor at 2.27 mi and 3.60 mi from the proposed site. For the elevated eastern residential pockets that the application materials present as the primary service population, the same elevation actively reduces the proposed tower's coverage capability relative to a lower-sited facility closer to the height of the homes it would serve.

The applicant's submitted RSRP "Current Coverage" map is consistent with this geometric reading: the eastern, elevated portion of the asserted target area is presented as receiving Verizon service at usable signal levels under the existing infrastructure. The supporting memorandum (Technical Memorandum — RSRP Propagation Map Analysis, May 4, 2026) also documents an asymmetric coverage difference between the "Current" and "Proposed" maps outside the target ellipse that cannot be attributed to the new tower's physical contribution and is best explained as a methodological artifact rather than a physical change in propagation.

Finding 2 — Composition of the Asserted Coverage-Need Footprint

The applicant's RF Design Analysis (Biwabkos Consultants LLC) anchors the need-justification for the proposed tower on a red ellipse drawn on RSRP coverage slides identifying the area where the new facility would, in the applicant's view, improve signal. Pixel-to-coordinate calibration of those maps using the published latitude and longitude reference lines yields the following parameters for that ellipse:

- **Center:** 35.30949° N, −106.48617° W (approximately 0.49 mi west-southwest of the proposed tower site at 221 NM-165).
- **Semi-axes:** 1.94 mi east-west, 2.55 mi north-south.
- **Enclosed area:** approximately 15.53 mi², or roughly 2,688 acres.

A review of what is actually inside this footprint produces a second finding that the Commission should consider when evaluating the asserted coverage need:

- **Liberman-Grevey Gravel Pit.** The Placitas Area Plan, at page 11 (West Placitas Area), documents an active mining tract of approximately 833 acres at this location, projected to transition to residential development at one dwelling unit per acre in approximately ten years. A substantial portion of that tract sits inside the northern lobe of the applicant's ellipse. It currently supports no permanent residential population.
- **Federal land.** The eastern portion of the ellipse extends into Bureau of Land Management and Cibola National Forest land that is not residential and is not the subject of any Verizon retail service obligation.
- **Topographic shadow.** Portions of the village of Placitas and the Anasazi Trails / Overlook residential areas to the east of the proposed site are shadowed from the tower by intervening ridges and elevated terrain documented in the independent ArcGIS viewshed analysis filed by J. Branum (March 2026).

Taken together, the applicant's own asserted coverage-need footprint is, on documentary review, substantially composed of non-residential land (active mining, federal land, and terrain-shadowed back canyons) rather than the homes the application materials present as the primary service population. This bears on the "significant gap" analysis under controlling Tenth Circuit and other federal authority interpreting 47 U.S.C. § 332(c)(7)(B)(i)(II): a gap is significant only if it leaves a meaningful number of users in a defined geographic area without service from the carrier in question. A coverage-need footprint substantially composed of active mining and federal land does not, on its face, satisfy that standard.

Supporting Technical Record

The two findings above are documented in the following technical memoranda, which I will provide to the file for inclusion in the May 19 record:

- **Technical Memorandum — Coverage Claims Analysis V2** (C. E. Garner, May 1, 2026). Addresses the applicant's submitted coverage deck at a general level, including the OpenSignal and CellMapper crowdsourced slides, the carrier-distance slides, and the "Why here?" rationale.
- **Technical Memorandum — RSRP Propagation Map Analysis V1** (C. E.

Garner, May 4, 2026). Addresses the applicant's submitted "Current" and "Proposed" RSRP propagation maps, the asymmetric coverage difference outside the target ellipse, and the engineering interpretation of the 3GPP RSRP metric.

Each memorandum addresses coverage and engineering only. Radio-frequency emission safety is federally preempted under Section 704 of the Telecommunications Act and is not raised in any of these materials, nor in this letter.

Requests

Consistent with the neutral, informational character of this submission, I respectfully request only the following:

- **(a)** That this letter be appended to the existing CU-26-001 record alongside the February 26, April 1, April 18, and April 29 submissions identified above.
- **(b)** That the three technical memoranda identified in the preceding section be included in the record when they are submitted to your office in the coming days, and made available to the Commissioners as part of the materials they review for the May 19 hearing.
- **(c)** That the April 29, 2026 request for written zoning determination on the CD-WP / SU classification question and on the procedural correctness of the CUP instrument receive a written response in advance of the May 19 hearing, as previously requested.

Closing

Thank you for your continuing administration of this case during the directorship transition. I appreciate the consistent professionalism your office has shown throughout this matter and will continue to direct all CU-26-001 correspondence to your attention. I am available to answer any questions about the methodology or the underlying data in any of the materials referenced in this letter.

Respectfully submitted,

C. Edwin Garner, Ph.D.

46 Camino Barranca

Placitas, NM 87043

halifax_garner@yahoo.com

cc: Sandoval County Planning and Zoning Commission

Commissioner Katherine Bruch, Sandoval County Commission, District 1

From: jack garland
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Monday, May 18, 2026 11:52:24 AM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

My wife and I left behind a life of skyscrapers, power lines, and noise to build our final home in Placitas. We designed it single-story specifically to frame the mountains and mesas. Three years in, the daily quiet on our patio — the songbirds, the open sky — is exactly what we came for. The prospect of a 75-foot tower with an equipment compound stepping into that view is something we take personally.

The site-selection record does not hold up. The County's priority order lists residential areas last — the least preferred location the rules recognize. Before landing here, the applicant tried the Fire Station, which ranks much higher on that list. When the lease talks broke down, they settled on a vacant lot in a residential-zoned area without anything in the materials showing what was reviewed in between. The rules are explicit: a failed lease negotiation is not an acceptable reason to skip the remaining priorities. Beyond that, the application's inventory covers other carriers' cell towers and nothing else. The County's rules ask for a survey of existing towers *and other suitable structures* within four miles — utility poles, building facades, streetlights, anywhere small antennas could go. The carrier with the best service in Placitas gets it through exactly that kind of infrastructure, without any new tower. The application skips the question entirely.

The location itself adds another layer. Homestead Plaza, the community hub directly next to this site, is where my neighbors and I eat dinner outdoors, hear live music, and run into each other on warm evenings. The restaurant patio would sit directly underneath the proposed tower. The "stealth" canister design changes the tower's shape; it doesn't change what it feels like to sit under a 75-foot industrial structure with cooling equipment at its base.

Finally, the application has gaps that leave compliance unverified. The County zoned this parcel for a shopping center and attached specific binding conditions to that designation. The application treats the zoning as plain CD-WP and says nothing about those conditions. An 8-foot coyote fence screens the ground equipment, but the 75-foot tower above it remains unscreened from the highway and from homes on three sides. The application also does not include the FAA evaluation the rules require to establish whether any lighting is needed at this height.

Once this tower is approved, federal rules commit the County to a band of future modifications without public process. The conditions written at this hearing are the conditions our community lives with. The application hasn't met the standard required to get there.

Please deny this application.

Sincerely,

Jack Shoup Garland

15 Tierra Madre Ct. Placitas N.M. 87043
Placitas, NM

From: Janis Hirsh
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Friday, May 15, 2026 8:24:37 PM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

I moved to Placitas more than 30 years ago, drawn from Albuquerque by everything this place offered — the open desert, the history, the quiet, and neighbors who felt like community before we'd even finished building our home. That is what we chose. A 75-foot industrial tower at the entrance to this community is not what we chose, and it is not what Placitas is.

Homestead Plaza is where Placitas gathers. I have eaten dinner on that restaurant patio, browsed the gallery, stopped in the market on my way home. The proposed tower would stand directly above the outdoor seating area. Whatever the "rustic copper canister" looks like at close range, at 75 feet it becomes the first thing every driver sees coming in on NM-165 and the constant backdrop for every meal on that patio. The community plan we spent years building to protect this area takes viewsheds and character seriously. This proposal doesn't engage with either, and I am concerned about what that means for the character of the one corner of Placitas that functions as a shared gathering place.

The site-selection record is thin in a specific way that concerns me. The County's rules set out a priority order — existing towers first, then County-owned land, then commercial and other zone types, with residential-zoned areas listed last. The applicant tried the County Fire Station, which sits near the top of that list. When the lease talks didn't come together, they ended up at a vacant lot in a residential area — the very last category the County recognizes — without apparent review of anything between number 2 and number 6 on the County's list. The rules are explicit that "this was the only site we could lease" is not sufficient grounds to skip everything else. Yet the application gives the alternatives one sentence, no parcel-by-parcel analysis of the multiple existing towers within four miles, and no written correspondence with those towers' owners — which the rules require. What it also skips entirely is small cells: small antennas on utility poles, building facades, and other existing structures, which the County's four-mile inventory rule covers under the phrase "other suitable structures." The carrier whose customers have noticeably better service across Placitas already delivers it through exactly that infrastructure. The application doesn't explain why Verizon's answer here has to be a 75-foot tower instead.

I worry about what a visible tower at this corner does to property values — for my neighbors and eventually for me. We came here because of what Placitas looked and felt like. When buyers come after us, they will see what we see. Please deny this application.

Sincerely,

JANIS C HIRSH
9 Calle la Paz
Placitas, NM

From: Janis Hirsh
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Friday, May 15, 2026 9:03:02 PM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,
We moved to Placitas almost 40 years ago for its rural beauty and its community. That is still what we have — open desert, neighbors who know each other, a place that feels deliberately unlike the sprawl to the west. The proposed tower would plant a 75-foot industrial structure at the entrance to all of it, visible from homes on three sides including ours, every day for the duration of a 99-year lease.

Homestead Plaza is where we go — for dinner on the patio, for a concert on a summer evening, for the market. The restaurant's outdoor seating would sit directly underneath this tower. That is not a hypothetical impact; it is a change to a place Placitas residents actually use. Whatever the stealth canister looks like on a rendering, 75 feet of painted metal does not disappear from view at the gateway to our neighborhood.

The site-selection record does not hold up. The County's rules set a clear priority order — existing towers and structures first, County-owned land second, residential areas last. The applicant tried the Fire Station, the lease talks fell apart, and they ended up on a lot in a residential area, the lowest category on the County's list, without documenting what was considered in between. The rules are explicit that "we couldn't lease the preferred site" is not a sufficient reason to land there. The application gives alternatives one sentence and includes no written correspondence from owners of the multiple existing towers within a few miles — the rules require correspondence. The application also says nothing about small cells on existing utility poles, building facades, and streetlights: exactly the infrastructure the County's inventory rule covers under "other suitable structures," and exactly how the carrier with the best service in Placitas already delivers it without building anything new.

When I sell my home, a 75-foot tower might be visible from the property and will matter to a buyer. The community plan we worked to build was meant to prevent this kind of incompatible use from landing at our front door. Please deny this application.

We moved here 38 years ago for the rural beauty and community. This would be a deplorable eyesore at the entrance to our neighborhood and home. We have no real political representation to voice our concerns. Who will benefit from this? Not the residents of Placitas. I oppose this application.

Placitas is not for sale!

Sincerely,

Janis Hirsh
9 Calle la Paz
Placitas, NM

From: Jerry Roblyer
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 12:51:24 PM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

Ann and I moved to Sundance Mesa from central Phoenix more than 25 years ago, and the night sky was one of the things that brought us here. Standing outside on a clear evening and actually seeing the stars — not a washed-out glow, but the real thing — was not incidental to our decision. It is still one of the reasons we stay.

What draws me to Homestead Plaza on summer evenings is the same instinct. It's the community market, the restaurant patio, the outdoor concerts where you run into your neighbors. The proposed tower would stand directly above those outdoor tables. Whatever the applicant calls the design — stealth, concealed, brown canister — at 75 feet it becomes the tallest structure for miles in open desert terrain. That is what people would look up at over dinner. In a landscape of single-story homes on large lots, the scale of this structure is impossible to reconcile with what our community planned for when it worked with the County to protect this area's character and this corner of it in particular.

The application also gives me no confidence that the right questions were asked before this site was chosen. The County's rules set a priority order for tower placement, with County-owned property near the top and areas zoned for residential use listed last. From what I can read, the applicant tried the Fire Station — near the top of that list — the lease talks didn't come together, and the next thing in the record is this lot in a residential area. There is nothing in the materials showing what was looked at between those two points. The rules also ask the applicant to look at existing towers and other suitable structures within four miles — not just other carriers' towers, but utility poles, building facades, streetlights, anything that could carry a small antenna. The carrier with the best service in Placitas delivers it through that kind of infrastructure, without any new towers. Verizon's application says nothing about why that path wasn't considered here. That is a gap the materials don't close, and the County's rules place the burden on the applicant to close it.

One additional thing: the application does not include the FAA evaluation the rules require to establish whether the proposed height triggers any lighting requirement at this site. We moved here partly for the nighttime sky. I'd want to see that evaluation in the record before anyone signs off on this.

I am asking the Commission to deny this application.

Sincerely,

Jerry Roblyer
37 Camino Manzano
Placitas, NM

From: cornblanket@yahoo.com
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 9:51:16 AM

Re: Application CU-26-001

Dear Commissioners,

My family moved to Placitas one year ago — we left Las Vegas Nevada specifically to get away from the visual clutter of a city that had grown up around us, the antennas and signs and structures that fill every sightline. We came here for the open desert, the sky, and the scale of the place. A 75-foot tower planted at the corner of Tierra Madre and NM-165, rising above everything around it, is exactly what we moved away from.

The proposed tower would be the tallest structure in the immediate area by a wide margin — taller than any home, any tree, any other feature along that stretch of NM-165. From the road it would be the first thing anyone sees entering Placitas. I understand the County adopted a community plan that specifically calls for protecting viewsheds, preserving the semi-rural character of this area, and keeping new development in scale with the landscape. A 75-foot industrial monopole is not in scale with anything around it, and the application doesn't seriously grapple with that. The applicant calls the design "stealth" — but a 75-foot painted canister is a different shape than a lattice tower, not a concealed one. The community plan our neighbors helped write was written precisely because Placitas is a specific kind of place. This application treats the site as if it could be anywhere.

The application also doesn't include the FAA evaluation the County's rules require — the analysis that would show whether any lighting is required at this height at this specific location. Without it, what gets placed on the tower after dark is simply unresolved in the materials before the Commission.

There are also less disruptive paths the application doesn't address. The carrier with the best coverage in Placitas delivers it through small antennas mounted on existing infrastructure — utility poles, building facades — without building new towers. Verizon uses the same technology here, just less of it. The application doesn't explain why the answer for this community has to be a 75-foot monopole when a different approach is already working a few streets over. The County's rules ask the applicant to inventory not just other carriers' towers but other suitable structures within four miles — anything that could plausibly host the equipment. What's in the application is a slide deck of nearby cell towers. That isn't the inventory the rules call for, and it isn't a conclusive showing that nothing else works.

I chose Placitas deliberately. Please deny this application.

Sincerely,

Jonathan Williams
3 Trails Rd W
Placitas, NM

From:	Keith Ungaro
To:	Planning and Zoning Main
Cc:	Judith Ungaro
Subject:	Opposition to CU-26-001
Date:	Saturday, May 16, 2026 6:08:16 PM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

My husband and I came to Placitas from the East Coast, having looked at many beautiful places before we settled here. We passed on some of them specifically because of a cell tower nearby — visible from the property, close enough to matter. We chose Placitas because nothing interrupted the view: mountains, open desert, the Sandia foothills. That was nine years ago. Now I read that a 75-foot tower is proposed for a lot I can see from my master bedroom, my bathroom, my kitchen window, and my patio. We have been through this before, in the search. We know what it does to a place.

The visual concern is not abstract for us — it is the reason we are here and the reason future buyers will hesitate. When we eventually sell, prospective buyers will stand in our bedroom and look straight at a 75-foot structure where the mountains used to be unobstructed. Studies have documented real, meaningful losses in property value for homes with that kind of visible exposure. The people who come after us will have to disclose it and price it. That cost lands on our family and on our neighbors — not on the applicant.

On site selection: from what I can read in the materials, the applicant first pursued the County Fire Station — County-owned land, and a much more preferred location under the County's own priority order. When that didn't work out, they ended up at a vacant lot in a residential area, which sits at the very bottom of the County's list of preferred sites. The application does not walk through what was considered between those two points. And the County's rules are explicit that an applicant cannot justify skipping higher-priority sites simply by saying the proposed location is the only one they could lease. That is the record here. The application also lists nearby carriers' towers without the written correspondence — the actual requests sent, the actual responses received — that the rules require as evidence that shared use was genuinely pursued. What's filed is a slide deck, not that documentation.

I also want the Commission to know what sits adjacent to this lot. Homestead Plaza is where my husband and I walk for dinner and summer concerts — it is a real gathering place for this community, and the restaurant patio would be directly underneath the proposed tower. The application does not include the FAA evaluation the County's rules require to confirm whether any lighting would be necessary at this height and location. That document belongs in the record before the Commission acts.

Please deny this application.

Sincerely,

Judith Ungaro
39 Camino Barranca
Placitas, NM

From: Katie Thomas
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Monday, May 18, 2026 7:25:11 AM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

Four years ago I chose Placitas for its mountain views and the quiet that comes with open desert — qualities that drew me here and that I still depend on every day. The corner where this tower would go up is one I pass regularly, and thinking about what that drive will look like once a 75-foot structure marks the entrance to Placitas is something I can't dismiss as minor.

Homestead Plaza is where I and my neighbors eat dinner on warm evenings and run into people we know at the market and the gallery. The outdoor seating at the restaurant sits right where the tower's compound would be. Whatever the applicant calls the design — rustic, concealed, blended — a 75-foot structure looming over people eating outside is not a design choice that disappears. The County is supposed to find that a proposed use is compatible with the character of the surrounding area. I don't see how that finding can be made in good conscience for a 75-foot industrial monopole placed directly over a working community gathering place.

The part of the application that most concerns me is the site-selection record. The County's rules establish a priority order for where towers should go, and residential-zoned areas are at the very bottom — listed last of six categories. The applicant tried the County Fire Station, which is near the top of that list. When the lease talks didn't come together, they ended up at a vacant lot in a residential-zoned area. The application doesn't show what was looked at between those two points, and a failed lease negotiation is precisely the justification the County's own rules say isn't enough to skip past everything in between. Beyond that, the rules require an actual inventory of existing towers AND other suitable structures within four miles — utility poles, building facades, streetlights, anything that could host small antennas. The carrier with the best service in Placitas delivers it through small cells on existing infrastructure, without any new tower. Verizon has that same technology available. The application doesn't address any of that infrastructure, which means the County is being asked to approve a new tower at the bottom of the priority list without a real accounting of the alternatives that sit above it.

On property values: this matters to me directly. We bought in Placitas knowing what it looked like. Peer-reviewed research documents meaningful losses on homes with visible exposure to towers. When I sell, a buyer will see what is standing at the entrance to this community and make their own calculation. The Commission should weigh that cost alongside whatever benefit the applicant is claiming.

Please deny this application.

Sincerely,

Katie Thomas

171 Windmill Trl N
Placitas, NM

Get Outlook for Android

From: Keith Ungaro
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 5:20:23 PM

Re: Application CU-26-001

Dear Commissioners,

Nine years ago my wife and I left suburban Philadelphia because we were surrounded by the visual clutter of a built-up suburb — cell towers among it — and we wanted to live somewhere we could actually see the land around us. We chose Placitas for exactly that reason. Today, from our master bedroom, our bathroom, and our back patio, we have an unobstructed view of the desert and the Sandia mountains. That is what we moved here for, and that is what a 75-foot monopole at the corner of Tierra Madre and NM-165 would change, permanently, every day.

The applicant describes the design as "stealth." A brown canister at 75 feet in open desert, surrounded by single-story homes on large lots, is the tallest structure for miles in any direction. Changing the shape does not change the height, and it does not change what I would see from my bedroom window each morning. When we eventually sell, a tower visible from the master bedroom is the kind of thing a buyer notices — and discounts accordingly. We did not buy our house to take on that loss.

The application also doesn't hold together on its own terms. The County adopted a specific set of binding development conditions when it zoned this parcel for a shopping center — mechanical-equipment screening from the highway and from residential properties, landscaping requirements, and others. The application doesn't tie the proposed design to those conditions. An 8-foot coyote fence screens equipment at ground level; it does nothing to screen a 75-foot tower from homes on three sides and from drivers on NM-165. Beyond that, the proposed tower location was chosen because the property owner wanted to preserve the rest of the parcel for future retail — not because this corner was the right place under the County's own standards for tower siting. That is the applicant's own correspondence, not my inference.

I'd also note that the application doesn't include the FAA evaluation that would establish whether any lighting is required at this height. That document should be in the record and, from what I can find, it isn't.

This hearing is the moment when the conditions attached to an approval become binding — and when a denial has the most force. I am asking the Commission to deny this application.

Sincerely,

Keith Ungaro
39 Camino Barranca
Placitas, NM

From: Laura Pressley
To: Planning and Zoning Main
Cc: Daniel Beaman
Subject: Proposed 75-ft Monopole at 221 NM-165, Placitas
Date: Saturday, May 16, 2026 11:14:56 AM
Attachments: Opposition to the Tower.pdf

Daniel J. Beaman, Planning Director
Sandoval County Planning & Zoning Department
dbeaman@sandovalcountynm.gov
Re: CU-26-001, Proposed 75-ft Monopole at 221 NM-165, Placitas

Dear Director Beaman:

I strongly oppose the Conditional Use Permit application for the proposed wireless tower at 221 NM-165.

My opposition to this application rests on the following legally permissible grounds:
- The proposed tower directly conflicts with the adopted Placitas Area Plan, which requires protection of viewsheds and the semi-rural character of the community;
- It is an inadequate “stealth” design, with 55 feet of bare steel pole visible; and
- Peer-reviewed research documents significant property value harm from visible wireless towers in residential areas.

I am also concerned about deficiencies in the application. The northwest setback of 46 feet 9 inches meets only 57% of the required fall-zone standard. The noise study evaluated only one carrier when three are planned. Additionally, Placitas is considered a high-risk area for wildfires, and cell towers in dry arid environments create additional fire hazards.

I respectfully request that the Commission deny CU-26-001.

Thank You,
Laura Wzorek Pressley
12a Trails Road East, Placitas, NM 87043

(PDF of letter attached)

From: Janis Hirsh
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Friday, May 15, 2026 8:34:04 PM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

Ten years ago I moved to Placitas for its quiet, its natural and cultural landscape, and its community. I chose a place that felt distinct — semi-rural, low-rise, human in scale. A 75-foot monopole at the corner of Tierra Madre and NM-165, rising well above every home and tree around it, is not that place. It becomes the first thing I see coming home and the first thing any visitor sees entering Placitas.

That corner already matters to the community. Homestead Plaza hosts a market, a restaurant with outdoor seating, a gallery, concerts. People gather there on warm evenings. The proposed tower would stand directly above the restaurant patio — and whatever the stealth canister looks like close up, at 75 feet it doesn't disappear. The applicant's own consultant noted the new location is "considerable more visible" than the prior candidate site. The application doesn't include a Zone of Visibility map or before-and-after photo simulations from nearby homes and gathering spots, so there is no way to verify how broadly the structure would be seen. For a proposal this visible, in a place this carefully characterized in the plan our community worked for years to write, that gap matters.

The site-selection record gives me little confidence the right path was taken. The County's rules set out a priority order: existing towers and structures at the top, County-owned land next, then commercial and industrial areas, with residential-zoned areas last. The applicant tried the Fire Station — second on that list — and when the lease talks didn't come together, they ended up at a lot in a residential area: the lowest category the County recognizes. The rules are explicit that "we couldn't lease the preferred site" is not a sufficient reason to skip the rest of the list. The application gives the alternatives one sentence. There are no written requests or rejection letters from owners of nearby existing towers — documents the rules require. And there is nothing about small cells: small antennas on utility poles, building facades, and other existing structures that deliver coverage without a new tower. The County's inventory rule covers "other suitable structures," not just other carriers' towers. That infrastructure goes unexamined.

The application also treats the zoning here as plain CD-WP and never acknowledges the more specific set of rules the County adopted when it zoned this parcel for a shopping center. Those rules attach binding development conditions. The proposed 8-foot fence around the ground equipment addresses the equipment compound — but the 75-foot tower above it is not concealed by an 8-foot fence. That is what people on three sides of this parcel and along NM-165 will actually see. Whether the proposed landscaping meets the conditions the parcel-specific rules require is also unresolved — the application files a landscape plan but doesn't demonstrate compliance with the 10-percent and automatic-watering requirements. I have not found the FAA evaluation in the materials that determines whether any lighting would be required at this height, so what the tower would look like after dark is an open question. When I think about what this visible structure would mean for property values — for my neighbors and for anyone buying here after us — I am genuinely concerned. Studies have documented

real losses for homes with tower exposure, and the community-level impact is not small.

The County's rules place the burden of proof squarely on the applicant. From what I can read in the materials filed, that burden has not been met on several of the requirements that matter most for this site. I am asking the Commission to deny this application.

Sincerely,

LORRAINE HIRSH
9 Calle la Paz
Placitas, NM

From: Marian Pace
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Monday, May 18, 2026 11:21:28 AM

Re: Application CU-26-001

Dear Commissioners,

I have lived in Placitas for 1 year — not long, but long enough to understand exactly why I chose to come here. The open desert, the quiet nights, the way the sky sits on top of everything without obstruction: these are not incidental features. They are the place.

The first thing I want to say about the site-selection record is that the applicant's own story doesn't hold up to scrutiny. The County's rules put County-owned property near the top of the preferred siting order; residential areas are at the bottom of the list. The applicant tried the Fire Station. When the lease talks didn't come together, they ended up at a vacant lot in a residential area — the least preferred location the County's rules recognize — without any apparent walk-through of what lies between number 2 and number 6 on the County's list. The rules are explicit: a failed lease negotiation is not a valid reason to skip the rest of the priorities. And the application says nothing about small cells — the low-profile antennas mounted on existing poles and building facades that already deliver better service across Placitas than this carrier does, without any new tower at all. The County's rules ask for a real inventory of existing towers and other suitable structures within four miles, followed by a conclusive showing that none of them would work. What was filed is a slide deck. That is not the same thing.

The choice of this corner also troubles me because of what's there. Homestead Plaza, right next to the proposed tower site, has become a genuine gathering place — a market, a restaurant, an art gallery, outdoor concerts on warm evenings. The restaurant's patio sits directly underneath where this tower would go. Whatever the applicant says about stealth design and visual mitigation, no canister paint job changes what it feels like to eat dinner under a 75-foot structure with cooling equipment running at its base. The County's own rules recognize that compatibility with the character of a neighborhood is a legitimate basis to deny a tower. What I see at that corner is a place people actually use together. A 75-foot industrial monopole belongs somewhere else.

On completeness: the application doesn't include the FAA evaluation the rules require to determine whether any lighting would be needed at this height. It also doesn't demonstrate through a clear site plan or setback diagram that the proposed location meets the distance requirements the rules set for abutting property lines and right-of-ways. These are things the applicant is supposed to show; they haven't.

I'm also thinking about what happens after an approval. Federal rules require the County to approve certain future modifications to an existing tower — collocation, equipment swaps, modest changes — without a full public hearing. That makes what gets decided at this hearing the conditions the community lives with. Getting those conditions right matters here more than in most places, because this site sits at Homestead Plaza, the gateway to Placitas, and whatever is approved there becomes a permanent feature of the place everyone drives into and comes home to.

For these reasons, I am asking the Commission to deny this application.

Sincerely,

Marian Pace
14 Nighthawk Ct
Placitas, NM

From: Mary Huntsman
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 6:14:14 PM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

I left Los Angeles County in December 2024 after decades of living with noise, traffic, crowding, sirens around the clock, and helicopters overhead at all hours. My son and I chose Placitas specifically — not just New Mexico, but this place — because of the open land, the peacefulness, the views, and the people. I have lived here for 1 year. The drive up and down NM-165, with the Sandia Mountains and the scattered homes set back from the road, is part of what we loved at first sight. A 75-foot tower planted right at the edge of that road would be an ABSOLUTE eyesore, as it would be the first and most prominent thing everyone would see coming into Placitas. I came here to leave behind exactly that kind of thing.

I understand that the County's rules rank the preferred locations for a new tower in order, with residential areas placed last. The applicant first tried the County Fire Station, which sits much higher on the County's priority order. When that lease didn't come together, they landed on a vacant lot in a residential area. The rules also prohibit an applicant from skipping higher-priority sites just because the proposed location is the only one they were able to lease. That is exactly the path the record describes. And when I look at the application, I don't find the real four-mile inventory of existing towers and other suitable structures — utility poles, building facades, streetlights — that the rules require, or the conclusive showing that none of them works. The carrier with the best service in Placitas right now delivers that service through small antennas on existing infrastructure. The application says nothing about why that path isn't the answer here.

All of us who eat on the patio at Blades Bistro, or gather at Soma's for coffee and conversation will have our beautiful scenery yanked from right under our noses. The community that gathers at Homestead Plaza, the gateway to Placitas, deserve better than to look up at a 75-foot industrial structure while trying to enjoy an evening meal or a summer concert. And for the homeowners nearby, a visible tower of this scale is the kind of thing that follows a property into every future sale. That is a real and lasting cost that falls on residents, not on the applicant.

I also note that the application does not appear to include the FAA evaluation the County's rules require — the one that would establish whether any lighting would be required at this height and location. That document should be in the record before the Commission acts.

For all of these reasons, I am asking the Commission to ABSOLUTELY DENY this application.

Sincerely,

Mary j huntsman
2 hillside drive
Placitas, NM

Sent from my iPad

From: johnmatte@comcast.net
To: Planning and Zoning Main
Cc: Matt Evanko
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 2:07:14 PM

Re: Application CU-26-001

Dear Commissioners,

I moved to Placitas in 1992 — for the views, the quiet, and the dark skies. More than 30 years later, all three of those things are still intact. That's not accidental; it reflects choices this community has made and choices the County has backed up with rules. This application asks you to make a different kind of choice.

From our master bedroom, our kitchen, our backyard — we look southeast toward the Sandia Mountains. A 75-foot tower at the corner of Tierra Madre and NM-165 lands in that sightline every day, for everyone in our part of Placitas. The applicant calls the design "stealth" and "concealed." At 75 feet in open desert terrain, surrounded by single-story homes, that description does not hold up. A brown canister at that height is still the tallest thing for miles. It's a different shape than a lattice tower — not a different visual fact.

The site-selection record is where I can't get past. The County's priority order for tower placement puts County-owned property near the top and residential-zoned areas at the very bottom — sixth of six. The applicant tried the Fire Station, the lease talks didn't come together, and they ended up at a vacant lot in a residential area. The application gives one sentence to explaining why, with no walk-through of what was considered between priority 2 and priority 6 on the County's list, and no written correspondence with owners of nearby existing towers — documents the rules require. Small cells on existing utility poles, building facades, and other structures aren't addressed at all, even though the County's inventory rule explicitly covers "other suitable structures," not just other carriers' towers. The carrier with better service across Placitas already delivers it through exactly that infrastructure. This application doesn't tell me why Verizon's answer has to be different.

The application also treats the zoning on this parcel as plain CD-WP, without acknowledging that the County adopted a specific set of binding development conditions when it zoned this lot for a shopping center. The proposed measures — an 8-foot fence around the ground equipment, a landscape plan — aren't framed as compliance with those conditions, and an 8-foot fence doesn't screen a 75-foot tower from the homes and highway around it.

I am asking the Commission to deny this application.

Sincerely,

Matthew Evanko
38 Anasazi Trails Loop
Placitas, NM 87043

From: Mike Elyea
To: Planning and Zoning Main
Subject: No Tower in Placitas: Reference CU-26-001
Date: Saturday, May 16, 2026 9:37:53 AM

I live approximately 500 yards from the proposed antenna construction. If built, this antenna will be directly in front of my view of the Sandia mountains.

What is the commission being asked to approve? A new 75-foot macrocell structure that will dominate the Placitas landscape for the foreseeable future. A permanent tower that can grow in size, and with the addition of space for two other carriers, and even larger concealment shroud.

This tower will not provide a significant increase in coverage to those in Placitas, particularly those east of the S-curve and in the deep arroyos. The application graphics bear this out: when overlaid with terrain and map images, much of the proposed coverage area is actually uninhabited federal land, and a gravel pit.

There are no graphics that show what the fully built-out tower will look like. And more importantly, what this tower alone will provide in terms of improved service. It is only shown as a composite of the proposed and existing Verizon systems.

The application also states that the principle purpose of the tower is to offload existing data traffic from nearby Verizon towers. This appears to provide more of a benefit to Verizon's network rather than customers in Placitas.

The application for this tower is lacking many details that would allow the commission to make a truly informed decision on its construction. And there are other solutions, such as microcell structures that can provide far more efficient cell coverage in difficult, terrain, such as Placitas. And with far less visual impact on the community as a whole.

For the stated reasons, I urge the commission to reject the proposal at this time.

Thank you for your consideration.

Michael Elyea
4 Bison Ct. Placitas NM 87043

From: Nancy Timper
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Monday, May 18, 2026 10:56:09 AM

Re: Application CU-26-001

Dear Commissioners,
I have lived in Placitas for 4 years, and that stretch of road along 165 near Homestead Plaza, the open desert behind it, the foothills framing everything — is what I think of when I think of home. A 75-foot structure at that corner would be the tallest thing for miles in any direction, and no stealth paint job changes that. It would be visible to every driver entering the area, every neighbor on three sides, and every diner sitting on the patio at the restaurant that sits directly next to the proposed site.

The application's RF deck lists one of the site's stated objectives as "Offload surrounding sites in area." That is a Verizon-network purpose, not something the people of Placitas asked for. The visual cost of a 75-foot industrial tower lands here; the benefit goes to Verizon's other towers somewhere else. I am a T-Mobile customer and my service is fine, but that is not the point. The point is that the application does not make a compelling case that this tower solves a problem Placitas has — it makes a case that it solves a problem Verizon has.

There are better ways to extend coverage to residents who need it. T-Mobile and AT&T already deliver service across West Placitas through small antennas mounted on existing infrastructure — no new tower required. The County's rules ask the applicant to look at existing towers and other suitable structures within four miles and conclusively show why none of them work. What was filed is a slide deck of other carriers' tower locations. That is not a comprehensive inventory, and it does not look at utility poles, building facades, streetlights, or any of the other infrastructure small cells already use here.

I am also mindful that once a tower like this is approved, federal rules require the County to approve certain future modifications — additional carriers, equipment swaps — without the kind of public process happening now. Whatever conditions the Commission attaches at this hearing are the conditions that travel with the tower. That makes the quality of the record before the Commission right now especially important — and the record the applicant has filed does not close the gaps the County's own rules require.

The application should be denied.

Sincerely,

Nancy Timper
5 Evergreen Drive
Placitas, NM

- Nancy

From: Nancy F Yates
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 8:47:36 AM

Re: Application CU-26-001

Dear Commissioners,

I built my home in Placitas more than 30 years ago, when the roads here were still dirt. I never plan to leave. When I chose this place, I chose the open desert landscape, the quiet, and the sky. A 75-foot tower at the corner of Tierra Madre and NM-165 — the first thing you see coming into Placitas — would change what this community looks like and feels like for everyone who lives here and everyone who visits.

The visual concern is straightforward: there is nothing near that site that comes close to 75 feet. Single-story homes, desert scrub, open foothills — that is the landscape Placitas has worked to preserve. An industrial monopole taller than any structure for miles does not blend into that. What I notice in the application is the absence of any before-and-after photo simulations from the vantage points residents actually live at. No zone of visibility map, no drawings showing what this looks like from the road or from a front porch. The County is being asked to approve something permanent — a 99-year lease — without any documentation of what we'd actually be looking at every day.

The concern isn't only visual. Homestead Plaza, right next to the proposed site, is where many of us go — for dinner, for outdoor concerts on summer evenings, for the community market. The restaurant patio would sit directly underneath this tower. That patio is not abstract to me; it is where my neighbors and I spend time together. A 75-foot industrial structure above it, with mechanical equipment running at its base, changes the character of that place in ways the application doesn't address at all.

I'm also troubled by what the application says about who this tower is actually meant to serve. The applicant's own RF analysis lists "Offload surrounding sites in area" as one of the site's objectives. That is a network benefit to Verizon — not to the people who live in Placitas. The visual cost and the property-value impact land here; part of the stated purpose goes somewhere else. The resident's concern that this tower is meant to benefit Bernalillo and Rio Rancho more than Placitas finds direct support in the application's own words. I do not think Placitas should be asked to absorb a 75-foot tower so that Verizon's other sites run more efficiently.

For these reasons, I am asking the Commission to deny this application.

Sincerely,

Nancy Yates
17 Calle La Paz
Placitas, NM

Sent from my iPhone

From: Pat Harrison Lewis
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Sunday, May 17, 2026 12:02:30 AM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

I have lived in Placitas for over 20 years, and at 85, my home is the only financial security I have. I am a widow, and if I ever need extended care, selling this house is how I pay for it. I do not have the luxury of absorbing a property-value loss because a corporation decided this corner of Placitas was convenient for its network.

Verizon's own RF deck defines coverage as delivering service "where service does not exist, calls drop, or 'no service.'" Their application maps paint patches of my area accordingly. But I have working Verizon service — voice and data — every day, in the very areas their map depicts as having none. The application is asking the County to approve a 75-foot industrial tower in our community to fill a gap that does not exist where I actually live. I also noticed that the RF compliance report references a California site — "Tenaya," "RoofView," "ROOF Area" — language that has no connection to a ground-mounted tower in Placitas. I would want to see an analysis actually prepared for this location.

The site-selection record is thin. The County's priority order puts existing towers first and County-owned land second; residential areas are listed last. The applicant tried the Fire Station, the lease didn't come together, and they ended up at a lot in a residential area — the lowest priority on the County's list — without any showing of what was considered in between. The rules are explicit that a failed lease negotiation is not enough to skip the rest of the list. And the application says nothing about small cells — small antennas on existing utility poles and building facades, the approach T-Mobile already uses to deliver the best service in Placitas without any new tower. The County's rules require the applicant to look at existing towers and other suitable structures within four miles. What was filed is a slide deck, not that inventory.

The application also lists "Offload surrounding sites in area" among the site's stated objectives. That is a benefit to Verizon's network, not to the people who live here. Whatever visual and property impact this tower would impose on Placitas, part of its stated purpose is relieving load on Verizon's towers elsewhere. That is not a trade I should be asked to make.

For all of these reasons, I am asking the Commission to deny this application.

Sincerely,

Patricia Harrison Lewis
1 Six Range Point Rd., Placitas, NM
Placitas, NM

Sent from my iPhone

From: Pat Harrison Lewis
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Sunday, May 17, 2026 1:13:20 AM

Re: Application CU-26-001

Dear Commissioners,

I have been a Verizon customer for over 20 years — the same length of time I have lived in Placitas. When I first moved here, a neighbor told me Verizon was the only reliable option in the area, and I switched. I have had good service ever since. So when I read that this application is justified by a coverage gap in my neighborhood, I went looking at the maps. Verizon's own RF deck defines coverage as delivering service "where service does not exist, calls drop, or 'no service'" — and then paints patches of Placitas accordingly. That does not match the place I live. I have working voice and data here every day. The application is asking the County to approve a 75-foot industrial structure in our community to fill a gap that does not exist where I actually live — and I would want to see an analysis actually prepared for this location, not one that references a California site, "Tenaya," a rooftop analysis tool, and "ROOF Area" language that has no obvious connection to a ground-mounted tower in Placitas.

I also noticed that the application's RF deck lists one of the site's stated objectives as "Offload surrounding sites in area." That is a benefit to Verizon's network, not to the people who live here. Whatever this tower would cost us in visual impact and property value, part of its stated purpose is relieving load on Verizon's towers somewhere else. That is not a trade I think Placitas should be asked to make.

On the site-selection question: the County's priority order lists residential areas last. The applicant tried the Fire Station — County-owned, near the top of the list — the lease didn't come together, and they ended up at a lot in a residential area without any walk-through of what was considered between those two points. A failed lease negotiation is not, under the County's own rules, a sufficient reason to skip the rest of the list. The application also says nothing about small cells — the technology the carrier with the best service in Placitas already uses, deploying small antennas on existing infrastructure without any new tower. The County's rules ask for an inventory of existing towers and other suitable structures within four miles. What was filed is a slide deck.

I want to be clear: my coverage is good, and the application does not explain how this tower improves it. Please deny this application.

Sincerely,

Patricia Harrison Lewis
1 Six Range Point Rd., Placitas, NM
Placitas, NM

Sent from my iPhone

From: Pat Harrison Lewis
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 11:46:13 PM

Re: Application CU-26-001

Dear Commissioners,

I moved to Placitas more than 20 years ago because it is genuinely beautiful — open desert, quiet nights, long views in every direction. Those things were not accidents; they were what I came here for. Driving past the corner of Tierra Madre and NM-165, knowing a 75-foot tower could be planted there, is something I find hard to accept.

My Verizon service is good. I have working voice and data here, every day. Verizon's own RF deck defines coverage as delivering service "where service does not exist, calls drop, or 'no service'" — and then maps my area as if that describes it. It doesn't. The application is asking the County to approve this tower to fill a gap that does not exist where I actually live, and the RF report itself appears to have been prepared for a different project — it references a California site, "Tenaya," a rooftop analysis platform called RoofView, and "ROOF Area" — language with no obvious connection to a ground-mounted tower in Placitas. I would want to see an analysis actually prepared for this location before the County acts on it.

I also noticed that the application's RF deck lists one of the site's stated objectives as "Offload surrounding sites in area." That is a benefit to Verizon's network, not to the people who live here. Whatever visual cost this tower imposes on Placitas, part of its stated purpose is moving load off Verizon's towers elsewhere. That is not a trade I think this community should be asked to make.

The site-selection record gives me no confidence this location was arrived at carefully. The County's rules rank County-owned property well above residential areas in the site preference order; the applicant tried the Fire Station, the lease talks broke down, and they landed on a lot in a residential-zoned area — the least preferred category on the County's list — without any visible walk-through of what was considered between those two points. The rules are clear that a failed lease negotiation does not justify skipping the rest of the list. The application also says nothing about small cells — small antennas on existing poles and building facades, the technology that already delivers the best service in Placitas without any new tower. The County's rules ask for an inventory of existing towers and other suitable structures within four miles, with a conclusive showing that none can do the job. What was filed is a slide deck.

Please deny this application.

Sincerely,

Patricia Harrison Lewis
1 Six Range Point Rd., Placitas, NM
Placitas, NM

Sent from my iPhone

From: C. Edwin Garner
To: Planning and Zoning Main; Katherine Bruch
Subject: Petition against Cell Tower
Date: Sunday, May 17, 2026 9:09:16 PM
Attachments: Petition Elec signatures.pdf
SCAN0037.PDF
SCAN0036.PDF

May 17, 2026

Doraida Arias

Interim Director, Planning & Zoning

Sandoval County

darias@sandovalcountynm.gov

Re: Sandoval County Case No. CU-26-001 — Community Petition for Public Record (239 Unique Signers Across 15 Placitas Community Neighborhoods)

Dear Director Arias,

I am submitting the attached community petition transcription log for entry into the public record on Sandoval County Case No. CU-26-001 (Conditional Use Permit application for the proposed 75-foot commercial wireless monopole at 221 NM-165) in advance of the May 19, 2026 public hearing.

The attached document (Petition_Signature_Transcription_V9.docx) consolidates three independent petition collection channels and documents 239 unique residents opposing the application, drawn from 264 valid signature events:

1. Original paper canvassing (SCAN0036.PDF) — 160 signature-line entries collected by neighborhood canvassers between April 8 and May 7, 2026.
2. Supplemental paper canvassing (SCAN0037.PDF) — 10 additional valid Placitas-resident entries.
3. Online petition (signatures.pdf, hosted at NoPlacitasTower.org) — 94 entries from Sandoval County residents.

The consolidated record applies the following audit standards: 17 confirmed cross-source duplicates (residents who signed through multiple channels) have been deduplicated; 7 intra-source duplicates were similarly resolved; and 12 out-of-jurisdiction signatures from Pagosa Springs, Colorado; Albuquerque; and the Town of Bernalillo have been excluded from valid counts and documented separately for transparency.

Geographic Distribution of Opposition

Community-level neighborhood assignments follow the 2026 Placitas Studio Tour community map (the authoritative reference for the named community neighborhoods of Placitas) supplemented by recorded HOA instruments for La Mesa Subdivision and Placitas Homesteads (the two formally recorded subdivisions not separately labeled on the PST map). Unique signers by community:

Placitas Community Neighborhood	Unique Signers
Tierra Madre	50
La Mesa Subdivision	34
Placitas Homesteads	20
Placitas West	20
Placitas Trails	16
Rancho de Placitas	13
Camino de Las Huertas	12
Village of Placitas	9
Placitas Heights	8
Sundance Mesa	7
Anasazi Trails	6
Petroglyph	5
Tunnel Springs	5
NM-165 corridor (direct frontage)	5
Diamond Tail	4
Other Placitas streets	25
TOTAL UNIQUE SIGNERS	**239**

Three observations the Commission may find relevant:

First, opposition is not concentrated in any single neighborhood. Fifteen of the named Placitas community neighborhoods plus the NM-165 corridor are represented in the petition record. The largest single community bloc (Tierra Madre, 50 signers) accounts for approximately one-fifth of the total; four additional communities contribute substantial numbers (La Mesa 34, Placitas Homesteads 20, Placitas West 20, Placitas Trails 16). No single neighborhood drives the count.

Second, the geographic spread covers the full Placitas study area — from the I-25 frontage west (Petroglyph, Anasazi Trails, Placitas West) through the central Tierra Madre, La Mesa, and Placitas Homesteads core, into the Camino de Las Huertas and Rancho de Placitas zones, eastward to the Village of Placitas and Diamond Tail, and including the southern Tunnel Springs and Placitas Heights communities. North, central, and south Placitas are all

represented.

Third, the petition includes signatures from properties on NM-165 itself, with frontage directly adjacent to and across from the proposed tower parcel (212 NM-165 and 863 NM-165 among them), as well as residents of the immediately abutting communities most directly affected by the viewshed and setback considerations the application raises.

Grounds for Opposition

The petition language states that the signatories urge denial on the following grounds, which appear at the top of each paper petition sheet and in the online petition:

1. Conflicts with the Placitas Area Plan
2. Inadequate stealth / concealment design
3. Unsatisfied co-location requirements
4. Unresolved setback deficiency (57% of required)
5. Undisclosed full build-out (three carriers)
6. Documented property value harm

I respectfully request that this petition transcription be entered into the public record on CU-26-001 and provided to the Planning and Zoning Commissioners in advance of the May 19 hearing. The underlying physical petition sheets (SCAN0036.PDF, SCAN0037.PDF) and the online signature record (signatures.pdf, with all submitted signatures) are available upon request to support audit verification of any individual entry.

I am available to answer questions regarding the transcription methodology, the cross-source deduplication standard, the jurisdiction-exclusion criteria, or the community-assignment framework.

Respectfully,

C. Edwin Garner, Ph.D.

46 Camino Barranca

Placitas, NM 87043

Attachment: Petition_Signature_Transcription_V9.docx

Petition: Opposition to Application CU-26-001

Submitted to the Sandoval County Planning & Zoning Commission — Public Record
Generated: 5/17/2026, 11:50:35 AM

Total online signatures: 94

We, the undersigned residents of Sandoval County, New Mexico, respectfully urge the Sandoval County Planning and Zoning Commission to **DENY** Application CU-26-001 for a 75-foot tower in Placitas.

#1
Dorinda F Fox
5 Prairie Lane, Placitas, NM
Signed: 2026-04-27

#2
Kyle Hollingsworth
6 Camino Chiquito, 6 Camino Chiquito, Placitas, NM
Signed: 2026-04-28

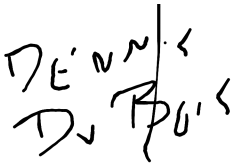
#3
Margaret Leonard
5 Trace Court, Placitas, Placitas, NM
Signed: 2026-04-28

#4
Peter Vollers
17 Tierra Madre Road, Placitas, NM
Signed: 2026-04-28

#5
Kim Vollers
17 Tierra Madre Rd, Placitas, NM
Signed: 2026-04-28

#6
Christiane Couvert
1 Acoma Trail, Placitas, NM
Signed: 2026-04-28

#7
Dennis Du Bois
5 Perdiz Canyon, Placitas, NM
Signed: 2026-04-28

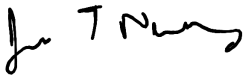


#8
Clarissa ‘Cyd’ DuBois
5 Perdiz Canyon Rd., Placitas, NM
Signed: 2026-04-28

#9
Julie DuBois
5 Perdiz Canyon Rd., Placitas, NM
Signed: 2026-04-28

#10
Gary Georgia
18 Tierra Madre Ct., Placitas, NM
Signed: 2026-04-28

#11
james ninomiya
quail meadow rd, Placitas, NM
Signed: 2026-04-28

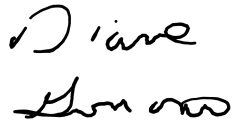


#12
Gregory Marcantel
40 Sage Hill Dr, Placitas, NM
Signed: 2026-04-28

#13
Luke Probst
152 Placitas Trails Road, Placitas, NM
Signed: 2026-04-28

#14
Laurie Schuller
26 Sandia Lane, Placitas, NM
Signed: 2026-04-28

#15
DIANE GONANO
2 Dreamcatcher Tr, Placitas, NM
Signed: 2026-04-29



#16
Winnie Maggiore
64 Camino Redondo, Placitas, NM
Signed: 2026-04-29

#17
Caroline Alexander
3 Ridge Road, Placitas, NM
Signed: 2026-04-29

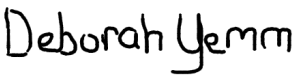
#18
Aaron Young
11 Tierra Madre Rd, Placitas, NM
Signed: 2026-04-29

#19
Zachary Lynch
700 Penny Ln, Corrales, NM
Signed: 2026-04-29

#20
Jessica Golden
276 Star Meadow Road, Placitas, NM
Signed: 2026-04-29

#21
Mindy
21 Arroyo Venada Rd, Placitas, NM
Signed: 2026-04-29

#22
Deborah Yemm
315 Camino de las Huertas, Placitas, NM
Signed: 2026-04-29



#23
Stephen Yemm
315 Camino De Las Huertas, Placitas, NM
Signed: 2026-04-30

#24
Laurie Smith Garner
2 Calle Flores W, Placitas, NM
Signed: 2026-05-01

#25
Terence Macintyre
34 Ridge Road, Placitas, NM
Signed: 2026-05-01

#26
Ms. Barbara Burzillo
46 Camino Barranca, Placitas, NM
Signed: 2026-05-02

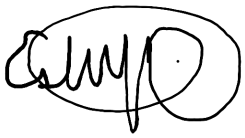
#27
Leslie Chavez
212 hwy 165, Placitas, NM
Signed: 2026-05-02

#28

Esther Verzi

140 Juniper Rd, Placitas, NM

Signed: 2026-05-03

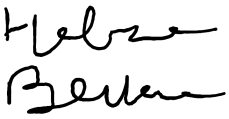


#29

Helene Berkman

11 Canoncito Rd, Placitas, NM

Signed: 2026-05-03



#30

Shery welsh

148 camino barranca, Placitas, NM

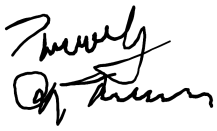
Signed: 2026-05-03

#31

Timm Mason

4 Quail Meadow Road, Placitas, NM

Signed: 2026-05-03



#32

Linda Lucero Hughes

134 HOMESTEADS RD., Placitas, New Mexico

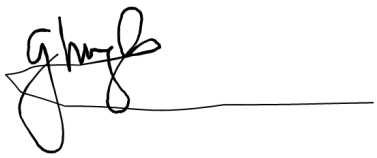
Signed: 2026-05-04

#33

Gary Hughes

134 Homesteads Rd, Placitas, New Mexico

Signed: 2026-05-04

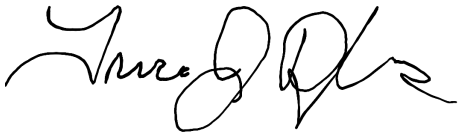


#34
Kelly A Hughes
134 Homesteads Rd, Placitas, New Mexico
Signed: 2026-05-04

#35
Susan R Melville
2 PUEBLO BONITO RD, Placitas, NM
Signed: 2026-05-04

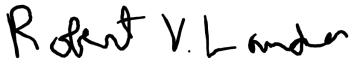
#36
Robert Martinez
111 Placitas trails rd, Placitas, NM
Signed: 2026-05-04

#37
Tricia Douglas
65 Tierra Madre Rd, Placitas, NM
Signed: 2026-05-05



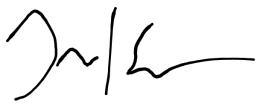
#38
Trenton Scott
65 Tierra Madre Rd., Placitas, NM
Signed: 2026-05-05

#39
Robert Lander
13 Santa Ana Loop, Placitas, NM
Signed: 2026-05-05



#40
Susan kennedy nunes
16 Horseshoe Loop, Placitas, NM
Signed: 2026-05-05

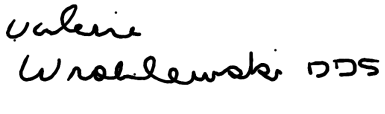
#41
Joshua Keenan
24 Camino Manzano, Placitas, NM
Signed: 2026-05-05



#42
Zachary Nunes
16 Horseshoe Loop, Placitas, NM
Signed: 2026-05-06

#43
Tom Wells
22 Camino Los Altos, Placitas, NM
Signed: 2026-05-07

#44
Valerie Wroblewski DDS
36 Calle Del Norte, Placitas, NM
Signed: 2026-05-07

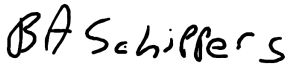


#45
Kim Wroblewski
36 Calle Del Norte, Placitas, NM
Signed: 2026-05-07

#46
SUSAN ALLISON
115 Placitas Trails Rd, Placitas, NM
Signed: 2026-05-07

#47
Jeffrey Stambaugh
15 Caminito Trail, Placitas, NM
Signed: 2026-05-07

#48
Burton Schippers
192 Camino Barranca, Placitas, NM
Signed: 2026-05-07

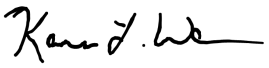


#49
Jennifer Patton
14 Puesta del Sol, Placitas, NM
Signed: 2026-05-08

#50
Dan White
25 Cerrito Rojo Road, Placitas, NM
Signed: 2026-05-08

#51
Greg Charillon
863 State Highway 165, Placitas, NM
Signed: 2026-05-08

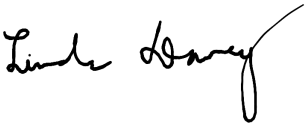
#52
Karen Woerner
11 Pottery House Trail, Placitas, NM
Signed: 2026-05-08



#53
Tina Thomas
75 Anasazi Trails Rd, Placitas, NM
Signed: 2026-05-08

#54
Robert Jewell
51 Apache Mesa Road, Placitas, NM
Signed: 2026-05-08

#55
Linda Davey
10 Calle Cacto, Placitas, NM
Signed: 2026-05-09



#56
David Schmidly
60 Homesteads Rd, Placitas, NM
Signed: 2026-05-09

David Schmidly

#57
Robert Stanley
10 TIERRA MADRE CT, Placitas, NM
Signed: 2026-05-09

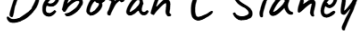
Robert Stanley

#58
Bob Burnett
27 Calle Corvo, Placitas, New Mexico
Signed: 2026-05-10

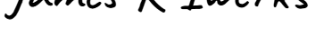
#59
Chris Moench
12 Jemez Rd, Placitas, NM
Signed: 2026-05-10

#60
Nina Lacey
36 Agua Sarca Road, Placitas, NM
Signed: 2026-05-10

#61
Deborah C Slaney
20 Casa del Norte, Placitas, NM
Signed: 2026-05-10

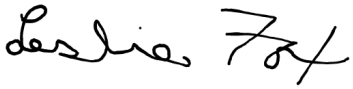


#62
James R Iwerks
20 Casa del Norte, Placitas, NM
Signed: 2026-05-10



#63
David and Darri Harrison
52 quail meadow road, Placitas, NM
Signed: 2026-05-10

#64
Leslie Fox
6 Sandy Ln, Placitas, NM
Signed: 2026-05-10



#65
Robert Murray
81 Quail Meadow Road, Placitas, NM
Signed: 2026-05-10

#66
Colleen Rieder
1 al pie de la loma, Placitas, NM
Signed: 2026-05-11

#67
Aulia Gies
2 Cabezon Rd, Placitas, NM
Signed: 2026-05-11

#68
MJ Sams
121 Forest Lane, Placitas, NM
Signed: 2026-05-11

#69
James Sams
121 Forest Lane, Placitas, NM
Signed: 2026-05-11

#70
Brenda Krum
2 Windmill Court, Placitas, NM
Signed: 2026-05-11

#71
Thomas Leland Martin
6 Morning Star Court, Placitas, NM
Signed: 2026-05-11

Thomas Leland Martin

#72
Lucinda V Fairfield
4 Agua Sarca Road, Placitas, NM
Signed: 2026-05-11

Lucinda V Fairfield

#73
Gerald Van Slambrook
4 Agua Sarca Road, Placitas, NM
Signed: 2026-05-11

Gerald Van Slambrook

#74
Anne Wiese
5 Trigo Road, Placitas, NM, USA, Placitas, NM
Signed: 2026-05-11

Anne Wiese

#75
Beverly A. Ledbetter
82 Placitas Trails Road, Placitas, NM
Signed: 2026-05-11

Beverly A. Ledbetter

#76
Jana Reynolds
18 Homesteads Rd, Placitas, NM
Signed: 2026-05-11

#77
Lynn Hartenberger
8 Homesteads Road, Placitas, NM
Signed: 2026-05-11

#78
Jon Hartenberger
8 Homesteads Road,Placitas 87043, Placitas, NM
Signed: 2026-05-11

Jon Hartenberger

#79
Roberta P Gabaldon
28 Tierra Madre Rd, Placitas, NM
Signed: 2026-05-11

Roberta P Gabaldon

#80
Derek Duszynski
76 Homesteads Rd, Placitas, NM
Signed: 2026-05-12

Derek Duszynski

#81
DOROTHY NOE
38 VISTA MONTANA LOOP, Placitas, New Mexico
Signed: 2026-05-12

DOROTHY NOE

#82
Dawn Nakamura-Kessler
3 Bison Ct, Placitas, NM
Signed: 2026-05-12

#83
Leonard Hardgrave
6 Morning Star Ct., Placitas, NM
Signed: 2026-05-13

Leonard Hardgrave

#84
michelle manning
31 tunnel springs road, Placitas, NM
Signed: 2026-05-13

michelle manning

#85
david pitts
31 tunnel springs road, Placitas, NM
Signed: 2026-05-13

david pitts

#86
Morgan Smtih
4 Calle Montoya, Placitas, NM
Signed: 2026-05-13

Morgan F. Smith, DC

#87
Daniel Powers
52 Camino de Las Brisas, Placitas, NM
Signed: 2026-05-13

#88
Vicki Greenwood
325 Purple Aster Road, Placitas, NM
Signed: 2026-05-14

Vicki Greenwood

#89
Heidi Kugler
13 Sage Hill Drive, Placitas, NM
Signed: 2026-05-14

#90
Judith Nina Katz
1 Cielo Grande Dr, Placitas, NM
Signed: 2026-05-14

Judith Nina Katz

#91
Dianna Noriega
11 Apache Mesa Rd, Placitas, NM
Signed: 2026-05-15

Dianna Noriega

#92
Jonathan Williams
3 Trails Rd W, Placitas, NM
Signed: 2026-05-16

Jonathan Williams

#93
Matthew Evanko
38 Anasazi Trails Loop, Placitas, NM
Signed: 2026-05-16

Matthew Evanko

#94

Carl M Koop

171 Camino Barranca, Placitas, New Mexico

Signed: 2026-05-17

Carl Koop

From: Phyllis Knight
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 11:40:28 AM

Re: Application CU-26-001

Dear Commissioners,

Half a mile from where I sit writing this, there is a vacant lot that Verizon wants to put a 75-foot tower on. I have lived in Placitas for more than 30 years, and what strikes me most about this proposal is how directly it conflicts with every reason my family chose this place.

The view toward the Sandias from our property is something we think about every day. I am not certain the tower would be visible from our house, but at 75 feet — taller than anything else for miles in open desert terrain — the odds are not comforting. More certain is what everyone driving into Placitas will see: the tower rising directly above Homestead Plaza, the gateway to Placitas, where our neighbors gather for dinner on outdoor patios and summer concerts. The restaurant seating sits immediately below where this structure would stand. That's not a view any of us are expecting to look up at over a meal. The plan our community spent years developing with the County was written exactly to protect that kind of place and that kind of experience — and this application doesn't engage with either.

As a T-Mobile customer, I have excellent coverage in Placitas. The technology delivering it is small antennas on existing infrastructure — not a new tower. That is the alternative the application doesn't address. The County's rules ask the applicant to look at existing towers AND other suitable structures within four miles — utility poles, building facades, anything that could host a small antenna — and to conclusively show why none of those work. What the application offers instead is a slide deck listing nearby cell towers. The County's rules also prioritize tower siting in a specific order, with County-owned land ranked near the top and residential-zoned areas listed last. The applicant tried the Fire Station first, the parties couldn't come to terms on a lease, and the applicant ended up at a lot in a residential area — the lowest priority on the County's list — without any apparent walk-through of what fell between number 2 and number 6 on that list. That is exactly the pattern the County's rules were written to prevent.

Beyond what I can see from my property, I worry about what this does to the value of homes in our neighborhood. We chose Placitas for what it looks like, sounds like, and feels like. Buyers who come after us will make the same calculation, and a 75-foot industrial tower visible across the area changes that calculation for everyone.

Please deny this application.

Sincerely,

Phyllis Knight
53 HOMESTEADS RD
Placitas, NM

From: R Trigg
To: Planning and Zoning Main
Subject: Letter re: Application CU-26-001
Date: Saturday, May 16, 2026 11:35:07 AM
Attachments: Outlook-sooqqkpd.png

Dear Commissioners,

We bought Lot 44 in Anasazi Trails in the early 2000's specifically for the views. Large south and east facing windows were specified in the house we designed and built. Between the architect and the builder, it took four years to create our home. One of our reasons for moving to Placitas was the benefit of covenants that control the community. One example is down-facing outdoor lights. The Placitas night sky is beautiful to behold due to this seemingly minor covenant that was established by the Placitas community to enhance the natural environment of this area.

Below is a photo of a cumulus cloud at sunset in Placitas. While this doesn't happen every day, it is not unusual to see such a scene. The proposed tower would be 75 feet high with an 18 foot diameter shroud at the top; the shroud would definitely draw the eye to the structure. A building 75 feet high would be the height of a 7-10 story building. Would a 7 to 10 story observation tower be something that would ever be approved by Placitas?

I'll leave the legal arguments to the lawyers among us. But, I've heard that if the tower is approved, future modifications would not require Planning and Zoning Commission approval. The height of the tower could be extended with absolutely no oversight of the future modification. As a businessman, that is concerning to me. Might the tower be converted into a regional communications hub with power generators, buildings, etc.? In the Anasazi Trails subdivision, we have an Architectural Control Committee (ACC) that rules on what a homeowner can put on their roof, the exterior color of the house, fencing, basically anything

that is visible from the street level. Furthermore, any future changes like stucco color, fencing type and color, require another approval from the ACC. This keeps our subdivision the way it was originally envisioned and protects the resale value of homeowner investment in the Placitas community. The Anasazi Trails ACC provides oversight for our subdivision somewhat comparable to what the Planning and Zoning Commission does for Sandoval County. I hope the opinions of the existing Placitas homeowners carry weight with the Commission.

Please deny this application.

Ralph and Gwen Trigg
4 Maize Trail
Placitas, NM 87043
r_trigg@msn.com
505-263-2459

COMMUNITY PETITION

Opposition to Proposed 75-Foot Commercial Wireless Monopole

Sandoval County Case No. CU-26-001 | 221 NM-165, Placitas, New Mexico

We, the undersigned residents of Placitas, New Mexico, respectfully urge the Sandoval County Planning and Zoning Commission to DENY this application on the following grounds:

1. Conflicts with the Placitas Area Plan	**4. Unresolved setback deficiency (57% of required)**
2. Inadequate stealth/concealment design	**5. Undisclosed full build-out (3 carriers)**
3. Unsatisfied co-location requirements	**6. Documented property value harm**

Printed Name	Street Address, Placitas NM	Signature	Date
Nancy Lamwell	1 San Jose Trl	N Lamwell	4-28-2026
Jacob Nelson	38 Sage Hill		5/7/26
WAYNE NIKOLAS	11 ARROYO COYOTES		5/7/26
Patricia Parker	25 Sierra Mesa Ct		5/7/26
Ralph Triggs	4 Maize Trail	R Triggs	5/7/26
Janis Hirsh	9 Calle la Paz Placitas		5/7/26
Lorraine Hirsh	9 Calle la Paz Placitas	Lorraine Hirsh	5/7/26
Ron Natvig	9 Calle la Paz Placitas		5/7/26
David Lisak	42 Agua Sarca		"
Claire Aarwell	"		"
Herb Koffler	41 Agua Sarca	H Koffler	5/7/26
Shirley Koffler	" "	Shirley Koffler	"
Sweeney	30 Mimbres Ct		5-7-26
Barrett	173 Camino Barranca	K Barrett	5-7-26
Tim + Laurie O'Rourke	6 Canon del Apache	Tim O'Rourke	5/7/26
Lynn + Jon Hartenberger	8 Homesteads Rd		5/7/26
Tamara Hartenberger	13 Homesteads Rd		5/7/26

COMMUNITY PETITION

Opposition to Proposed 75-Foot Commercial Wireless Monopole

Sandoval County Case No. CU-26-001 | 221 NM-165, Placitas, New Mexico

We, the undersigned residents of Placitas, New Mexico, respectfully urge the Sandoval County Planning and Zoning Commission to DENY this application on the following grounds:

1. Conflicts with the Placitas Area Plan	**4. Unresolved setback deficiency (57% of required)**
2. Inadequate stealth/concealment design	**5. Undisclosed full build-out (3 carriers)**
3. Unsatisfied co-location requirements	**6. Documented property value harm**

Printed Name	Street Address, Placitas NM	Signature	Date
YOUR NAME!	Address	Signature	Date
Ann M Lynch	50 CAMINO BARRANCA	Ann M Lynch	April 30, 2026
JOAN FENICLE	889 NM-165	Joan Fenicle	4-30-26
Barbara Kratochwill	3 Aspen Ct	Barbara Kratochwill	4/30/26
Dale Quintana	3 Aspen Ct.		4/30/26
BARRY BUNN	141 CAMINO BARRANCA		7 May 26
Edward Lawrence	11 Apache Mesa Rd		5/7/26
Michael Wade	150 Camino de la Rosa Castilla		5.7.26
Catherine Lane Feldt	32 Placetas W Rd	Catherine Lane Feldt	5-7-26
Phyllis Knight	53 Homestead Trl	Phyllis W Knight	"
Erin Reynolds	38 Sage Hill Dr.		07 May 2026
Sondra Rolater	14 Nighthawk Ct	Sondra Rolater	
Marian Pace	14 Nighthawk Ct	Marian Pace	5/7/26
Cindy Langlois	4 Moon Shadow Ct	Cindy Langlois	07 May 2026
GREG SPERR	17 TRAILS RD E		5/7/26
GAIL SPERR	" "	Gail Sperr	5/7/26

Printed Name	Street Address, Placitas NM	Signature	Date
Patricia Vogt	1 Calle Rosa	Patricia Vogt	5-7-26
Wolfgang Vogt	1 Calle Rosa	W. Vogt	5-7-26
DHARA PEGG	2 TRIGO ROAD	Dhara Pegg	5.7.26
Doris Murphy Mike Murphy	7 Calle Pinon		5-7-26
[illegible]	110 Buffalo Ridge Ct		5/7/26
James Verzi	140 Juniper Rd		5/7/26
Ron Lacey	36 Agua Sarca Rd	Ron Lacey	5/7/26
Nina Lacey	36 Agua Sarca Rd	Nina Lacey	5/7/26
Debby Brown	110 Buffalo Ridge Ct.	Debby Brown	5/7/26
Juanita Brown	" " "	Juanita Brown	5/7/26
Maria Lucero Padilla	5 Camino Conejo	Maria Padilla	5/7/26
Esther Verzi	140 Juniper Rd	Esther Verzi	5/7/26
Steve Verzi	4 Camino De La Cuesta Del Aire	[illegible]	5/7/26
Gena Padilla	5 Camino Conejo	[illegible]	5/7/26
Sally Gurley	150 Juniper Rd	Sally Gurley	5/7/26
Kent Gurley	150 Juniper Rd.	Kent Gurley	5/7/26
Leslie [illegible]	6 Sandia Ct		
Glenda Young	7 Cerco Circle	Glenda Young	5/7/26
David Agee	" " Placitas	David Agee	5-7-26
Juliet Green	7 First Mesa Ct	Juliet Green	5/7/26
Sara Livingston	77 Overlook Drive	S. Livingston	5/7/26
CATHERINE Grantham	40 SANDIA CAVE	C. Grantham	5/7/26

Printed Name	Street Address, Placitas NM	Signature	Date
Christopher Huntsman	2 Hillside Dr Placitas		5/7/2026
Sylvie ALAN	863 NM 165		5/7/26
[illegible]	#151 X RANGE POINT RD		5-7-26
Marta Lucas	4 Puerta del Sol	Marta Lucas	5.7.26
Nancy Steffen	4 Gila Court	Nancy Steffen	5-7-26
Marty Griffin	4 Gila Ct.	Marty Griffin	5-7-26

COMMUNITY PETITION

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Printed Name	Street Address, Placitas NM	Signature	Date
VICTORIA LASKEN	6 EVERGREEN DR PLACITAS		4.17.26
SCOTT LASKEN	6 EVERGREEN DR, PLACITAS NM 87043		4-17-26
Kathleen Suydam	3 Six Range Pt Placitas, NM		05-07/26
GREG CHAZILLON	863 NM/65		05/07/26
DORIS FIELDS	96 Vista Montana Loop Placitas, NM 87043		05/07/2026

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COMMUNITY PETITION

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Printed Name	Street Address, Placitas NM	Signature	Date
VALERIE WROBLEWSKI	36 Calle Del NORTE 87043	Valerie Wroblewski	4-9-26
Kim Wroblewski	36 Calle Del NORTE 87043	Kim Wroblewski	4-9-26
Julie Gonzales	6 Pinon Ridge Dr 87043	Julie Gonzales	4-9-26

COMMUNITY PETITION

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Printed Name	Street Address, Placitas NM	Signature	Date
Edith Garner	46 Camino Barranca		4/15/2026
BARBARA BUZZILLO	46 CAMINO BARRANCA		4/15/2026
CHAD McDANIEL	27 CAMINO BARRANCA		4/15/2026
Judith Ungaro	39 Camino Barranca		4/15/2026
Keith Ungaro	39 Camino Barranca		4/15/26
Barbara Otter	1 Calle Ponderosa,		4/15/26
Sasha Von Hanna	9 Calle Ponderosa		4/15/26
Cheryl Block	77 Camino Barranca		4/15/2026
TINA THOMAS	75 Arroyo Jewels		4/15/2026
LEE WHALEY	201 CAMINO BARRANCA		4/15/2026
FELICIA FINSTON	201 CAMINO BARRANCA		4/15/2026
DIANE H SHEPARD	98 Camino Barranca		4/16/26
D.H. OTTER	1 CALLE PONDEROSA		4/16/26
BRIAN SCHMIDLY	53 CALLE CHAMISA		4/16/26
MARILYN ROHA	108 CAMINO BARRANCA		4/16/26

COMMUNITY PETITION

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Printed Name	Street Address, Placitas NM	Signature	Date
J. Diane Galbraith	5 Bison Court, Placitas NM 87043	J. Diane Galbraith	4-10-2026
Sylvia Lake	4 Bison Ct, Placitas NM 87043	Sylvia Lake	4-11-2026
MICHAEL ELY	4 BISON CT PLACITAS NM	Michael J Ely	4/11/2026
NANCY Holley	103 N. Forest Dr. 87043	N. Holley	4/16/2026
Odelia Brown	110 Buffalo Ridge Ct.	Odelia Brown	4/16/2026.
Bob O'Malia	36 Sandia Loop		4/16/26
Linda Weisband	15 Caminito Tr. Placitas NM 87043	Linda E Weisband	4/16/26
DANA P ROTH	14 PERDIZ CANYON RD PLACITAS	Dana P Roth	4/16/26

COMMUNITY PETITION

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Printed Name	Street Address, Placitas NM	Signature	Date
Edwin MACY	26 CAMINO A LAS ESTRELLAS		15 APR 26
Roberta Gabaldon	12 Strahl Ave Placitas		4/15/26
Paul Gabaldon	12 Strahl Ave Placitas		4/15/26
Meg Leonard	5 Trace Ct.		4/15/26
B Zimmerman	32 Arroyo Ensenada Rd		4/15/26
P. Roberts	40 Camino del Tecolote Placitas NM		4/15/26
B Berkman	11 Cañoncito Rd		4/15/26
C Roark	22 Frost Mesa Ct.		4/15/26
Connie Gabaldon	1126 Calle Sabelena		4/15/26
OLIVIA SAIZ	12 Ne Casa Nueva Ct		4/15/26
ELIZABETH OWENS	11 STRAHL AVE		4/15/26
Andi Callahan	4 Calle Rosa		4/15/26
Andrew Beishline	45 Calle Del Norte		4/15/26
Cambrie Beishline	45 Calle del Norte		4/15/26
David Lisak	42 Agua Sarca Rd.		4/15/26
Wendy Cordova	1594 South Hill Rd		4/15/26

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COMMUNITY PETITION

Opposition to Proposed 75-Foot Commercial Wireless Monopole

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Printed Name	Street Address, Placitas NM	Signature	Date
JErry Cordova	1594 S. Mill Rd	[illegible]	4-15-2026
TERRY MARINTYRE	34 RIDGE RD	[illegible]	4-15-2026
Ralph H. Clark	23 Tierra Madre Rd	[illegible]	4-15-2026
ERIAN WEDDER	34 RIDGE RD	[illegible]	4-15-26

COMMUNITY PETITION

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Printed Name	Street Address, Placitas NM	Signature	Date
Richard Chabot	99 Camino Barranca	Richard Chabot	4-21/26
Pamela Walker	99 Camino Barranca	Pamela Walker	4-21/26
Heather Booth	350 Cam de la Rosa Castilla	H. Booth	4.22.26
DON ROSNER	4 CALLE FLORES W.	DE Rosner	4-22-26
PATRICIA H LEWIS	#1 SIX RANGE POINT RD PLACITAS	Patricia H Lewis	4-22-26

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COMMUNITY PETITION

Opposition to Proposed 75-Foot Commercial Wireless Monopole

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Printed Name	Street Address, Placitas NM	Signature	Date
PETER VOLLERS	17 TIERRA MADRE RD PLACITAS		4/10/26
KIM VOLLERS	" "	Kimm R Vollers	4/10/26
SANDRA RANDEL	5 Calle Cacto "	Sandra Randel	4/10/26
Jacob Nelson	38 Sage Hill		4/9/26
Aaron Young	11 Tierra Madre Rd		4/10/2026
LOU GARCIA	37 SAGE HILL DR		4/10/2026
JOHN FLAHERTY	33 SAGE HILL DR		4/10/26
PAMELA CRISCUOLO	72 ANASAZI TRL RD	Pamela Criscuolo	4/11/26
Barbara Reeback	40 Tierra Madre		4/11/26
Gerald Van Slambrook	4 Agua Sarca Rd		4/11/26
Margit Gerecke	34 Homestead Rd		4-11-26
GARY GRIZZO	" "		4-11-26
SEAN LAKASH	16 Tierra Madre Ct		4-11-26
AMANDA ESTRADA	37 agua Sarca		4/11/26
Michele Koffler	41 Agua Sarca		4/11/26
HERB KOFFLER	41 Agua Sarca		4/11/26
Carly Wall	9 Calle del Arroyo		4/12/26

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Printed Name	Street Address, Placitas NM	Signature	Date
Rich Abitz	24 Tierra Madre Rd		4/11/2026
JACK GARLAND	15 Tierra Madre CT		4/11/2026
JOE GILBERT	48 AGUA CARGA RD		4-11-26
Ron Turner	70 Tierra Madre Rd		4/11/26
M Claire Harned	42 Agua Sarca		4/11/26
David Lisak	42 Agua Sarca		4/11/26
Teresa Ziemek	11 Tierra Madre Rd		4/11/26
ROSS ISAACSON	6 TIERRA MADRE CT		4/11/26
Joseph ESPINOZA	22 TIERRA MADRE RD		4/11/26
Julie SCHICK	44 AGUA SARCA Rd		4/11/26
Ron Lacey	36 Agua Sarca Rd		4/12/26
Nina Lacey	36 Agua Sarca Rd		4/12/26
Genaro/María Padilla	5 Cabrita Conejo		4/12/26

Reps	Neighborhood	phone / email / site ✓
Caroline Alexander	Placitas West	
Peter Vollers	Tierra Madre	802-291-2419 pvollers@vollerslaw.com
Silvia Martins	Tierra Madre	408-731-0456
Paul Gabaldon	12 Strahl Ave	505-250-2608
Roberta Gabaldon	12 Strahl Ave	505-980-5099
Marc Snow	6 Strahl Ave	972-948-3998
Christina Snow	6 Strahl Ave	972-989-9227
Valerie Wroblewski President@Placitashomesteads.com	Placitas Homesteads	505-550-8181

@gmail.com

Cathryn Campbell 23 Sage Hill Drive
505-803-7101

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COMMUNITY PETITION

Opposition to Proposed 75-Foot Commercial Wireless Monopole

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Printed Name	Street Address, Placitas NM	Signature	Date
CAROLINE ALEXANDER	3 RIDGE RD	C. L. S. Alexander	4/9/26
Robertson Boss	3 Ridge RD		4/9/26
Sue Rovyansky	6 Sandy LN	Sue Rovyansky	4/9/26
Anne Frost	96 Vista Montaña Loop		4/9/26
Doris Fields	96 Vista Montaña Loop		04/09/2026
Bunny Bowen	8 Ridge Rd	Dorothy B. Bowen	04/09/2026
LELAND H. BOWEN	8 RIDGE RD		4/9/26

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Printed Name	Street Address, Placitas NM	Signature	Date
Print Name!	Address!!	Sign!!	DATE!!
Jody MacGillivray	30 Agua Sarca Rd	[illegible]	April 26, 2026
Andrew MacGillivray	30 Agua Sarca Rd	[illegible]	Apr 26, 2026
Christina Snow	6 [illegible] Ave	[illegible]	4-27-26

COMMUNITY PETITION

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Printed Name	Street Address, Placitas NM	Signature	Date
Sign Here	Address Here	Signature	Date
VALPURI REMLING	66 TIERRA MADRE RD		4/23/26
taylor KUBIN	11B PLACITAS TRLS RD	TR	4/24/26
Leslie Chaves	212 165 Hwy		4/26/26
George Chaves	212 NM 165		4/26/26
ROBERT UPHAM	206-503-4753		4/26/26
Lauri Ann	360-584-5633	Lauri Ann	4/28/26

COMMUNITY PETITION

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Printed Name	Street Address, Placitas NM	Signature	Date
Melissa Gabaldon	12 Strahl Ave, Placitas, NM		4/28/26 (hair)
J. Leonard Martinez	267 S. 8th St. Pagosa Spgs CO		4-29-26
Kimberly Martinez	267 S. 8th St. Pagosa Spgs Colorado		4-29-2026
Richard C. Chavez	906 15th NW, Alb. NM		4-29-26
Mike Kloeppel	127 W. Calle Don Francisco Bernalillo		5/1/26
Camille R Kloeppel	127 Calle Don Francisco Bernalillo		5/1/26
DARRE W SMITH	1110 EASTERDAY DR. NE		5-4-26
Adam Baca	6407 Thunderbird Cir NW		5-9-26
Guadalupe Herrera	6716 La Rocca Rd NW		5/9-26
Jesse Herrera	4800 Sandpoint Rd NW		5.9.26
Emily Herrera	6021 Menaul Blvd		5/9/26
Amanda Herrera	12 STRAHL AVE Placitas, NM 87043		5/9/26

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Printed Name	Street Address, Placitas NM	Signature	Date
[redacted]			
YOUR NAME!	ADDRESS !!	Signature!	DATE
Mike Mahoric	76 Tierra Madre Rd		5/1/26
LAURA ISAACSON	6 TIERRA MADRE CT.		5/8/26
Vicky Kimmel	13 Mimbres ct		5/9/26
HEATHER VALENZUELA	101 CAMINO BARRANCA		5/9/26
Azari	8 CHOLLA PLACITAS 87043		5/10/26
Katy Eagan	42 Sage Hill Dr. 87043		5/14/26
Rhonda Mauldin	16 Calle Colores 87043		5/14/26

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Printed Name	Street Address, Placitas NM	Signature	Date
David DaPolito	159 Camino Vina Virja		4-18-26

From: sondi13@yahoo.com
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Monday, May 18, 2026 11:57:32 AM

Re: Application CU-26-001

Dear Commissioners,

One year ago I moved to Placitas to live out a lifelong dream — to spend my days in a genuinely beautiful place. That's not a casual choice I can relocate. It's the reason I'm writing.

The site-selection record here doesn't hold up. The County's own priority order puts residential areas last — the least preferred category the rules recognize for tower siting. The applicant started at the Fire Station, which ranks far higher, and when the lease talks fell apart, they ended up at a vacant lot in a residential area with nothing in the materials showing what was considered in between. The rules are explicit that a failed lease negotiation is not an acceptable reason to skip the remaining priorities. There's also a separate path the application ignores entirely: small cells, the low-profile antennas mounted on existing poles and building facades that already deliver better service across Placitas without any new tower. The County's rules require the applicant to survey existing towers *and other suitable structures* within four miles. That language reaches utility poles, streetlights, and building facades — exactly the infrastructure small cells use. The application never looks at any of it.

On coverage: the applicant's own analysis maps show the proposed footprint doesn't meaningfully reach most of Placitas — it largely serves the area west toward I-25. My understanding from reviewing the materials is that what's mostly inside that footprint is a gravel pit and open space, not the neighborhoods the proposal is being justified to help. That doesn't match the claim that this tower serves our community.

Homestead Plaza, right next to the proposed site, is where many of us actually spend time together — the community market, the restaurant with outdoor seating, outdoor concerts on warm evenings. The restaurant patio would sit directly under this tower. Whatever the stealth design accomplishes visually at a distance, it doesn't change what it's like to eat dinner underneath a 75-foot structure with mechanical equipment running at its base. And when I think about what this does to the value of my home and my neighbors' homes — we all made real choices to live in this specific place — that's a harm the applicant hasn't addressed.

The application also doesn't include the FAA evaluation the rules require to establish whether any lighting is needed at this height, and it treats this parcel's zoning as plain CD-WP without ever engaging with the more specific rules the County attached when it zoned this lot for a shopping center. Compliance with those conditions is unverified, and the burden to establish it belongs to the applicant.

I am asking the Commission to deny this application.

Sincerely,

Sondra Rolater
14 Nighthawk Ct.
Placitas, NM

From: susanonbainbridge@icloud.com
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 4:05:19 PM

Re: Application CU-26-001

Dear Commissioners,

I chose Placitas one year ago, deliberately. The open desert scale, the low-profile built environment, the sense that the community had decided what it wanted to be — all of that mattered to me. This application would put a 75-foot structure at the corner where I turn toward home, and it would be there every day, permanently. I am asking you to deny it.

The site-selection record is the part of this application I find hardest to square with what the County's own rules require. The County's priority order puts County-owned properties near the top and areas zoned for residential use last — sixth of six. The applicant started at the Fire Station, second on that list, and when those lease negotiations didn't come together, they ended up at a vacant lot in a residential-zoned area. The application offers a single sentence to explain everything in between. That sentence doesn't name any alternative sites, doesn't explain what was looked at among the middle priorities, and doesn't address the multiple existing towers already within a few miles that sit at priority one. The County's rules specifically bar an applicant from skipping higher-priority sites on the grounds that the proposed location was the only one it could lease — and that is precisely what happened here. Beyond the tower-to-tower question, the rules ask for an inventory of "other suitable structures" within four miles: utility poles, building facades, streetlights, rooftops. The carrier with observably better coverage across Placitas delivers it through small antennas on existing infrastructure. The application is silent on why that path isn't the answer here, and the applicant has the burden to show it isn't.

The application also carries a problem rooted in the parcel's specific zoning history. When the County zoned this lot, it did so for a shopping center and attached a set of binding development conditions. The application describes the zoning as plain CD-WP and never engages with those parcel-specific conditions. The proposed eight-foot coyote fence screens the ground equipment — that's stated plainly in the materials — but a fence that height does nothing about the tower standing above it, which is what every driver on NM-165 and every neighbor on three sides will see. The RF compliance report is internally labeled with a California site name and uses rooftop-analysis language. It is unclear if it was even prepared for this location. The application also doesn't include the FAA evaluation that would establish whether any lighting is required at this height, so what's actually planned for the tower after dark remains unresolved. The applicant has the burden to demonstrate this information and the record doesn't reflect this information.

One thing the application makes clear: the lease compound was placed in the southwest corner of a four-acre parcel because the property owner wanted to preserve the rest for retail development. That is the property owner's preference, not a technical or hardship-based reason. And once a tower is approved here, federal rules require the County to approve a defined band of future modifications — co-location, equipment swaps, add-ons within certain size limits — without the public process we are going through now. The conditions set at this hearing are the conditions that travel with the tower. Given what has and has not been demonstrated in the materials filed, I do not think the Commission has the record it needs to make this decision responsibly.

Please deny this application.

Sincerely,

SUSAN ALLISON
115 Placitas Trails Rd
Placitas, NM

Sent from my iPad

This message is originated from an external organization

From: susanonbainbridge@icloud.com
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 4:13:24 PM

Re: Application CU-26-001

Dear Commissioners,

I have lived in Placitas for 1 year — long enough to understand what I chose when I moved here, and long enough to see what this proposal would take from it.

The site-selection record is the part of this application that doesn't make sense. The County's rules establish a clear priority order for where new towers should go, with County-owned properties near the top and areas zoned for residential use at the very bottom. The applicant tried the County Fire Station — second on that list — and when that deal didn't come together, they settled on a vacant lot in a residential area, the least preferred category the County's rules recognize. The application offers one sentence explaining why, with no account of what was looked at between priority 2 and priority 6. The County's rules also prohibit an applicant from bypassing higher-priority sites by saying the proposed location is the only site they could lease — and that is precisely the record presented here. Beyond the tower-to-tower question, the County's inventory rule reaches "other suitable structures" within four miles: utility poles, building facades, streetlights, rooftops. The carrier with observably better service in Placitas delivers it through small antennas on existing infrastructure. This application says nothing about why that path isn't the answer here, and the County's rules put the burden of demonstrating that on the applicant.

There is also the matter of the site's specific zoning history. The County adopted a binding set of development conditions for this parcel when it zoned it for a shopping center. The application describes the zoning as plain CD-WP and never engages with those parcel-specific conditions. The proposed eight-foot coyote fence screens the ground equipment — but a fence that height does nothing about the 75-foot tower standing above it, which is what drivers on NM-165 and residents on three sides will look at every day. "Stealth design" changes the shape of a tower. At 75 feet in open desert terrain, surrounded by single-story homes at the gateway to Placitas, it does not change the visual fact.

The placement was driven by what the property owner preferred for future retail development, not by technical hardship or careful review of the County's priorities. That is the wrong basis for a decision that, once made, will be very difficult to undo — federal rules guarantee the County will have to approve certain future modifications without the process we're going through now. This hearing is when the conditions get locked in.

Please deny this application.

Sincerely,

SUSAN ALLISON
115 Placitas Trails Rd
Placitas, NM

Sent from my iPad

From: susanonbainbridge@icloud.com
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Saturday, May 16, 2026 5:07:18 PM

Re: Application CU-26-001

Dear Commissioners,

I have lived in my current Placitas home for 1 year — not long by local standards, but also lived in Placitas from 2013-2015. My reasons to live here not once, but twice, is a testament to the beauty of this place and why I am here now. This proposal destroys everything that is special about Placitas. Every time I drive along NM-165 coming home, the open desert and the low rooflines of this community tell me I made the right choice. The 75 foot proposed eye sore of a tower would be the first thing I see instead, as well as every car that drives into our beautiful village.

The site-selection record is puzzling. The County's priority order for tower placement puts County-owned property near the top of the list and residential-zoned areas at the very bottom — sixth of six. The applicant tried the Fire Station first. When the lease couldn't be worked out, they settled on a vacant lot in a residential area, skipping over four priority categories without walking through what was considered in between. The rules the County adopted to protect this area explicitly say that failing to secure a lease at a higher-priority site is not, by itself, a sufficient reason to skip ahead. And the application doesn't include the actual written correspondence with the owners of nearby existing towers — the requests sent, the responses received, the rejection reasons — that the rules require. I see a slide deck; I don't see the documentation. Small cells on existing poles, building facades, and other structures aren't addressed at all, even though the County's inventory rule reaches exactly that kind of infrastructure. The carrier with the best service in Placitas already delivers it through small cells on existing structures. The application doesn't say why Verizon's answer has to be a 75-foot tower instead.

The application also treats this parcel as plain CD-WP zoning without engaging with the specific binding conditions the County attached when it zoned this lot for a shopping center. Those conditions — screening from the highway and from neighboring residential properties, landscaping requirements, and others — deserve a direct response, not silence. An 8-foot fence around the ground equipment doesn't screen a 75-foot tower visible from homes and the road on three sides. The application also doesn't include the FAA evaluation that would establish whether any lighting is required at this height. That document belongs in the record.

As for property values: they will be permanently reduced. When the time comes to sell, buyers will see what I see coming home each day. No one moves to Placitas to see a 75 foot tower on their peaceful drive home. That changes the calculation for everyone in this part of Placitas.

Please do the right thing and deny this application.

Sincerely,

SUSAN ALLISON
115 Placitas Trails Rd
Placitas, NM

Sent from my iPad

From: Tamara Hartenberger
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Sunday, May 17, 2026 8:43:05 PM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

I have lived in Placitas for over 15 years, and long before that — from the time I was eight years old — this was the place my family came home to. The open sky here, the unbroken desert views, the sense that this is genuinely different from anywhere else in the valley: these are not incidental features of living in Placitas. They are what Placitas is. The thought of looking out my bedroom window each morning, or sitting on my back patio in the evenings, and seeing a 75-foot industrial tower to the south is not something I can set aside as a minor inconvenience.

On summer evenings, my neighbors and I gather at Homestead Plaza — the gateway to Placitas — for outdoor concerts, dinner on the patio, time with people we know. The restaurant's outdoor seating sits directly where the shadow of this tower would fall. The County is supposed to find that a proposed use preserves the character of the area. The character of that block is the place we go to be together. A 75-foot monopole standing over it does not preserve anything — it changes the experience of being there every single time. And from what I've read about property values near visible towers, the impact doesn't stop at Homestead Plaza: homes across the community, including my own, would carry that cost in ways that show up when it's time to sell.

The thing I keep coming back to on site selection is the gap between where the applicant started and where they ended up. The County's rules rank site types in order of preference, with County-owned property near the top and residential areas at the very bottom. The applicant tried the Fire Station — number two on that list — and when they couldn't agree on lease terms, they landed on a lot in a residential-zoned area, the last category on the list. The application doesn't walk through what was considered between number two and number six. And a failed lease negotiation is precisely the justification the County's own rules say is not a sufficient reason to skip over the rest. There is also an alternative the application says nothing about: small antennas mounted on existing utility poles, building facades, and other infrastructure across Placitas. The carrier with the best service in this community delivers it that way — without any new tower. The County's rules ask for an inventory of existing towers and other suitable structures within four miles. What was filed is a slide deck. That is not the same thing, and it is not enough.

I am asking the Commission to deny this application.

Sincerely,

Tamara Hartenberger
13 Homesteads Road Placitas, NM 87043
Placitas, NM

TECHNICAL MEMORANDUM

RSRP Propagation Map Analysis and Coverage Impact Synthesis

CU-26-001 — Proposed 75-ft Monopole at 221 NM-165, Placitas, NM

To:	Sandoval County Planning & Zoning Commission; Doraida Arias, Interim Director, Planning & Zoning
From:	C. Edwin Garner, Ph.D., 46 Camino Barranca, Placitas, NM 87043
Date:	May 4, 2026
Re:	Detailed analysis of the applicant's RSRP propagation maps (Current Coverage vs. Proposed Coverage) and integration with prior coverage-claim and viewshed analyses on the CU-26-001 record
Status:	Supplement and addendum to Technical Memorandum — Coverage Claims Analysis V2 (May 1, 2026)

1. Executive summary

This memorandum addresses a specific evidentiary element of the applicant's coverage demonstration that warrants its own treatment: the two propagation prediction maps the applicant has submitted as the principal visual claim of coverage benefit. These are the slides labeled "RSRP — Current Coverage" and "RSRP — Proposed Coverage" generated by the applicant's consultant. Together they are presented to the Commission as proof that the proposed monopole materially expands cellular service in the area.

On technical examination, the two maps do not establish an actual increase in cellular coverage in any meaningful engineering sense. They establish, at most, that within an applicant-defined target ellipse the proposed tower delivers stronger downlink reference-signal power than what is presently available. Whether stronger reference-signal power within an area that already has cellular service constitutes a "coverage increase" depends entirely on which definition of coverage the Commission applies. Under the engineering definition used by the Federal Communications Commission and the Telecommunications Act §332/§704 framework — the existence of usable carrier service — the maps demonstrate no expansion of service area.

A second finding emerges from comparing the two maps directly. Cellular coverage outside the applicant's target ellipse appears to be degraded on the "Proposed Coverage" map relative to the "Current Coverage" map. Adding a transmitter cannot reduce the signal received from existing transmitters operating on different physical infrastructure. Asymmetric degradation outside the target area is therefore not a physical phenomenon; it is a methodological artifact. The two simulations were not run with identical parameters, and the comparison is not internally consistent.

When these findings are combined with the prior carrier-distance analysis (four Verizon facilities within 5.71 miles of the proposed site, two of them on the I-25/NM-165 corridor at 2.27 and 3.60 miles), with the independent ArcGIS viewshed analysis filed by J. Branum (March 2026), and with the separate technical critique of the applicant's coverage-gap demonstration (V2 memorandum, May 1, 2026), a coherent picture emerges: the proposed tower offers a downlink-power upgrade within an area that already has cellular service, in geographic territory already shadowed and already served by closer existing infrastructure. This is a quality refresh, not a coverage gap remedy.

This memorandum addresses only the engineering content of the maps. Radio-frequency emission safety is preempted under §704 of the Telecommunications Act and is not within the Commission's purview.

2. Scope and documents reviewed

This memorandum supplements and does not replace the May 1, 2026 Technical Memorandum — Coverage Claims Analysis V2 ("V2 memorandum"). The V2 memorandum addressed the broader applicant deck including the OpenSignal/CellMapper/Ookla crowdsourced slides, the carrier-distance slides, the "Why here?" rationale slide, and the propagation-model slides at a general level. This memorandum drills into a single component of that record — the applicant's RSRP "Current" and "Proposed" propagation maps — and integrates the finding with the broader coverage record.

Documents specifically referenced:

- **RSRP — Current Coverage map** (applicant submission, dated 2024 watermark; received with CU-26-001).
- **RSRP — Proposed Coverage map** (applicant submission, dated 2024 watermark; received with CU-26-001).
- **Technical Memorandum — Coverage Claims Analysis V2**, C. E. Garner, May 1, 2026, filed to CU-26-001 record.
- **Independent ArcGIS Pro viewshed analysis**, J. Branum, March 2026, filed to CU-26-001 record.
- **RF Design Analysis**, Biwabkos Consultants LLC, NM01-148 Spike / ABQ_TIERRA-MADRE Coverage Site, 30 slides (applicant submission).
- **Verizon Wireless published coverage map** at verizon.com/coverage-map (publicly accessible reference).
- **3GPP TS 36.214** ("Physical layer; Measurements") and **3GPP TS 36.133** ("Requirements for support of radio resource management"), defining RSRP as the network-layer reference-signal power metric.

3. What RSRP measures — and what it does not

Reference Signal Received Power (RSRP) is defined in 3GPP TS 36.214 as the linear average over the power contributions, in watts, of the resource elements carrying cell-specific reference signals within a measurement bandwidth. It is reported in dBm. RSRP is a downlink signal-strength metric. It tells the network how much reference-signal power a user device receives from a serving cell. It does not measure user throughput, capacity headroom, signal-to-noise ratio, voice-call success rate, or any other element of the user experience. Those are separate metrics: RSRQ, SINR, PRB utilization, accessibility, retainability, drop-call-rate, throughput percentile distributions, and so forth.

A propagation model that predicts RSRP at every grid cell in a coverage area is a useful tool for relative comparisons within a single model run. It is not a measurement of what users actually experience. The applicant's maps are model output, not field data. The customary technical basis for documenting a coverage gap to a regulatory body is carrier-conducted drive testing using a calibrated scanner that records RSRP, RSRQ, and SINR at GPS waypoints, ideally cross-referenced against the carrier's call data records. None of that has been submitted with this application.

4. Threshold conventions and label inflation

The legend on both maps uses three thresholds, with a fourth tier (uncolored) representing "below −101 dBm." The labels assigned to the three colored tiers are commercial marketing conventions, not engineering specifications:

Color	Applicant threshold	Applicant label	Engineering reality
Green	≥ −85 dBm	Indoor	Strong; penetrates building walls
Yellow	≥ −95 dBm	In-Vehicle	Penetrates vehicle glass and metal
Orange/Red	≥ −101 dBm	Outdoor	Usable outside structures; voice and data still functional
Uncolored	< −101 dBm	(implied no service)	LTE service routinely sustained to −110 to −118 dBm; 3GPP minimum performance is −124 dBm

The consequence of this threshold structure is presentational rather than technical. The applicant's maps render the entire population of users with signal between −95 dBm and −101 dBm in orange or red — the colors a viewer reads as "poor" or "no" service. In radio engineering terms those users have functional service. Drawing the cutoff at −101 dBm and shading everything below in red is a presentational choice. It converts the visual representation of in-vehicle and outdoor LTE service into the visual representation of an uncovered area.

For reference, the LTE noise floor in a 10 MHz channel is on the order of −120 to −125 dBm. 3GPP TS 36.101 specifies minimum design RSRP at −124 dBm. Voice calls are routinely sustained to −115 to −118 dBm; data sessions to −110 to −115 dBm. The applicant's "Outdoor" boundary at −101 dBm is approximately 9 to 14 dB above where the user experience actually starts to degrade. This is not a controversial point; it is documented in the same 3GPP technical specification that defines the metric.

5. The two propagation maps as submitted

The two maps below are reproduced from the applicant's submission. They are presented at the same map extent, with the same legend and the same red ellipse identifying the applicant's target service area.

Figure 5.1 — RSRP — Current Coverage. Source: applicant's submitted propagation map.

Figure 5.2 — RSRP — Proposed Coverage. Source: applicant's submitted propagation map.

6. Inside the ellipse: the signal-strength upgrade is real but qualified

Within the red target ellipse, the maps differ in a manner consistent with the introduction of a new transmitter at the proposed site. Specifically:

- **Current Coverage (Figure 5.1) within the ellipse:** Predominantly orange and yellow, with patches of uncolored area in the southern portion of the ellipse. Under the applicant's threshold scheme, this is "Outdoor" to "In-Vehicle" tier service across most of the ellipse, with possible signal absence in part of the south.
- **Proposed Coverage (Figure 5.2) within the ellipse:** Predominantly green at the center and immediate radius of the new transmitter, transitioning to yellow at the ellipse boundary, with orange and uncolored areas largely eliminated within the ellipse. Under the applicant's threshold scheme, this is "Indoor" tier service within the inner ellipse and "In-Vehicle" tier at the periphery.

This portion of the comparison is consistent with what a new 75-foot monopole at the proposed location would be expected to produce within line-of-sight terrain near the tower. The downlink RSRP improvement within the ellipse is real. Honest analysis requires acknowledging it.

What that improvement does not establish is independently informative:

- Coverage in the engineering sense — the existence of usable carrier service — already exists across most of the ellipse on the Current Coverage map. The applicant's own threshold tiers acknowledge this: "Outdoor" and "In-Vehicle" service are tiers of service, not absence of service.
- The improvement is from one service tier to a stronger service tier within an area already served. That is an upgrade, not a gap fill.

- The upgrade benefits Verizon's users within the ellipse and only Verizon's users; the application is for a single-carrier monopole at first occupancy. Other carriers' users see no change from this tower.
- The visible improvement is bounded by the same ridgeline geometry that bounds existing carrier coverage. A 75-foot tower at 221 NM-165 cannot illuminate terrain shadowed from 221 NM-165 by intervening ridgelines. The ellipse footprint is itself a function of that geometry, not of the new tower's power.

The honest engineering description of what the inside-the-ellipse comparison shows is therefore: a downlink signal-strength upgrade for Verizon users in line-of-sight terrain to the proposed site, in territory that already has cellular service. The applicant has not produced evidence that this upgrade is the only available remedy, that it is necessary to maintain service, or that absent the new tower users in the ellipse experience service failure.

7. Outside the ellipse: an internal-consistency failure

A more diagnostic finding emerges when the two maps are compared in the regions outside the applicant's target ellipse. Adding a transmitter at the proposed site cannot, as a matter of physics, reduce the signal received at any other location from the existing towers operating in the area. The radio-frequency power radiated by the SBA Tower (2.27 mi west), the AMT Tower (3.60 mi southwest), the eastern Verizon site (4.12 mi), and the northern Verizon site (5.71 mi) is unchanged by anything that happens at 221 NM-165. The downlink RSRP from those existing sources, at every grid cell on the map, must be identical between the Current and Proposed simulations.

The maps as submitted do not show this expected identity. Specifically:

- Areas to the west, northwest, and northeast outside the ellipse that display green (Indoor) on the Current Coverage map appear as yellow (In-Vehicle) and in some places orange (Outdoor) on the Proposed Coverage map.
- The southern fringe of the map shows similar shifts — areas with stronger signal on the Current map are downgraded on the Proposed map at the same coordinates.
- Where degradation appears, it does so in regions where the new tower's direct contribution to RSRP is small or zero. The shifts are not at the tower; they are at locations distant from the tower.

No physical mechanism in cellular RF engineering produces this pattern from the simple addition of a transmitter. The pattern is therefore an artifact of how the two simulations were configured, not a finding about the radio environment. At least one of the following is true:

- The two maps were generated with different propagation model parameters — different clutter loss, different antenna pattern, different terrain database resolution, different correction factors.

- The two maps depict different frequency bands — if the Current map shows a low-band carrier (700/850 MHz) and the Proposed map shows a higher-band carrier (1900/2100 MHz, AWS-3, or C-band 3.7 GHz), the propagation losses are fundamentally different and the comparison is not valid.
- The two maps were generated with different network loading assumptions or different best-server selection rules, producing apparent differences in coverage that do not exist in the radio domain.
- The "Proposed Coverage" map was generated by re-simulating the entire network with revised parameters, rather than by adding a single tower to a fixed baseline.

Without access to the underlying simulation parameter file (Atoll, Forsk, Mentum, or equivalent project file), the specific cause cannot be determined. What can be determined is that the two maps as submitted are not strictly comparable. The Commission is being shown two simulations and invited to compare them as if the only difference were the addition of the proposed tower, when the visible evidence on the maps themselves indicates additional differences in simulation methodology.

This is independently sufficient grounds to discount the maps as a coverage-impact demonstration. Coverage maps presented in zoning applications are commonly produced by carrier or consultant in support of approval. Applying the same scrutiny that would be applied to any contested simulation in a regulatory record — verifying internal consistency before crediting the result — these maps fail.

8. Integration with existing carrier-spacing data

The V2 memorandum (§5) documents, from the applicant's own deck slides 6, 10, and 24, the locations of nine existing carrier facilities within 5.71 miles of the proposed site. The Verizon-relevant subset is reproduced here:

Carrier	Site identifier (per applicant deck)	Distance from proposed site
Verizon	SBA Tower (west, I-25/NM-165 corridor)	2.27 miles
Verizon	AMT Tower (southwest, corridor)	3.60 miles
Verizon	Eastern site	4.12 miles
Verizon	Northern site	5.71 miles

Typical rural macro-cell spacing in the western United States is on the order of 4 to 8 miles between sites. The proposed site sits in an unusually dense existing footprint by that benchmark, with two Verizon corridor sites within 3.60 miles. The interior-of-ellipse improvement visible on Figure 5.2 is the predictable consequence of placing a fifth Verizon transmitter inside that already-

dense footprint. It does not establish that absent the new tower, users in the ellipse cannot obtain Verizon service.

Connecting this to the propagation-map analysis: the Current Coverage map (Figure 5.1) shows the cumulative RSRP from those existing four Verizon facilities, principally the SBA and AMT corridor sites at 2.27 and 3.60 miles. The orange-to-yellow color on most of the ellipse area on Figure 5.1 is in fact the documentary evidence that those existing sites are illuminating the proposed coverage area at “Outdoor” and “In-Vehicle” tier RSRP today. The applicant’s own simulation, if accepted at face value, demonstrates that existing Verizon infrastructure already covers the area to a usable signal level.

9. Integration with the Branum ArcGIS viewshed analysis

The independent ArcGIS Pro viewshed analysis filed by J. Branum (March 2026) examined the geometric line-of-sight footprint from the proposed 75-foot tower top across the surrounding terrain. The orange shaded areas on Figure 9.1 are the cells from which the tower top is geometrically visible. Cells outside the orange polygons are shadowed from the proposed site by intervening terrain and cannot receive RSRP from this tower regardless of transmit power.

Figure 9.1 — ArcGIS Pro viewshed analysis from the proposed 75-ft tower top. Source: J. Branum, March 2026, filed to the CU-26-001 record. Orange = line-of-sight cells; uncolored = terrain-shadowed.

The viewshed footprint from the proposed site overlaps almost entirely with the existing I-25/NM-165 corridor coverage footprint produced by the SBA and AMT Verizon towers at 2.27 and 3.60 miles. Both the proposed site and the corridor sites enjoy line-of-sight to the same residential areas of Placitas Homesteads, Anasazi Trails, Desert Mountain, and the Highway 165 corridor through the village. Both are blocked by the same ridgelines from reaching deep into Sundance Mesa, Ranchos des Placitas, and the back canyons.

This finding has three direct consequences for the propagation-map evidence:

- The improvement visible inside the applicant’s ellipse on Figure 5.2 is improvement in line-of-sight terrain that already has line-of-sight to the existing corridor towers. The area is not currently dark; it is currently lit from the corridor.
- The areas of present-day weak signal that are visible as orange or uncolored on Figure 5.1 in shadowed terrain (back side of ridgelines, deep canyons) are also outside the proposed tower’s viewshed. Adding the proposed tower does not remedy them. They remain dark on Figure 5.2 for the same physical reason they are dark today: terrain blocks line-of-sight from any tower at 221 NM-165.
- The proposed tower’s differentiation from existing infrastructure is therefore not in geographic reach but in proximity. It is closer to the homes inside the ellipse than the corridor towers are. Closer means stronger received signal in the line-of-sight cells, which is exactly what Figure 5.2 shows. It does not mean newly reached cells.

10. Does this represent an actual increase in coverage?

The question admits three honest answers, depending on which definition of "coverage" is operative:

10.1 Coverage as the existence of usable cellular service

No meaningful increase. The applicant's Current Coverage map shows orange/yellow ("Outdoor" / "In-Vehicle" tiers under the applicant's own legend) across the target ellipse today. Those tiers are tiers of functional cellular service. Users within the ellipse can place voice calls, send and receive data, and operate connected applications today, on existing carrier infrastructure. This is the definition of coverage used by the FCC, by 47 U.S.C. §332, and by the Telecommunications Act §704 effective-prohibition framework. Under this definition, the proposed tower fills no gap.

10.2 Coverage as RSRP ≥ −85 dBm "Indoor" tier

Yes, a real increase within the ellipse. The Current Coverage map shows mostly sub-Indoor-tier RSRP across the target area. The Proposed Coverage map shows the new tower fills the inner ellipse with Indoor-tier RSRP. This is a legitimate observation about what the maps depict. It is also a discretionary observation — a higher RSRP threshold is a quality target, not a service threshold. A tower zoning decision rests on whether the area is presently served, not on whether reference-signal power within the area can be made stronger by adding more transmitters. By that logic the area could always justify another tower, regardless of present service quality.

10.3 Coverage as the geographic extent of any service

Inconclusive on the maps as submitted. The maps display different coverage extents outside the target ellipse, in a pattern inconsistent with the simple addition of a single transmitter. The differences cannot be attributed to the new tower's contribution and are most parsimoniously explained as artifacts of differing simulation parameters between the two model runs. Without the underlying parameter file, the two maps cannot be compared as a clean before-and-after demonstration. The viewshed analysis (§9) independently establishes that the proposed tower's reach footprint is contained within the reach footprint of the existing corridor towers, which means an honest geographic-extent comparison would show no increase even with consistent simulation parameters.

11. Synthesis: the comprehensive coverage-impact narrative

Pulling the elements together, the coverage-impact picture for CU-26-001 is as follows:

11.1 Service exists today

Four Verizon facilities operate within 5.71 miles of the proposed site, including two on the I-25/NM-165 corridor at 2.27 and 3.60 miles. The applicant's own propagation simulation (Figure 5.1) shows orange and yellow tier RSRP across the target ellipse from those existing facilities,

indicating “Outdoor” and “In-Vehicle” tier Verizon service today. The OpenSignal slides analyzed in the V2 memorandum (§4.5) show the applicant’s own real-time speed-test measurements of 44.5 Mbps Verizon downlink, 109.6 Mbps T-Mobile downlink, and 51 ms T-Mobile latency captured in the area. The area has cellular service.

11.2 The proposed tower’s reach is contained within existing reach

The Branum viewshed analysis (Figure 9.1) demonstrates that the geometric line-of-sight footprint from the proposed 75-foot tower at 221 NM-165 overlaps the line-of-sight footprint of the existing corridor towers. The proposed site does not illuminate terrain shadowed from the corridor; it illuminates the same line-of-sight cells more strongly. Areas presently shadowed by ridgelines remain shadowed.

11.3 The applicant’s evidence is internally inconsistent

The two propagation maps (Figures 5.1 and 5.2) display differences outside the target ellipse that are not physically attributable to the proposed tower. Either the simulation parameters differ between the two runs, the depicted frequency band differs, the loading assumptions differ, or the best-server selection rule differs. The maps cannot serve as a clean before-and-after comparison without disclosure of the underlying parameter file.

11.4 The justification has shifted from coverage to capacity, without supporting capacity data

The applicant’s deck slide 28 lists capacity rationales (additional bandwidth, better throughput, offload of surrounding sites) alongside coverage rationale, and slide 29 distinguishes the two: coverage is providing service where service does not exist; capacity is providing bandwidth to existing customers. As documented in the V2 memorandum (§8), the deck does not present capacity-utilization data for the four nearest Verizon sites — no PRB utilization curves, no peak-hour throughput, no attach failures, no congestion indicators. Capacity remediation has multiple alternatives that are not analyzed: sectorization upgrades, MIMO replacements, supplemental spectrum carriers, small cells, distributed antenna systems, Wi-Fi calling. None of these are addressed in the application.

11.5 What the proposed tower actually delivers

A signal-strength upgrade from “In-Vehicle” tier RSRP to “Indoor” tier RSRP for Verizon users in line-of-sight terrain inside the applicant’s target ellipse, in an area that already has Verizon service, in a footprint already reached by existing infrastructure. This is a quality refresh, plausibly part of a broader 4G to 5G technology and capacity refresh on the Verizon network in the I-25 corridor. It is not a coverage gap remedy under any engineering or regulatory definition of coverage.

12. Findings

- **Finding 1.** The applicant's two propagation maps demonstrate, within the target ellipse, a downlink RSRP upgrade from "Outdoor"/"In-Vehicle" tier service to "Indoor" tier service. The improvement is real for Verizon users in line-of-sight terrain near the new tower.
- **Finding 2.** The applicant's two propagation maps display differences outside the target ellipse that cannot be attributed to the new tower's physical contribution. The maps were not generated under identical simulation parameters and are not strictly comparable as a before-and-after demonstration.
- **Finding 3.** The threshold and color-scheme choices on the maps render "In-Vehicle" tier and weaker "Outdoor" tier RSRP in red and orange, the visual equivalent of "no service." This is a presentational choice, not an engineering finding. LTE service is routinely sustained at signal levels well below the applicant's −101 dBm "Outdoor" boundary.
- **Finding 4.** The line-of-sight footprint of the proposed 75-foot tower (per the independent Branum viewshed analysis) overlaps the line-of-sight footprint of the existing corridor towers. The proposed site does not extend cellular service into geography presently unreached.
- **Finding 5.** Existing Verizon infrastructure at 2.27, 3.60, 4.12, and 5.71 miles from the proposed site already illuminates the target ellipse at usable RSRP per the applicant's own Current Coverage map. Cellular service exists in the area today.
- **Finding 6.** The proposed tower delivers a signal-strength upgrade for Verizon users within an already-served area, not a coverage gap remedy. This is consistent with a capacity or quality refresh and is independently consistent with the application's mid-document shift from coverage to capacity rationale (V2 memorandum §8).
- **Finding 7.** No drive-test data, no call data record analysis, no capacity-utilization data for nearby Verizon sites, and no field-validated propagation comparison have been submitted. The maps stand alone as model output, with no measurement to anchor them.

13. Recommendations to the Commission

- **Recommendation 1.** Treat the two propagation maps as model output, not as field measurements. They do not establish that the area presently lacks cellular service.
- **Recommendation 2.** Require the applicant to produce, prior to a finding of completeness on the coverage element of CU-26-001:
    - the underlying propagation simulation project file (Atoll, Forsk, Mentum, or equivalent) for both the Current and Proposed scenarios, with parameter sets disclosed;
    - an explanation of the visible differences in coverage outside the target ellipse between the two maps;
    - the specific frequency band(s) and antenna pattern(s) modeled for each scenario;

  - carrier-conducted drive-test data (RSRP, RSRQ, SINR at GPS waypoints) supporting the propagation model;
  - call data record analysis from Verizon's network operations data showing dropped-call rates, handover failures, and access failures attributable to the alleged coverage condition;
  - capacity-utilization data for the four nearest Verizon sites (PRB utilization, peak-hour throughput, attach failure rate);
  - a Sandoval County-specific alternatives analysis addressing sectorization, MIMO upgrades, supplemental spectrum carriers, small cells, distributed antenna systems, and Wi-Fi calling at existing sites.
- **Recommendation 3.** Recognize that an "Indoor" tier RSRP upgrade within an already-served area is a discretionary quality target, not a regulatory coverage requirement. The Telecommunications Act §332/§704 effective-prohibition framework protects the existence of carrier service, not its signal strength tier.
- **Recommendation 4.** Read the propagation-map evidence in conjunction with: (i) the carrier-distance evidence (§8 above), (ii) the Branum viewshed analysis (§9), and (iii) the V2 memorandum on the broader applicant deck. No single piece of evidence is dispositive; together they establish that the area is presently served, that the proposed tower's reach is contained within existing reach, and that the application's coverage-gap demonstration does not survive technical scrutiny.

14. Limitations of this analysis

This memorandum interprets propagation-model output reproduced at scanned-document resolution. The following caveats apply:

- The Current and Proposed Coverage maps are pixel images. Without the underlying simulation parameter file, the specific cause of the asymmetric coverage shift outside the target ellipse cannot be determined with certainty. The presence of asymmetric shift is verifiable from the maps themselves; its cause is not.
- The qualitative descriptions in this memorandum (predominantly green, mostly orange, etc.) are interpretations of color tiles on a printed map. Quantitative pixel counts within tier boundaries would require access to the source GIS layers.
- The 3GPP RSRP performance benchmarks cited (−110 dBm typical data session, −115 to −118 dBm typical voice call) are values widely reported in 3GPP TS 36.101 and TS 36.133 and in carrier engineering documentation. Specific user experience varies with device, antenna implementation, channel bandwidth, modulation/coding scheme, and noise environment.
- The Branum viewshed analysis (Figure 9.1) is a geometric line-of-sight calculation. It does not include diffraction, scatter, or near-vertical incidence skywave propagation; nor does

it depict reflective multipath. In rugged terrain at 700–2100 MHz, line-of-sight is the dominant first-order propagation mode and the geometric viewshed is a defensible first approximation, but it is not a complete radio model.

- The Branum analysis was filed to the CU-26-001 record by John Branum and is referenced here as part of the public administrative record. The interpretation in §9 is the author's; any concerns about the underlying viewshed methodology should be addressed to the original analysis.
- This memorandum addresses coverage and engineering only. It does not address radio-frequency emission safety, which is preempted under §704 of the Telecommunications Act and lies outside the Commission's purview.

Attribution

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Sources cited: applicant's submitted RSRP — Current Coverage and RSRP — Proposed Coverage propagation maps; Biwabkos Consultants LLC RF Design Analysis (NM01-148 Spike / ABQ_TIERRA-MADRE Coverage Site, 30 slides); Pinnacle Consulting Development Narrative Report (09/30/2025); independent ArcGIS Pro viewshed analysis filed to the CU-26-001 record (J. Branum, March 2026); Verizon Wireless published coverage map at verizon.com/coverage-map; Technical Memorandum — Coverage Claims Analysis V2 (C. E. Garner, May 1, 2026); 3GPP TS 36.214 (Physical layer measurements); 3GPP TS 36.133 (Requirements for support of radio resource management); 3GPP TS 36.101 (LTE radio transmission/reception minimum performance).

This memorandum is provided to the Sandoval County Planning & Zoning Commission and to the Sandoval County Planning & Zoning Department for inclusion in the administrative record of CU-26-001.

TECHNICAL MEMORANDUM

RSRP Propagation Map Analysis and Coverage Impact Synthesis

CU-26-001 — Proposed 75-ft Monopole at 221 NM-165, Placitas, NM

To:	Sandoval County Planning & Zoning Commission; Doraida Arias, Interim Director, Planning & Zoning
From:	C. Edwin Garner, Ph.D., 46 Camino Barranca, Placitas, NM 87043
Date:	May 4, 2026
Re:	Detailed analysis of the applicant's RSRP propagation maps (Current Coverage vs. Proposed Coverage) and integration with prior coverage-claim and viewshed analyses on the CU-26-001 record
Status:	Supplement and addendum to Technical Memorandum — Coverage Claims Analysis V2 (May 1, 2026)

1. Executive summary

This memorandum addresses a specific evidentiary element of the applicant's coverage demonstration that warrants its own treatment: the two propagation prediction maps the applicant has submitted as the principal visual claim of coverage benefit. These are the slides labeled "RSRP — Current Coverage" and "RSRP — Proposed Coverage" generated by the applicant's consultant. Together they are presented to the Commission as proof that the proposed monopole materially expands cellular service in the area.

On technical examination, the two maps do not establish an actual increase in cellular coverage in any meaningful engineering sense. They establish, at most, that within an applicant-defined target ellipse the proposed tower delivers stronger downlink reference-signal power than what is presently available. Whether stronger reference-signal power within an area that already has cellular service constitutes a "coverage increase" depends entirely on which definition of coverage the Commission applies. Under the engineering definition used by the Federal Communications Commission and the Telecommunications Act §332/§704 framework — the existence of usable carrier service — the maps demonstrate no expansion of service area.

A second finding emerges from comparing the two maps directly. Cellular coverage outside the applicant's target ellipse appears to be degraded on the "Proposed Coverage" map relative to the "Current Coverage" map. Adding a transmitter cannot reduce the signal received from existing transmitters operating on different physical infrastructure. Asymmetric degradation outside the target area is therefore not a physical phenomenon; it is a methodological artifact. The two simulations were not run with identical parameters, and the comparison is not internally consistent.

When these findings are combined with the prior carrier-distance analysis (four Verizon facilities within 5.71 miles of the proposed site, two of them on the I-25/NM-165 corridor at 2.27 and 3.60 miles), with the independent ArcGIS viewshed analysis filed by J. Branum (March 2026), and with the separate technical critique of the applicant's coverage-gap demonstration (V2 memorandum, May 1, 2026), a coherent picture emerges: the proposed tower offers a downlink-power upgrade within an area that already has cellular service, in geographic territory already shadowed and already served by closer existing infrastructure. This is a quality refresh, not a coverage gap remedy.

This memorandum addresses only the engineering content of the maps. Radio-frequency emission safety is preempted under §704 of the Telecommunications Act and is not within the Commission's purview.

2. Scope and documents reviewed

This memorandum supplements and does not replace the May 1, 2026 Technical Memorandum — Coverage Claims Analysis V2 ("V2 memorandum"). The V2 memorandum addressed the broader applicant deck including the OpenSignal/CellMapper/Ookla crowdsourced slides, the carrier-distance slides, the "Why here?" rationale slide, and the propagation-model slides at a general level. This memorandum drills into a single component of that record — the applicant's RSRP "Current" and "Proposed" propagation maps — and integrates the finding with the broader coverage record.

Documents specifically referenced:

- **RSRP — Current Coverage map** (applicant submission, dated 2024 watermark; received with CU-26-001).
- **RSRP — Proposed Coverage map** (applicant submission, dated 2024 watermark; received with CU-26-001).
- **Technical Memorandum — Coverage Claims Analysis V2**, C. E. Garner, May 1, 2026, filed to CU-26-001 record.
- **Independent ArcGIS Pro viewshed analysis**, J. Branum, March 2026, filed to CU-26-001 record.
- **RF Design Analysis**, Biwabkos Consultants LLC, NM01-148 Spike / ABQ_TIERRA-MADRE Coverage Site, 30 slides (applicant submission).
- **Verizon Wireless published coverage map** at verizon.com/coverage-map (publicly accessible reference).
- **3GPP TS 36.214** ("Physical layer; Measurements") and **3GPP TS 36.133** ("Requirements for support of radio resource management"), defining RSRP as the network-layer reference-signal power metric.

3. What RSRP measures — and what it does not

Reference Signal Received Power (RSRP) is defined in 3GPP TS 36.214 as the linear average over the power contributions, in watts, of the resource elements carrying cell-specific reference signals within a measurement bandwidth. It is reported in dBm. RSRP is a downlink signal-strength metric. It tells the network how much reference-signal power a user device receives from a serving cell. It does not measure user throughput, capacity headroom, signal-to-noise ratio, voice-call success rate, or any other element of the user experience. Those are separate metrics: RSRQ, SINR, PRB utilization, accessibility, retainability, drop-call-rate, throughput percentile distributions, and so forth.

A propagation model that predicts RSRP at every grid cell in a coverage area is a useful tool for relative comparisons within a single model run. It is not a measurement of what users actually experience. The applicant's maps are model output, not field data. The customary technical basis for documenting a coverage gap to a regulatory body is carrier-conducted drive testing using a calibrated scanner that records RSRP, RSRQ, and SINR at GPS waypoints, ideally cross-referenced against the carrier's call data records. None of that has been submitted with this application.

4. Threshold conventions and label inflation

The legend on both maps uses three thresholds, with a fourth tier (uncolored) representing "below −101 dBm." The labels assigned to the three colored tiers are commercial marketing conventions, not engineering specifications:

Color	Applicant threshold	Applicant label	Engineering reality
Green	≥ −85 dBm	Indoor	Strong; penetrates building walls
Yellow	≥ −95 dBm	In-Vehicle	Penetrates vehicle glass and metal
Orange/Red	≥ −101 dBm	Outdoor	Usable outside structures; voice and data still functional
Uncolored	< −101 dBm	(implied no service)	LTE service routinely sustained to −110 to −118 dBm; 3GPP minimum performance is −124 dBm

The consequence of this threshold structure is presentational rather than technical. The applicant's maps render the entire population of users with signal between −95 dBm and −101 dBm in orange or red — the colors a viewer reads as "poor" or "no" service. In radio engineering terms those users have functional service. Drawing the cutoff at −101 dBm and shading everything below in red is a presentational choice. It converts the visual representation of in-vehicle and outdoor LTE service into the visual representation of an uncovered area.

For reference, the LTE noise floor in a 10 MHz channel is on the order of −120 to −125 dBm. 3GPP TS 36.101 specifies minimum design RSRP at −124 dBm. Voice calls are routinely sustained to −115 to −118 dBm; data sessions to −110 to −115 dBm. The applicant's "Outdoor" boundary at −101 dBm is approximately 9 to 14 dB above where the user experience actually starts to degrade. This is not a controversial point; it is documented in the same 3GPP technical specification that defines the metric.

5. The two propagation maps as submitted

The two maps below are reproduced from the applicant's submission. They are presented at the same map extent, with the same legend and the same red ellipse identifying the applicant's target service area.

Figure 5.1 — RSRP — Current Coverage. Source: applicant's submitted propagation map.

Figure 5.2 — RSRP — Proposed Coverage. Source: applicant's submitted propagation map.

6. Inside the ellipse: the signal-strength upgrade is real but qualified

Within the red target ellipse, the maps differ in a manner consistent with the introduction of a new transmitter at the proposed site. Specifically:

- **Current Coverage (Figure 5.1) within the ellipse:** Predominantly orange and yellow, with patches of uncolored area in the southern portion of the ellipse. Under the applicant's threshold scheme, this is "Outdoor" to "In-Vehicle" tier service across most of the ellipse, with possible signal absence in part of the south.
- **Proposed Coverage (Figure 5.2) within the ellipse:** Predominantly green at the center and immediate radius of the new transmitter, transitioning to yellow at the ellipse boundary, with orange and uncolored areas largely eliminated within the ellipse. Under the applicant's threshold scheme, this is "Indoor" tier service within the inner ellipse and "In-Vehicle" tier at the periphery.

This portion of the comparison is consistent with what a new 75-foot monopole at the proposed location would be expected to produce within line-of-sight terrain near the tower. The downlink RSRP improvement within the ellipse is real. Honest analysis requires acknowledging it.

What that improvement does not establish is independently informative:

- Coverage in the engineering sense — the existence of usable carrier service — already exists across most of the ellipse on the Current Coverage map. The applicant's own threshold tiers acknowledge this: "Outdoor" and "In-Vehicle" service are tiers of service, not absence of service.
- The improvement is from one service tier to a stronger service tier within an area already served. That is an upgrade, not a gap fill.

- The upgrade benefits Verizon's users within the ellipse and only Verizon's users; the application is for a single-carrier monopole at first occupancy. Other carriers' users see no change from this tower.
- The visible improvement is bounded by the same ridgeline geometry that bounds existing carrier coverage. A 75-foot tower at 221 NM-165 cannot illuminate terrain shadowed from 221 NM-165 by intervening ridgelines. The ellipse footprint is itself a function of that geometry, not of the new tower's power.

The honest engineering description of what the inside-the-ellipse comparison shows is therefore: a downlink signal-strength upgrade for Verizon users in line-of-sight terrain to the proposed site, in territory that already has cellular service. The applicant has not produced evidence that this upgrade is the only available remedy, that it is necessary to maintain service, or that absent the new tower users in the ellipse experience service failure.

7. Outside the ellipse: an internal-consistency failure

A more diagnostic finding emerges when the two maps are compared in the regions outside the applicant's target ellipse. Adding a transmitter at the proposed site cannot, as a matter of physics, reduce the signal received at any other location from the existing towers operating in the area. The radio-frequency power radiated by the SBA Tower (2.27 mi west), the AMT Tower (3.60 mi southwest), the eastern Verizon site (4.12 mi), and the northern Verizon site (5.71 mi) is unchanged by anything that happens at 221 NM-165. The downlink RSRP from those existing sources, at every grid cell on the map, must be identical between the Current and Proposed simulations.

The maps as submitted do not show this expected identity. Specifically:

- Areas to the west, northwest, and northeast outside the ellipse that display green (Indoor) on the Current Coverage map appear as yellow (In-Vehicle) and in some places orange (Outdoor) on the Proposed Coverage map.
- The southern fringe of the map shows similar shifts — areas with stronger signal on the Current map are downgraded on the Proposed map at the same coordinates.
- Where degradation appears, it does so in regions where the new tower's direct contribution to RSRP is small or zero. The shifts are not at the tower; they are at locations distant from the tower.

No physical mechanism in cellular RF engineering produces this pattern from the simple addition of a transmitter. The pattern is therefore an artifact of how the two simulations were configured, not a finding about the radio environment. At least one of the following is true:

- The two maps were generated with different propagation model parameters — different clutter loss, different antenna pattern, different terrain database resolution, different correction factors.

- The two maps depict different frequency bands — if the Current map shows a low-band carrier (700/850 MHz) and the Proposed map shows a higher-band carrier (1900/2100 MHz, AWS-3, or C-band 3.7 GHz), the propagation losses are fundamentally different and the comparison is not valid.
- The two maps were generated with different network loading assumptions or different best-server selection rules, producing apparent differences in coverage that do not exist in the radio domain.
- The "Proposed Coverage" map was generated by re-simulating the entire network with revised parameters, rather than by adding a single tower to a fixed baseline.

Without access to the underlying simulation parameter file (Atoll, Forsk, Mentum, or equivalent project file), the specific cause cannot be determined. What can be determined is that the two maps as submitted are not strictly comparable. The Commission is being shown two simulations and invited to compare them as if the only difference were the addition of the proposed tower, when the visible evidence on the maps themselves indicates additional differences in simulation methodology.

This is independently sufficient grounds to discount the maps as a coverage-impact demonstration. Coverage maps presented in zoning applications are commonly produced by carrier or consultant in support of approval. Applying the same scrutiny that would be applied to any contested simulation in a regulatory record — verifying internal consistency before crediting the result — these maps fail.

8. Integration with existing carrier-spacing data

The V2 memorandum (§5) documents, from the applicant's own deck slides 6, 10, and 24, the locations of nine existing carrier facilities within 5.71 miles of the proposed site. The Verizon-relevant subset is reproduced here:

Carrier	Site identifier (per applicant deck)	Distance from proposed site
Verizon	SBA Tower (west, I-25/NM-165 corridor)	2.27 miles
Verizon	AMT Tower (southwest, corridor)	3.60 miles
Verizon	Eastern site	4.12 miles
Verizon	Northern site	5.71 miles

Typical rural macro-cell spacing in the western United States is on the order of 4 to 8 miles between sites. The proposed site sits in an unusually dense existing footprint by that benchmark, with two Verizon corridor sites within 3.60 miles. The interior-of-ellipse improvement visible on Figure 5.2 is the predictable consequence of placing a fifth Verizon transmitter inside that already-

dense footprint. It does not establish that absent the new tower, users in the ellipse cannot obtain Verizon service.

Connecting this to the propagation-map analysis: the Current Coverage map (Figure 5.1) shows the cumulative RSRP from those existing four Verizon facilities, principally the SBA and AMT corridor sites at 2.27 and 3.60 miles. The orange-to-yellow color on most of the ellipse area on Figure 5.1 is in fact the documentary evidence that those existing sites are illuminating the proposed coverage area at “Outdoor” and “In-Vehicle” tier RSRP today. The applicant’s own simulation, if accepted at face value, demonstrates that existing Verizon infrastructure already covers the area to a usable signal level.

9. Integration with the Branum ArcGIS viewshed analysis

The independent ArcGIS Pro viewshed analysis filed by J. Branum (March 2026) examined the geometric line-of-sight footprint from the proposed 75-foot tower top across the surrounding terrain. The orange shaded areas on Figure 9.1 are the cells from which the tower top is geometrically visible. Cells outside the orange polygons are shadowed from the proposed site by intervening terrain and cannot receive RSRP from this tower regardless of transmit power.

Figure 9.1 — ArcGIS Pro viewshed analysis from the proposed 75-ft tower top. Source: J. Branum, March 2026, filed to the CU-26-001 record. Orange = line-of-sight cells; uncolored = terrain-shadowed.

The viewshed footprint from the proposed site overlaps almost entirely with the existing I-25/NM-165 corridor coverage footprint produced by the SBA and AMT Verizon towers at 2.27 and 3.60 miles. Both the proposed site and the corridor sites enjoy line-of-sight to the same residential areas of Placitas Homesteads, Anasazi Trails, Desert Mountain, and the Highway 165 corridor through the village. Both are blocked by the same ridgelines from reaching deep into Sundance Mesa, Ranchos des Placitas, and the back canyons.

This finding has three direct consequences for the propagation-map evidence:

- The improvement visible inside the applicant’s ellipse on Figure 5.2 is improvement in line-of-sight terrain that already has line-of-sight to the existing corridor towers. The area is not currently dark; it is currently lit from the corridor.
- The areas of present-day weak signal that are visible as orange or uncolored on Figure 5.1 in shadowed terrain (back side of ridgelines, deep canyons) are also outside the proposed tower’s viewshed. Adding the proposed tower does not remedy them. They remain dark on Figure 5.2 for the same physical reason they are dark today: terrain blocks line-of-sight from any tower at 221 NM-165.
- The proposed tower’s differentiation from existing infrastructure is therefore not in geographic reach but in proximity. It is closer to the homes inside the ellipse than the corridor towers are. Closer means stronger received signal in the line-of-sight cells, which is exactly what Figure 5.2 shows. It does not mean newly reached cells.

10. Does this represent an actual increase in coverage?

The question admits three honest answers, depending on which definition of "coverage" is operative:

10.1 Coverage as the existence of usable cellular service

No meaningful increase. The applicant's Current Coverage map shows orange/yellow ("Outdoor" / "In-Vehicle" tiers under the applicant's own legend) across the target ellipse today. Those tiers are tiers of functional cellular service. Users within the ellipse can place voice calls, send and receive data, and operate connected applications today, on existing carrier infrastructure. This is the definition of coverage used by the FCC, by 47 U.S.C. §332, and by the Telecommunications Act §704 effective-prohibition framework. Under this definition, the proposed tower fills no gap.

10.2 Coverage as RSRP ≥ −85 dBm "Indoor" tier

Yes, a real increase within the ellipse. The Current Coverage map shows mostly sub-Indoor-tier RSRP across the target area. The Proposed Coverage map shows the new tower fills the inner ellipse with Indoor-tier RSRP. This is a legitimate observation about what the maps depict. It is also a discretionary observation — a higher RSRP threshold is a quality target, not a service threshold. A tower zoning decision rests on whether the area is presently served, not on whether reference-signal power within the area can be made stronger by adding more transmitters. By that logic the area could always justify another tower, regardless of present service quality.

10.3 Coverage as the geographic extent of any service

Inconclusive on the maps as submitted. The maps display different coverage extents outside the target ellipse, in a pattern inconsistent with the simple addition of a single transmitter. The differences cannot be attributed to the new tower's contribution and are most parsimoniously explained as artifacts of differing simulation parameters between the two model runs. Without the underlying parameter file, the two maps cannot be compared as a clean before-and-after demonstration. The viewshed analysis (§9) independently establishes that the proposed tower's reach footprint is contained within the reach footprint of the existing corridor towers, which means an honest geographic-extent comparison would show no increase even with consistent simulation parameters.

11. Synthesis: the comprehensive coverage-impact narrative

Pulling the elements together, the coverage-impact picture for CU-26-001 is as follows:

11.1 Service exists today

Four Verizon facilities operate within 5.71 miles of the proposed site, including two on the I-25/NM-165 corridor at 2.27 and 3.60 miles. The applicant's own propagation simulation (Figure 5.1) shows orange and yellow tier RSRP across the target ellipse from those existing facilities,

indicating “Outdoor” and “In-Vehicle” tier Verizon service today. The OpenSignal slides analyzed in the V2 memorandum (§4.5) show the applicant’s own real-time speed-test measurements of 44.5 Mbps Verizon downlink, 109.6 Mbps T-Mobile downlink, and 51 ms T-Mobile latency captured in the area. The area has cellular service.

11.2 The proposed tower’s reach is contained within existing reach

The Branum viewshed analysis (Figure 9.1) demonstrates that the geometric line-of-sight footprint from the proposed 75-foot tower at 221 NM-165 overlaps the line-of-sight footprint of the existing corridor towers. The proposed site does not illuminate terrain shadowed from the corridor; it illuminates the same line-of-sight cells more strongly. Areas presently shadowed by ridgelines remain shadowed.

11.3 The applicant’s evidence is internally inconsistent

The two propagation maps (Figures 5.1 and 5.2) display differences outside the target ellipse that are not physically attributable to the proposed tower. Either the simulation parameters differ between the two runs, the depicted frequency band differs, the loading assumptions differ, or the best-server selection rule differs. The maps cannot serve as a clean before-and-after comparison without disclosure of the underlying parameter file.

11.4 The justification has shifted from coverage to capacity, without supporting capacity data

The applicant’s deck slide 28 lists capacity rationales (additional bandwidth, better throughput, offload of surrounding sites) alongside coverage rationale, and slide 29 distinguishes the two: coverage is providing service where service does not exist; capacity is providing bandwidth to existing customers. As documented in the V2 memorandum (§8), the deck does not present capacity-utilization data for the four nearest Verizon sites — no PRB utilization curves, no peak-hour throughput, no attach failures, no congestion indicators. Capacity remediation has multiple alternatives that are not analyzed: sectorization upgrades, MIMO replacements, supplemental spectrum carriers, small cells, distributed antenna systems, Wi-Fi calling. None of these are addressed in the application.

11.5 What the proposed tower actually delivers

A signal-strength upgrade from “In-Vehicle” tier RSRP to “Indoor” tier RSRP for Verizon users in line-of-sight terrain inside the applicant’s target ellipse, in an area that already has Verizon service, in a footprint already reached by existing infrastructure. This is a quality refresh, plausibly part of a broader 4G to 5G technology and capacity refresh on the Verizon network in the I-25 corridor. It is not a coverage gap remedy under any engineering or regulatory definition of coverage.

12. Findings

- **Finding 1.** The applicant's two propagation maps demonstrate, within the target ellipse, a downlink RSRP upgrade from "Outdoor"/"In-Vehicle" tier service to "Indoor" tier service. The improvement is real for Verizon users in line-of-sight terrain near the new tower.
- **Finding 2.** The applicant's two propagation maps display differences outside the target ellipse that cannot be attributed to the new tower's physical contribution. The maps were not generated under identical simulation parameters and are not strictly comparable as a before-and-after demonstration.
- **Finding 3.** The threshold and color-scheme choices on the maps render "In-Vehicle" tier and weaker "Outdoor" tier RSRP in red and orange, the visual equivalent of "no service." This is a presentational choice, not an engineering finding. LTE service is routinely sustained at signal levels well below the applicant's −101 dBm "Outdoor" boundary.
- **Finding 4.** The line-of-sight footprint of the proposed 75-foot tower (per the independent Branum viewshed analysis) overlaps the line-of-sight footprint of the existing corridor towers. The proposed site does not extend cellular service into geography presently unreached.
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- **Finding 6.** The proposed tower delivers a signal-strength upgrade for Verizon users within an already-served area, not a coverage gap remedy. This is consistent with a capacity or quality refresh and is independently consistent with the application's mid-document shift from coverage to capacity rationale (V2 memorandum §8).
- **Finding 7.** No drive-test data, no call data record analysis, no capacity-utilization data for nearby Verizon sites, and no field-validated propagation comparison have been submitted. The maps stand alone as model output, with no measurement to anchor them.

13. Recommendations to the Commission

- **Recommendation 1.** Treat the two propagation maps as model output, not as field measurements. They do not establish that the area presently lacks cellular service.
- **Recommendation 2.** Require the applicant to produce, prior to a finding of completeness on the coverage element of CU-26-001:
    - the underlying propagation simulation project file (Atoll, Forsk, Mentum, or equivalent) for both the Current and Proposed scenarios, with parameter sets disclosed;
    - an explanation of the visible differences in coverage outside the target ellipse between the two maps;
    - the specific frequency band(s) and antenna pattern(s) modeled for each scenario;

  - carrier-conducted drive-test data (RSRP, RSRQ, SINR at GPS waypoints) supporting the propagation model;
  - call data record analysis from Verizon's network operations data showing dropped-call rates, handover failures, and access failures attributable to the alleged coverage condition;
  - capacity-utilization data for the four nearest Verizon sites (PRB utilization, peak-hour throughput, attach failure rate);
  - a Sandoval County-specific alternatives analysis addressing sectorization, MIMO upgrades, supplemental spectrum carriers, small cells, distributed antenna systems, and Wi-Fi calling at existing sites.
- **Recommendation 3.** Recognize that an "Indoor" tier RSRP upgrade within an already-served area is a discretionary quality target, not a regulatory coverage requirement. The Telecommunications Act §332/§704 effective-prohibition framework protects the existence of carrier service, not its signal strength tier.
- **Recommendation 4.** Read the propagation-map evidence in conjunction with: (i) the carrier-distance evidence (§8 above), (ii) the Branum viewshed analysis (§9), and (iii) the V2 memorandum on the broader applicant deck. No single piece of evidence is dispositive; together they establish that the area is presently served, that the proposed tower's reach is contained within existing reach, and that the application's coverage-gap demonstration does not survive technical scrutiny.

14. Limitations of this analysis

This memorandum interprets propagation-model output reproduced at scanned-document resolution. The following caveats apply:

- The Current and Proposed Coverage maps are pixel images. Without the underlying simulation parameter file, the specific cause of the asymmetric coverage shift outside the target ellipse cannot be determined with certainty. The presence of asymmetric shift is verifiable from the maps themselves; its cause is not.
- The qualitative descriptions in this memorandum (predominantly green, mostly orange, etc.) are interpretations of color tiles on a printed map. Quantitative pixel counts within tier boundaries would require access to the source GIS layers.
- The 3GPP RSRP performance benchmarks cited (−110 dBm typical data session, −115 to −118 dBm typical voice call) are values widely reported in 3GPP TS 36.101 and TS 36.133 and in carrier engineering documentation. Specific user experience varies with device, antenna implementation, channel bandwidth, modulation/coding scheme, and noise environment.
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it depict reflective multipath. In rugged terrain at 700–2100 MHz, line-of-sight is the dominant first-order propagation mode and the geometric viewshed is a defensible first approximation, but it is not a complete radio model.

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Attribution

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C. Edwin Garner, Ph.D.

46 Camino Barranca, Placitas, NM 87043

halifax_garner@yahoo.com

Sources cited: applicant's submitted RSRP — Current Coverage and RSRP — Proposed Coverage propagation maps; Biwabkos Consultants LLC RF Design Analysis (NM01-148 Spike / ABQ_TIERRA-MADRE Coverage Site, 30 slides); Pinnacle Consulting Development Narrative Report (09/30/2025); independent ArcGIS Pro viewshed analysis filed to the CU-26-001 record (J. Branum, March 2026); Verizon Wireless published coverage map at verizon.com/coverage-map; Technical Memorandum — Coverage Claims Analysis V2 (C. E. Garner, May 1, 2026); 3GPP TS 36.214 (Physical layer measurements); 3GPP TS 36.133 (Requirements for support of radio resource management); 3GPP TS 36.101 (LTE radio transmission/reception minimum performance).

This memorandum is provided to the Sandoval County Planning & Zoning Commission and to the Sandoval County Planning & Zoning Department for inclusion in the administrative record of CU-26-001.

May 18, 2026

Planning & Zoning Department
Attn: Interim Director Doraida Arias
Sandoval County Administration Building
1500 Idalia Road, Building “D” 2nd floor
Bernalillo NM, 87004

Re: Application CU-26-001

Dear Commissioners,

My Verizon work phone gets a perfect reception at 34 Ridge Road — where I would be looking directly at this tower if the application is approved. The application's own RF deck defines coverage as "where service does not exist." By that definition, I am not in a coverage gap. So I cannot square the maps with what I experience every day, and I am left wondering what, precisely, this tower is being built to fix.

The carrier my neighbors use for the best service in Placitas gets that service through small antennas mounted on existing infrastructure — utility poles and building facades — not through a new tower. Verizon has the same technology available. The County's rules ask the applicant to inventory existing towers AND other suitable structures within four miles, including exactly the kind of structures small cells use, and to conclusively demonstrate why none of them works. What the application contains is a slide deck of nearby towers. That is not the same as a conclusive inventory, and it does not address the small-cell path at all.

The application also has gaps I would want closed before any approval. The lot at Tierra Madre and NM-165 was zoned back in 2010 for a specific purpose — a shopping center — and the application treats it as plain CD-WP without engaging those more

specific rules at all. Those rules attach binding conditions to any development on this parcel: screening of mechanical equipment from the highway and from adjacent residential properties, landscaping requirements with automatic watering, and others. The proposed 8-foot coyote fence addresses the ground equipment, but a 75-foot structure above it is not screened by anything — and that is what neighbors and every driver on NM-165 will actually see. The application does not include a Zone of Visibility map or photo simulations from residential vantage points. It also does not include the FAA evaluation that determines whether any lighting is required at this height, so I cannot tell what the tower would look like after dark.

For three years I have looked out from my front porch at open desert terrain and single-story homes. That view from my porch — and the value of my home — reflects the place I chose. Once a tower like this is approved, federal rules require the County to approve certain future modifications without a full public process. This hearing is where the conditions get set, and on the record before the Commission, those conditions are not established. The application should be denied.

Sincerely,

_____

Terry MacIntyre
34 Ridge Rd
Placitas, NM

From: Theresa Hadden-Martinez
To: Doraida Arias
Subject: Opposition to CU-26-001
Date: Sunday, May 17, 2026 7:30:59 PM

Re: Application CU-26-001

Dear Members of the Sandoval County Planning and Zoning Commission,

This tower is not an improvement for my neighbors or my family. This is a business installation and it is proposed to be erected in a residential area. Accordingly I want to show what I have observed about how it got here and what it asks us to accept.

I moved to Placitas for more than 20 years ago so that I could enjoy the open desert that surrounds my property, for a landscape that has not been carved up by industrial structures and for the wild horses. What troubles me most is not just the tower itself, but what is not addressed in the application and how the applicant got to this site in the first place.

The applicant first tried the County Fire Station which is County-owned property. The County's own rules ranks it as the second-highest priority for a new tower. When that lease fell through over terms — not over any coverage or technical reason, just lease terms — the applicant jumped directly to a vacant lot in a residential-zoned area. That is 6th priority according to the County's own rules. I have not found in the application any documented review of the industrial or commercial categories that sit in between.

The application also lacks any real analysis of why the multiple existing towers standing within a few miles of here cannot accommodate what is needed. Technology exists that provides that capability.

The County's rules prohibit an applicant from using "this is the only site we could lease" as justification for skipping higher-priority locations. That language exists precisely because of this pattern. The applicant has the burden to show they looked at the right alternatives, and I do not see that burden has been met in the materials filed.

What also troubles me is that the application treats this parcel as plain zoning when

the County attached specific binding conditions to this exact lot when it zoned it for a shopping center in 2010. Those conditions require outdoor light fixtures to be limited to sixteen feet, shielded downward, with no spillage onto neighboring homes. The application does not tell me what type of lights they are planning to install on a 75-foot tower that will be on all night, or how aircraft warning lights — which by their nature are visible from above and the sides — could possibly comply with rules already in place. That is a gap the applicant has the burden to address and I do not see any explanation of how they plan to address this requirement in the materials.

Finally, what sits directly next to where this tower would be located is not vacant land. It is Homestead Plaza — a working community gathering place where people eat dinner outside, shop at the market, and listen to outdoor concerts on summer evenings. The restaurant's patio would sit directly underneath this 75-foot industrial structure. An industrial tower placed above where our community gathers is simply not compatible with what we have built in that space.

I am asking the Commission to deny this application.

Sincerely,

Theresa Hadden-Martinez
3 Sombra del Monte Rd
Placitas, NM

505-620-8940

From: Vicki Behrens
To: Planning and Zoning Main
Subject: Opposition to CU-26-001
Date: Sunday, May 17, 2026 10:08:32 PM

Re: Application CU-26-001

Dear Commissioners,

Seven years ago, my husband and I looked at homes throughout this region — the East Mountains, Corrales, Rio Rancho, parts of Albuquerque — but the moment we turned onto NM-165, the decision was made.We chose Placitas as our home because of the dark skies, beautiful views, peaceful atmosphere, and wonderful people. Our friends and neighbors feel the same way--and we all agree that a huge cell tower in the center of our community is inconsistent with the character of this area and would disrupt daily life for many of our neighbors, as well as affecting their property values and hugely detracting from the experience of gathering in the shopping center area for meals, coffee, and events. The needs of residents should come way before the desires of the entities that would profit from this project.

At the corner of Tierra Madre and NM-165, a 75-foot tower would be the tallest structure for a considerable distance in any direction, rising above every other structure. It would dominate the view for residents and visitors every day. The plan our community spent years writing to protect this place was built precisely around concerns like this — about what people see, what the character of the area remains, and what kind of development is appropriate for a semi-rural community the State has recognized as a culturally-significant landscape.

I'm concerned about how things will change at Homestead Plaza, the gateway to Placitas, if this tower goes in. My husband and I like to gather with friends there for dinner at Blades and to listen to summer concerts. The restaurant's outdoor seating would be directly below the proposed structure. The County's rules give it authority to deny a tower whose use conflicts with the character of a neighborhood. A working community gathering place sitting directly beneath an industrial structure is the perfect illustration of such a conflict.

The application itself raises questions I cannot find answers to in the materials filed. The RF compliance report is internally labeled with a California site name and uses rooftop-analysis language — "RoofView," "ROOF Area" — that has no apparent connection to a ground-mounted tower in New Mexico. The application treats the zoning here as plain CD-WP, without addressing the more specific rules the County adopted for this parcel when it zoned it for a shopping center in 2010; those rules attached binding development conditions, and the application doesn't engage with them. There is no FAA evaluation confirming what lighting, if any, the proposed height requires at this location. There is no setback diagram showing that the tower's distance from each abutting property line and from NM-165 meets the County's standard. On all of these points, the burden belongs to the applicant — and the materials filed don't close those gaps.

When my family chose Placitas, we accepted that the tradeoff for open sky and quiet nights was a longer drive and fewer amenities. That tradeoff is still worth it to us. What I am not willing to accept is a permanent industrial structure at the entry to our community that permanently alters the view, the character, and the property values of the homes around it. The Commission should deny this application.

Sincerely,

Victoria Behrens
20 Bluebird Rd
Placitas, NM

Brian Vogler
34 Ridge Rd.
Placitas, NM 87043

May 18, 2026

VIA HAND DELIVERY
AND EMAIL TO: P&ZMain@SandovalCountynm.gov

Sandoval County Planning and Zoning Department
c/o Doraida Arias, Interim Director
1500 Idalia Road, Building D
Bernalillo, NM 87004

Re: Opposition to Application CU-26-001—Proposed 75-foot wireless telecommunications tower at 221 NM-165, Placitas, NM 87043

Dear Chairman Trujillo and Members of the Commission:

I write in opposition to Application CU-26-001. I own property at 34 Ridge Rd., Placitas, within 1,500 feet of the proposed tower site. I received written notice of the May 19, 2026 public hearing as a landowner identified under Section [64] 18(A) of the Sandoval County Wireless Telecommunications Facilities Ordinance (the "Ordinance").

The Application fails multiple mandatory requirements of the Ordinance respecting the location of the proposed tower, the alternatives analysis, the setback, the substantive concealment design, and the community-character standards the County has adopted. Each failure independently bars approval as more fully explained in Section I below.

While the Commission has grounds and authority to deny the Application without opportunity for further development or correction,the Application, in its present form, cannot provide the substantial evidence the Commission requires to grant the Applicant a conditional use permit. Several mandatory submissions required by the Ordinance and the County's Macro Wireless Facilities Application Guidelines ("Application Guidelines") are missing or were written for the wrong tower location. Although the Commission should deny the Application for the reasons set forth in Section I, the Applicant should be directed to file a complete, amended Application that correctly describes and certifies a single, lawfully sited facility complete with all submissions required by the Ordinance and the Application Guidelines prior to any grant of a conditional use permit. The Application's incompleteness and documentation defects are set out in Section II below.

SUMMARY OF THE APPLICABLE LAW

An application for a wireless telecommunications tower must pass through three separate and cumulative layers of regulation: (1) the Sandoval County Wireless Telecommunications Facilities Ordinance (the "Ordinance"); (2) the Macro Wireless Facilities Application Guidelines ("Application Guidelines"), which clarify the Ordinance's submission requirements; and (3) the conditional-use standards imposed by Section 17(D) of the Sandoval County Comprehensive Zoning Ordinance ("CZO"). An applicant must pass through all three regulatory gates for approval to erect a telecommunications tower in Sandoval County.

The Ordinance requires the Applicant—not the Commission, the neighboring residents, or the County staff—to supply the evidence and documentation necessary to support approval of the permit. Section [65] 19(C) of the Ordinance states: "The burden of proof for the grant of the permit shall always be upon the Applicant." That burden, according to the Ordinance, is not merely to make assertions or submit conclusions, but to place into the record the materials, analyses, certifications, demonstrations, and factual showings the Ordinance requires. In order to approve an application, the Commission's decision must be in writing and supported by substantial evidence contained in the written record. Section [65] 19(C).

Where the Ordinance requires an applicant to submit a document, report, certification, or other material into the record, the absence of that material bars any finding that the requirement has been satisfied. An incomplete or internally contradictory application cannot supply the substantial evidence Section [65] 19(C) requires.

The Application Guidelines reinforce and expand the Ordinance's requirements. The Guidelines do not merely prescribe formatting or administrative procedure; they specify substantive submissions the County requires before a wireless telecommunications facility application may be considered complete. For example, the Guidelines require detailed written analyses respecting alternative-site selection, technological necessity, visual impact, acoustics studies, ownership authorization, and other matters the Ordinance requires for approval. Mere assertions without full explanations are insufficient where the Ordinance or Application Guidelines require a demonstration, explanation, or detailed account.

In this case, the Application is for a 75-foot industrial tower in an area that is zoned Residential, and the Ordinance is extremely protective of areas zoned Residential. Before an applicant is permitted to built a tower in a residential area, the applicant must exhaust every alternative in the following order:

1. The applicant must pursue existing towers or structures, then
2. County-owned property, then
3. Property in areas zoned Heavy Industrial, then
4. Property in areas zoned Commercial, and finally
5. Property in areas zoned Agricultural.

Only after all these alternatives have been exhausted may a property in areas zoned Residential be considered for a telecommunications tower. Even then, the Ordinance requires the Applicant to provide a detailed, written explanation as to why it selected property in a Residential area over existing towers and structures, County-owned property, property in areas zoned Heavy Industrial, property in areas zoned

Commercial, and property in areas zoned Agricultural, in order to justify selecting property in an area zoned Residential.

After giving its detailed, written explanation as to why a site in any of the five higher-priority areas was not selected, the applicant is required to demonstrate the reasons why a permit should be granted in a residential area and demonstrate the hardship the applicant would suffer if its tower could not be built in that residential area.

Just in case there was any doubt, the Application Guidelines make clear that the applicant cannot merely assert that one of the higher-priority areas was "unacceptable, infeasible, or unavailable." The applicant's explanation must include a "meaningful comparative analysis and such technical information and other factual justification as are necessary to document the reasons why each [higher-priority] site is unacceptable, infeasible, unavailable or not in accordance with the standards in the County Code."

Even if the applicant somehow demonstrates greater hardship than the community would face, and even if it can justify its selection of a residential area for its tower over all five higher-priority alternatives, Section [55] 9(F)(2) gives authority to the County to deny the application if it conflicts with the historic nature or character of a neighborhood.

After the applicant has satisfied all the requirements of the Ordinance and Application Guidelines, the Commission considers the usual elements for a conditional use permit. A conditional use is defined by the Comprehensive Zoning Ordinance as "a use that may be or become a nuisance or hazard to neighboring properties if proper safeguards are not taken." CZO Section 6 ¶ 19. The Zoning Ordinance provides: "The Zoning Commission shall not approve any conditional use unless satisfactory provision has been made concerning ... (4) The economic, noise, glare, or odor effects of the conditional use on adjoining properties; (5) The general compatibility of the proposed use with actual or prospective permissive use of adjacent properties; and (6) The overall health and safety of the community." CZO Section 17(D).

This matter is not an ordinary conditional-use request supported by generalized testimony, expressions of need, or preference for a particular site. The Telecommunications Ordinance requires the Applicant to place into the written record the analyses, explanations, technical materials, and factual showings necessary to justify constructing a 75-foot industrial telecommunications tower in an area zoned Residential notwithstanding five more suitably zoned alternatives the the Applicant was required to pursue first. The Commission's authority to approve the Application exists only if those required showings are actually contained in the record and supported by substantial evidence. Where required explanations are absent, where factual showings are unsupported, or where the record does not establish compliance with every mandatory requirement of the Telecommunications Ordinance, the Application Guidelines, and Section 17(D) of the CZO, the Application cannot lawfully be approved.

Section I. THE APPLICATION SHOULD BE DENIED

I.A. The Applicant skipped mandatory collocation alternatives, County-owned property, areas zoned Heavy Industrial, areas zoned Commercial, and areas zoned Agricultural, all in preference of the lowest priority site (Residential) without the showing Section [55] 9 requires, and a less-intrusive alternative (small cells) is already deployed and working in Placitas.

Section [55] 9(A) sets a mandatory priority order for the location of Wireless Telecommunications Facilities. The Ordinance lists six priorities, with existing towers at the top:

> Applicants for Wireless Telecommunications Facilities shall locate, site and erect said Wireless Telecommunications Facilities in accordance with the following priorities in each of the Telecommunications Districts, one being the highest priority and six being the lowest priority.
>
> (1) On existing Towers or other structures without increasing the height of the tower or structure;
> (2) On County-owned properties;
> (3) On properties in areas zoned for Heavy Industrial use;
> (4) On properties in areas zoned for Commercial use;
> (5) On properties in areas zoned for Agricultural use;
> (6) On properties in areas zoned for Residential use.

The proposed site is on property in an area zoned Residential in the West Placitas Community District (CD-WP). The Applicant was negotiating a lease in a Priority 2 area, which was abandoned.

1. The Applicant was negotiating a lease on a Priority 2 site, the Sandoval County Fire Station.

The Tower Application Correspondence file confirms that the Applicant originally pursued a County-owned site. Pinnacle Consulting paid the $5,000 application fee and the $8,500 escrow on APN 1025073080120, identified in the Applicant's own refund request as "Owner: Sandoval County, NM." (Curiel email, October 11, 2023.) That site was abandoned for the single reason stated in writing: "Unfortunately, we were not able to finalize a lease agreement." (Id.) The Applicant then submitted the current Application for Candidate B—a Priority 6 location in an area zoned Residential two miles west of the Fire Station.

2. Section [55] 9(B) requires a detailed explanation and a hardship showing. The Application has neither.

Section [55] 9(B) provides:

> If the proposed site is not proposed for the highest priority listed above, then a detailed explanation must be provided as to why a site of a higher priority was not selected. The person seeking such an exception must satisfactorily demonstrate the reason or reasons why such a permit should be granted for the proposed site, and the hardship that would be incurred by the Applicant if the permit were not granted for the proposed site.

The provision imposes two mandatory showings: a detailed explanation, and a satisfactorily demonstrated hardship. The record contains neither. The Applicant's explanation for abandoning the Priority 2 Fire Station site is one sentence: "we were not able to finalize a lease agreement." That is a conclusion without facts. The Application does not identify which lease terms could not be agreed, what efforts the Applicant made to bridge the gap, or what the County's position was. "Inability to agree to lease terms" is not a detailed explanation; it is a sentence.

The hardship showing is missing entirely. The Application contains no submission that the Applicant would suffer hardship if denied the proposed Priority 6 site. There is no analysis of what coverage the Applicant could or could not provide without this tower, no analysis of the cost of alternatives, no comparative analysis of any kind. Section [55] 9(B) requires the Applicant to "satisfactorily demonstrate" the hardship. The Applicant has not attempted the demonstration.

3. Section [55] 9(C) prohibits exactly the bypass the Applicant has performed.

Section [55] 9(C) is express:

> An Applicant may not by-pass sites of higher priority by stating the site proposed is the only site leased or selected. An Application shall address collocation as an option. If such option is not proposed, the applicant must explain to the reasonable satisfaction of the County why collocation is Commercially or otherwise Impracticable.

The Applicant attempted to lease a Priority 2 site. The Applicant did not succeed. The Applicant then leased a Priority 6 site. The structural posture of this Application is exactly what Section [55] 9(C) forbids: bypassing higher priority on the basis of which site the Applicant ultimately leased. The Application also fails to address Priority 1 (existing towers), Priority 3 (Heavy Industrial); Priority 4 (Commercial), and Priority 5 (Agricultural) as alternatives to a Residential community.

4. Section [55] 9(E) requires a written priority-order report. None has been submitted.

Section [55] 9(E) provides:

> The Applicant shall submit a written report demonstrating the Applicant's review of the above locations in order of priority, demonstrating the technological reason for the site selection. If appropriate, based on selecting a site of lower priority, a detailed written explanation as to why sites of a higher priority were not selected shall be included with the Application.

"Shall submit a written report." The Application does not contain one. The closest substitute in the materials is the one-sentence reference to the Fire Station lease failure in the Tower Application Correspondence file. That is not the written report Section [55] 9(E) requires. The 9(E) report is a separate, organized submission demonstrating priority-order review. Its absence is its own mandatory-provision failure.

5. The Applicant cannot demonstrate hardship in any event: a less-intrusive alternative, small cells, is already deployed and working in Placitas.

Even setting aside the documentation defects in subheads 1 through 4, the underlying premise of the Application—that a 75-foot macro tower is necessary to serve the area—is contradicted by the carriers' own deployed infrastructure. Verizon already operates small cells in Placitas. T-Mobile uses them in greater density. Small cells are microwave-sized devices mounted on utility poles, electric poles, homes, and water towers. They are virtually invisible to residents. They are not new technology; they are the standard tool wireless carriers use to fill coverage gaps in residential areas.

Drive testing in Placitas using G-NetTrack Pro along La Mesa, Sundance Mesa, Anasazi, Petroglyph Trails, Homesteads, Placitas West, NM-165 to the S curve, and Vista del Oro establishes two facts on the ground. First, the Application's representation that there is no Verizon service in the area is false; Verizon signal was measured across the entire drive, with one dropped call at the lowest point on Camino Barranca. A live Verizon voice call held the entire route. Second, T-Mobile signal, supported by small cells rather than a tower, was stronger across most of the same area.

The implication for the Section [55] 9(B) hardship requirement is direct. The hardship the Applicant must satisfactorily demonstrate is hardship that would result from denial of a conditional use permit on this Priority 6 location. Where a less-intrusive technology is already deployed and working in the very community at issue, the tower is not necessary, and denial of the conditional use permit imposes no hardship. The Stealth definition in Section [51] 5. ¶ 24—"using the least visually and physically intrusive facility that is not technologically or commercially impracticable"—points the same direction. Small cells are not technologically impracticable; they are deployed in Placitas. They are not commercially impracticable; major carriers, including Verizon, use them every day. The proposed 75-foot tower is therefore not the least visually and physically intrusive option.

6. Section [55] 9(D) closes the discretionary path. The Commission cannot make either finding it requires.

Section [55] 9(D) provides:

> Notwithstanding the above, the County may approve any site located within an area in the above list of priorities, provided that the County finds that the proposed site is in the best interest of the health, safety and welfare of the County and its inhabitants and will not have a deleterious effect on the nature and character of the community and neighborhood.

Section [55] 9(D) is conditional approval. The County "may approve" only if it "finds" two things by substantial evidence in the record: (i) that the proposed site is in the best interest of the health, safety, and welfare of the County and its inhabitants; and (ii) that the proposed site will not have a deleterious effect on the nature and character of the community and neighborhood. Both findings must be supported by substantial evidence in the record. Section [65] 19(C).

The record cannot support either finding. The Applicant has not made a health-and-safety showing: there is no analysis in the Application of fall-zone risk to neighboring residences or NM-165, no analysis of cumulative RF exposure (the RF Report certifies the wrong site, as set out in Section II.G), and no analysis of how the proposed tower would interact with the rural-residential pattern around it. As to the second finding—no deleterious effect on the nature and character of the community—the analysis in Section I.B sets out at length why the proposed 75-foot, burgundy, 18-foot-diameter shrouded tower at the gateway to West Placitas does have a deleterious effect on the character of the community. The Commission cannot affirmatively find what the record contradicts.

7. Conclusion.

Section [55] 9 contains four mandatory provisions on which the Application fails: 9(B) (detailed explanation and hardship), 9(C) (no bypass), 9(D) (conditional findings), and 9(E) (written priority-order report). The Applicant's burden under Section [65] 19(C) cannot be carried on this record. The Application should be denied.

I.B. The proposed tower conflicts with the rural-residential nature and character of Placitas. Section [55] 9(D), 9(F)(2), [47] 1, and [52] 6 of the Ordinance, and the Placitas Area Plan, all militate against approval.

The Commission may approve the Application only if it finds, on substantial evidence in a written record, that the proposed site (i) "is in the best interest of the health, safety and welfare of the County and its inhabitants" and (ii) "will not have a deleterious effect on the nature and character of the community and neighborhood." Section [55] 9(D). The Commission's decision, whether approval or denial, "shall be supported by substantial evidence contained in a written record." Section [65] 19(C). "The burden of proof for the grant of the permit shall always be upon the Applicant." Id.

Section [55] 9(F)(2) supplies an additional, independent ground for denial — "Conflict with the historic nature or character of a neighborhood or historical district." Section [52] 6(4) lists, as a Purpose of the Ordinance:

> encouraging...placement, height and quantity of Wireless Telecommunications Facilities in such a manner, including but not limited to the use of stealth technology, to minimize adverse aesthetic and visual impacts on the land, property, buildings, and other facilities adjacent to, surrounding, and in generally the same area as the requested location....

And Section [47] 1 declares the Ordinance's overarching legislative intent to "minimize the negative impact of Wireless Telecommunications Facilities" and to "protect the health, safety and welfare of the County of Sandoval."

The "nature and character" the Commission must find unaffected under Section [55] 9(D) is not abstract. It is policy this County itself adopted by resolution. On April 16, 2009, the Sandoval County Board of County Commissioners adopted the Placitas Area Plan by Resolution No. 4-16-09.8C "to guide Sandoval County policy as well as to develop land use regulations that protect the unique qualities of the Placitas Area." The Resolution further records that the PAP "was developed as a community-based plan with involvement and input from Placitas community members." The Applicant's burden under Section [65] 19(C) is therefore to produce substantial evidence on which the Commission can find that the proposed tower will not have a deleterious effect on a community whose nature and character the County has already, by resolution, defined.

The proposed tower would sit at the gateway to NM-165 east of I-25, within the West Placitas Residential District (the "WPRD") the PAP creates, immediately adjacent to Tierra Madre — one of five subdivisions the PAP names by name (PAP, p. 34) as exemplifying the architectural pattern the WPRD exists to preserve. The PAP's existing-conditions discussion of West Placitas is unambiguous: "homes in formal subdivisions are guided by design covenants that only allow construction that follows a southwestern or pueblo vernacular with an earth toned color pallet. This land use type is typical of Diamond Tail, Anasazi Trails, The Overlook, Tierra Madre and Placitas Trails." The PAP's WPRD recommendations (p. 43) commit the County to "[d]evelop guidelines in the area to encourage consistency of the existing architec-

tural vernacular." Sherwin Williams "Brandywine" SW 7710 is a deep burgundy. It is not earth-toned. An 18-foot-diameter, 75-foot-tall painted cylinder is not the southwestern or pueblo vernacular. The proposal departs from the WPRD architectural standard in every variable the standard describes.

The PAP's viewshed protection (p. 44) is equally clear: "Slope and Ridge Top Development: A major area of concern to many Placitas residents was the protection and preservation of natural views and the cultural landscape qualities of the area. Zoning code should be amended to provide adequate setbacks and building height standards to preserve view-sheds when possible." The Applicant's own pre-application correspondence (see Section I.E.3 below) records that the proposed location was chosen because it preserved the landowner's southward mountain views from the parcel for "future development." The tower preserves no viewshed — it eliminates the gateway viewshed onto NM-165 from every direction other than the landowner's own.

The PAP's Night Sky Protection recommendation (p. 63) adopts the Jemez Valley criteria, described by the County as "more enforceable than the New Mexico Night Sky Protection Act." Those criteria require that outdoor light fixtures be shielded, that "all light [be] focused downward," that emitted light be confined "within the boundary of the property from which it originated," and that "[o]utdoor light fixtures shall be limited to sixteen (16) feet in height." Any FAA-required tower lighting at 75 feet would be approximately five times the PAP's height limit; any unshielded equipment-compound lighting on the 40-by-40-foot pad would defeat the downward-focus and on-property-confinement standards.

The PAP's commercial-development standards are equally on point. Although the parcel is residentially zoned, the proposed use is unambiguously industrial: the Lease is a commercial lease for an industrial application, the operator is Sun State Towers, and the tower exists to provide Verizon network capacity. The PAP's recommendations for non-residential development in West Placitas (PAP, pp. 52–54), accordingly, bear on whether this commercial installation is consistent with the character the PAP exists to preserve. The PAP records the County's position directly: "Sandoval County does not support extended linear commercial land uses because of the negative impact on rural community aesthetics." The PAP's substantive non-residential design recommendations are: a "maximum floor area for rural non-residential structures"; "[a] maximum lot build out of 50% of lot area"; "general design standards that promote consistency with existing architectural style"; "screening of mechanical equipment and waste collection facilities"; and "landscape buffering between rural commercial uses and residential uses which might incorporate such features as berms, walls, and landscaping." The proposal satisfies none of these. The 75-foot vertical structure has no analog in any rural-commercial node identified anywhere in the PAP. The 8-foot Coyote fence does not screen the H-frame utility rack, pad-mounted transformer, or equipment cabinets, all of which would be visible from NM-165 and from abutting parcels. There is no landscape buffering. The Application contemplates no architectural consistency with the existing development.

The PAP's Generalized Plan Goals (pp. 38–39) state, among others, that the Plan shall "protect the existing semi-rural character of the Placitas region and the character and the identity of specific neighborhoods"; that "Large big-box retail and franchise businesses are not appropriate for the Plan area"; that the County shall "[p]reserve the current lifestyle and historic nature and character of the Plan area"; and that "Placitas plan residents support the protection of 'dark skies.'" If a one-story franchise retail building is too far outside the rural character of the area, a 75-foot painted cylinder is not within reach of any comparison.

The Applicant has not produced—and on this record cannot produce—substantial evidence on which the Commission could find that the proposed tower will not have a deleterious effect on the nature and character of the community and neighborhood. The County's own formally adopted definition of that nature and character, the Placitas Area Plan, contradicts the proposal on virtually every page that touches the West Placitas area. The affirmative findings Section [55] 9(D) requires before any permit may issue are therefore unsupported, and Section [65] 19(C) forecloses approval on the present record. Section [55] 9(F)(2) supplies an additional, independent ground for denial on the same character question. And the Commission cannot make the mandatory findings Section 17(D)(4), (5) and (6) of the Comprehensive Zoning Ordinance require for any conditional use— "the economic, noise, glare, or odor effect of the conditional use on adjoining properties"; "the general compatibility of the proposed use with actual or prospective permissive use of adjacent properties"; and "the overall health and safety of the community"—on the same record. The Application should be denied.

I.C. The Application contains false or misleading statements that paper over failures to satisfy mandatory provisions of the Ordinance. The Commission cannot lawfully approve the Application on a record that lacks the substantial evidence Section [65] 19(C) requires. Section [53] 7(B) supplies an additional, independent ground that authorizes denial without further consideration.

The Applicant carries the burden of proof on every requirement of the Ordinance. Section [65] 19(C). Any decision granting the permit "shall be supported by substantial evidence contained in a written record." Id. Where the document the Applicant submitted to satisfy a mandatory requirement contradicts itself, or contradicts the Applicant's own other attachments, that document is not substantial evidence to support the granting of a permit. Section [65] 19(C).

Section [53] 7(B) supplies an additional and independent ground for denial: a false or misleading statement in the Application subjects the Applicant to denial without further consideration or opportunity for correction. Section [53] 7(M) completes the point: "[a]ny and all representations made by the Applicant to the County on the record during the Application process" are part of the Application. The Applicant cannot insulate a misleading statement by characterizing it as commentary or background.

The Application contains five false or misleading statements, each papering over a failure to satisfy a mandatory provision of the Ordinance.

1. The Application identifies the wrong location for the proposed tower.

The Ordinance separately requires the Application to identify the location of the proposed Tower for purposes of Section [53] 7(F)(7)–(9), 7(F)(20), 7(K), and 7(Y). None can be satisfied on a record where the Applicant has, in effect, identified two different locations. The mandatory location-dependent provisions are unmet, and the substantial evidence required to find them met is not in the record. (Section II.B treats the location problem in detail.)

Every site-specific document in the Application that identifies the southwest corner of the parcel as the proposed tower location is based on the same false representation, including the Application Cover Page coordinates (35.309466° N / -106.495432° W), the Applicant's pre-application emails of May 31, 2024, the Development Narrative Report, the Aerial Photo Map labeled "Candidate B," the Lease Site Plan and the metes-and-bounds Lease Area, Access & Utility Easement, and 10-foot Utility Easement descriptions

on Sheet LS-2, the engineered drawing set (Sheets T-1, LS-1, LS-2, and Z-1 through Z-6), the four photo simulations dated May 8, 2024, the Biwabkos RF Compliance Report (Section 3.1, page 6), the Biwabkos Coverage Analysis "Proposed Site" slide and inter-tower distance tables, the ASCE Hazards Report, and the Vector Structural Engineering calculations.

The two corners are acres apart and do not constitute the same site. Whichever site the Applicant in fact intends, the Application's consistent identification of the other is misleading.

2. The Lease misrepresents that Racquel Huslig had authority to lease the parcel.

The Applicant's Lease Agreement for the site on the southwest corner is signed by "Racquel Huslig, an unmarried woman," as Landlord ("Ms. Huslig"). Ms. Huslig warrants in Section 9(e) of the Lease she "has good and marketable fee simple title to the Site, the Property and any other property across which Landlord may grant an easement to Sun State...." Contrary to her representation in the Lease, Ms. Huslig does not own the Site or the Property. Rather, she holds an equitable interest in the form of a real estate contract, a copy of which is attached hereto as Attachment 1 ("Real Estate Contract"). Beyond Section 9(e), Section 9(a) of the Lease falsely warrants that the Landlord has "the full right, power, and authority to execute this Prime Lease," and Section 9(c) falsely warrants that the Property "is not presently subject to an option, lease or other contract which may adversely affect Landlord's ability to fulfill its obligations under this Prime Lease." Paragraph 6 of the Real Estate Contract requires the McCallisters' prior written consent before any "sale, assignment, conveyance or encumbrance of all or any portion of Buyer's interest in this Contract or the Property"; no such consent appears in the Application. (Section II.C develops these and the additional Section 9 breaches in detail.)

The Applicant's own pre-application emails confirm that Huslig was not the owner when the Lease was signed. Pinnacle's Chris Curiel wrote to County staff on May 31, 2024 that the project team "Started reviewing sites with Judy and Orville almost a year ago, then were passed to Racquel Huslig, the new owner." On May 29, 2024, Curiel wrote that "we are close to finalizing our lease agreement with the owner, Racquel Huslig (she is in contract with Judy / Orville)." "In contract" is not "owner." The same pre-application packet contains two additional Curiel representations to the County treating Huslig as the owner: the "Property Details" header block of a separate Curiel email reads "Owner: Racquel Huslig / Judy & Orville McCallister," listing Huslig first and labeling both as "Owner" without distinction; and the Applicant's annotation on its alternative-site map (Pinnacle Consulting packet, p. 20) records Huslig's rejection of an alternate location as "OWNER DID NOT APPROVE." The false identification is therefore not confined to the Lease; it is repeated by the Applicant in writing to County staff four separate times.

Section [53] 7(F)(3) requires the Application to identify "the property owner." "Shall" governs that requirement. The person identified as owner in the Lease is not, on the Applicant's own records, the owner. The mandatory identification under Section [53] 7(F)(3) is unmet. (Section II.C treats the underlying site-control defect.)

3. The Biwabkos NIER certification identifies the wrong site.

The Applicant submitted an RF Compliance Report prepared by Biwabkos Consultants, LLC to satisfy the National Institute of Environmental Research ("NIER") certification requirement of Section [53] 7(F)(17). The first sentence of the Report's Executive Summary, on page 5, says: "This report provides

the results of an RF power density analysis performed for Pinnacle Consulting at site Tenaya (CA700867).” Tenaya is a different site, and CA700867 is a California site identifier. The proposed facility is identified throughout the Application as ABQ Tierra Madre, NM01-148 Spike, 221 NM-165, Placitas, New Mexico. The Report’s Site Description on page 6 does identify the correct New Mexico location, but the certifying language on page 5—the language the Commission would actually rely upon—describes the wrong tower.

Section [53] 7(F)(17) requires “[c]ertification that the NIER levels at the proposed site are within the threshold levels adopted by the FCC.” A certification whose operative passage identifies the wrong facility does not certify the proposed site and fails to provide the substantial evidence Section [65] 19(C) requires before any permit may issue.

4. The Project Description denies that the facility will emit any noise; the Application’s own Noise Study admits the contrary.

The Development Narrative Report, which the Applicant submitted as its Project Description, is dated September 30, 2025 and signed by Scott Quinn, Site Acquisition Manager, Pinnacle Consulting, Inc. At page 3, under the heading “Relationship to Surrounding Properties,” the Project Description represents that “the facility will not emit odor, dust, gas, noise, vibration, smoke, heat or glare.” The representation is categorical; it carries no time-of-day qualifier, no distance threshold, no compliance metric, and no operational-scenario distinction.

The Applicant’s own Acoustics Group, Inc. Noise Study, dated September 29, 2025, predicts thirty decibels A-weighted at the nearest residential property line to the west of the proposed Site, from RF cabinet operation alone, twenty-four hours a day, year-round (Noise Study, Table 4, p. 9). The Noise Study further admits, in its Impact Assessment at page 9, that the proposed tower will be “barely noticeable during the quietest night time hour” at that boundary. The Project Description representation and the Noise Study prediction cannot both be true. By Section [53] 7(M) of the Ordinance, all representations on record are part of the Application; the Project Description’s categorical denial of noise emission is therefore an Application representation. The Applicant has placed a categorical denial of noise emission into the record and supplied the contradiction in the same packet. The Commission has no substantial evidence reconciling the contradiction, and Section [65] 19(C) forecloses approval on the resulting record. Section [53] 7(B) authorizes denial as an additional, independent ground “without further consideration” of the Application. (Section II.J develops the noise issue in detail.)

5. The Coverage Analysis represents that no Verizon coverage exists in the project area; the Applicant’s own stated objective and actual measurement contradict that representation.

The Applicant’s RSRP – Current Coverage map (Coverage Analysis, p. 11) shades the project-area ellipse—the area where the proposed tower would sit—as white. On the map’s own legend, white means signal below –101 dBm, below the lowest defined category (“Outdoor”). The Applicant’s submitted propagation study thus represents that current Verizon coverage does not exist in the project area. That representation is contradicted by the Applicant’s own other materials in two places. First, slide 3 of the Biwabkos RF Design Analysis identifies the project’s stated objective entirely as capacity, and slide 2 of that same analysis defines capacity as “providing bandwidth or processing capacity to service the cus-

tomers in the area"—a definition that on its face presupposes that service exists. The Applicant cannot consistently claim a capacity project on a record that admits no coverage. Second, the drive-test measurements along NM-165 in the project area, and the sustained live Verizon voice call across that same area, refute the no-coverage representation directly. See Section II.E below. Section [53] 7(B) supplies an additional, independent ground that authorizes denial without further consideration.

6. The five misrepresentations independently support denial.

Each of the five statements above is a false or misleading statement in the Application. Each also papers over a failure to meet a mandatory provision of the Ordinance—the location-dependent provisions for the first misrepresentation, the property-owner identification required by Section [53] 7(F)(3) for the second misrepresentation, the NIER certification required by Section [53] 7(F)(17) for the third misrepresentation, the acoustic analysis required by Section XI of the Application Guidelines for the fourth misrepresentation, and the documentation of need and propagation study required by Section [53] 7(F)(1) for the fifth misrepresentation. A mandatory requirement is not satisfied by a representation that the Applicant's own attachments contradict. There is no substantial evidence on which the Commission can find any of those mandatory provisions met. Approval on the present record would be inconsistent with Section [65] 19(C). And Section [53] 7(B) authorizes denial as an additional, independent ground "without further consideration" of the Application.

I.D. The setback required by Section [61] 15 is not satisfied at the location identified in the Application. The Applicant acknowledged the deficiency in its own pre-application correspondence.

Section [61] 15(A) of the Ordinance imposes a mandatory minimum setback:

> All proposed Towers and any other proposed Wireless Telecommunications Facility structures shall be set back from abutting parcels, recorded rights-of-way and road and street lines by the greater of the following distances: A distance equal to the height of the proposed Tower or Wireless Telecommunications Facility structure plus ten percent (10%) of the height of the Tower or structure, or the existing setback requirement of the underlying zoning district, whichever is greater.

The proposed Tower is 75 feet tall. The Section [61] 15(A) minimum is therefore 75 + 7.5 = 82.5 feet from every abutting parcel line, recorded right-of-way, and road and street line—or the underlying residential setback if greater.

The Applicant's own pre-application correspondence concedes the setback is not met at the proposed location. Page 30 of the email chain describes Candidate B—the proposed site—as having a 40-foot setback that "Meets Fall Zone setback within property lines" but "Needs Setback Reduction Zoning Approval." A 40-foot setback is less than half of the 82.5-foot Section [61] 15(A) minimum. The Applicant knew the setback was not met when the Application was filed.

The Application contains no setback-reduction application, no public notice for a setback variance, no findings supporting a reduction, and no record on which the Commission could grant one. Section [61] 15 contains no mechanism for the Commission to grant a reduction within the conditional use permit

process. The Applicant cannot ask the Commission to issue a conditional use permit at a setback distance the Applicant itself acknowledged was deficient.

Should the Applicant point to the northeast-corner balloon test as evidence of a different proposed location with a more favorable setback profile, that argument points only deeper into the location problem treated in Section II.B. No site plan, no setback table, and no documentation of distances to abutting parcels or rights-of-way has been submitted for the northeast corner. The Applicant has not carried its Section [65] 19(C) burden for either location.

There is no substantial evidence on which the Commission can find Section [61] 15 satisfied, and without that finding, approval cannot stand under Section [65] 19(C). Section 17(D)(6) of the Comprehensive Zoning Ordinance separately bars approval: a 75-foot monopole sited inside its own fall zone cannot be reconciled with the "overall health and safety of the community" finding Section 17(D) requires for any conditional use. The Application should be denied.

I.E. The proposed concealment design fails the substantive requirements of Section [53] 7(P), Section [53] 7(O), Section [58] 12(B), and the Section [51] 5. ¶ 24 "Stealth" definition. It is not the least visually and physically intrusive facility, and it does not harmonize with the natural surroundings of Placitas.

The Ordinance imposes mandatory substantive concealment requirements, independent of any documentation requirement. Section [53] 7(P):

> Both the Wireless Telecommunications Facility and any and all accessory or associated facilities shall maximize the use of building materials, colors and textures designed to blend with the structure to which it may be affixed and/or to harmonize with the natural surroundings, this shall include the utilization of stealth or concealment technology as may required by the County.

Section [53] 7(O):

> All Wireless Telecommunications Facilities shall contain a demonstration that the Facility be sited so as to be the least visually intrusive reasonably possible and thereby have the least adverse visual effect on the environment and its character, on existing vegetation, and on the residences in the area of the Wireless Telecommunications Facility.

Section [58] 12(B):

> Towers shall be galvanized and painted with a rust-preventive paint of an appropriate color to harmonize with the surroundings and shall be maintained in accordance with the requirements of this Ordinance.

Section [51] 5. ¶ 24 of the Ordinance defines "Stealth" as "using the least visually and physically intrusive facility that is not technologically or commercially impracticable under the facts and circumstances."

The Applicant must show that the proposed Facility harmonizes with the natural surroundings, is the least visually intrusive reasonably possible, is painted "an appropriate color to harmonize with the sur-

roundings," and qualifies as Stealth under the Ordinance's own definition. On the present record, the Applicant has not made any of those showings.

1. Color. Brandywine SW 7710 does not "harmonize with the natural surroundings."

The Applicant proposes a 75-foot monopole encased in an 18-foot-diameter concealment shroud running from approximately 55 feet to 75 feet above ground level. The shroud is specified to be painted Sherwin Williams "Brandywine"—SW 7710—a deep burgundy. The color spec is set out in the structural callout on slide 19 of the Coverage Analysis: "NEW 18′-0″Ø CONCEALMENT SHROUD PAINTED SHERWIN WILLIAMS 'BRANDYWINE' - SW 7710."

The surroundings of Placitas are predominantly tans, sages, buff, weathered wood, adobe, juniper green, and red-rock tones. The Applicant's own site photographs document this palette in views from the parcel. The Placitas Area Plan ("PAP") confirms it. The PAP describes the Plan area's topography as "rolling hills with cuts of drainage ways supporting woodland vegetation such as juniper, piñon, various chamizos, and buffalo grass" (PAP, p. 27). The PAP's recommendations for the West Placitas Residential District—the district in which the parcel sits—state that "homes in formal subdivisions are guided by design covenants that only allow construction that follows a southwestern or pueblo vernacular with an earth toned color pallet" (PAP, p. 34). The Applicant's zoning excerpts confirm that the parcel is governed by the West Commercial Overlay within the West Placitas area, and the Application Cover Page (p. 1) records the zoning as "CD-WP."

Sherwin Williams "Brandywine" SW 7710 is a deep burgundy. It is not part of the earth-toned palette the PAP identifies as the architectural standard of West Placitas. It does not harmonize with juniper, piñon, buff sand, adobe, or red rock. It is a wine color. A 75-foot, 18-foot-diameter burgundy cylinder at the gateway to Placitas does not satisfy Section [53] 7(P) or Section [58] 12(B). The Applicant's own characterization of the design as a "rustic shroud" does not change the operative color spec, which is Brandywine.

2. Diameter and design. The 18-foot shroud is not the "least visually and physically intrusive" facility within the meaning of Section [51] 5. ¶ 24 and Section [53] 7(P).

Section [51] 5. ¶ 24 of the Ordinance defines "Stealth" as "using the least visually and physically intrusive facility that is not technologically or commercially impracticable under the facts and circumstances." An 18-foot-diameter concealment shroud, twenty feet tall, is not "the least visually and physically intrusive" anything. The Applicant has not shown that a smaller-diameter shroud, a different concealment technology, or a different color is technologically or commercially impracticable. The burden under Section [65] 19(C) is on the Applicant. That burden has not been met.

3. Section [53] 7(O) is unmet on the merits.

Section [53] 7(O) requires the Application to contain "a demonstration that the Facility be sited so as to be the least visually intrusive reasonably possible." Applicant's emails show that the proposed location was not chosen because it would be the least visually intrusive. It was chosen because the landowner preferred it "for future development and less view interruption to the south." An alternative location on the same parcel that met the Section [61] 15 setback was rejected because it would "Disrupt Views to the Mountains (southward) and affect[] Future Development." Section [53] 7(O) requires the demonstration

to be about the visual impact of the facility on the surrounding community—not about preserving views from the parcel for future development.

The Application also contains no comparative visual analysis of design alternatives: no analysis of a shorter tower, no analysis of a smaller-diameter shroud, no analysis of an alternative color palette, and no analysis of an alternative concealment technology. The Section [53] 7(O) demonstration is absent.

4. The County's own pre-application consultant questioned the proposed stealth design.

The pre-application email chain attached to the Application includes a message from Robert Naumann, the County's telecommunications consultant. Naumann observed of the proposed site that "This site is considerable more visible and I am not sure the stealth design proposed is a good concept." The County's own consultant documented his doubts about the design during the pre-application process. Those doubts have not been addressed in the Application.

5. The color was changed during pre-application from earth-tone to burgundy.

The pre-application materials also show that the Applicant initially considered a "Dark Copper / Brown Concealed Cannister Design." The final submission specifies Brandywine SW 7710—a deep burgundy that reads as substantially less compatible with the surrounding earth palette than the dark copper or brown the Applicant initially contemplated. The record reveals no engineering or commercial reason for the change.

6. Conclusion on the substantive concealment failure.

The procedural defects in the Visual Impact Assessment—its location staleness under the Section II.B dilemma and the missing Section [53] 7(L) screening demonstration—are addressed in Section II.I below. The substantive showings required by Section [53] 7(P), Section [53] 7(O), Section [58] 12(B), and Section [51] 5. ¶ 24 are independently absent on the merits. There is no substantial evidence on which the Commission can find any of those mandatory provisions met, and without those findings, approval cannot stand under Section [65] 19(C). The Application should be denied.

Section II. the Application should be denied on the grounds set forth in Section I. Alternatively, the Application should be denied until it has been amended to correct its deficiencies.

II.A. The Application is unsigned. The certifications, authorizations, and substantive commitments that the Ordinance and the Application Guidelines require to be in the record are absent.

Three independent provisions—one in the Ordinance, two in the County's Macro Wireless Facilities Application Guidelines—require specific, identified parties to sign the Application before it may be acted upon. None of those signatures is in the record. Without them, the certifications and substantive commitments the signatures convey are not in the record either, and the Commission has no substantial evidence on which to act under Section [65] 19(C).

1. Section [53] 7(B) of the Ordinance requires two signatures, and the Applicant has supplied neither.

Section [53] 7(B) provides, in relevant part:

> An Application for a Conditional Use Permit for Wireless Telecommunications Facilities shall be signed on behalf of the Applicant by the person preparing the same and with knowledge of the contents and representations made therein and attesting to the truth and completeness of the information. The landowner, if different than the Applicant, shall also sign the Application and shall agree to remove any existing violations and make all existing telecommunications facilities compliant with this ordinance and all applicable local, state and telecommunications codes prior to the issuance of any Certificate of Occupancy or Compliance....

Section [53] 7(B) imposes two distinct mandatory signature requirements. First, the Application "shall be signed on behalf of the Applicant" by a person attesting "to the truth and completeness of the information." Second, "[t]he landowner, if different than the Applicant, shall also sign the Application" and "shall agree" to specific substantive code-compliance and remediation commitments tied to issuance of any Certificate of Occupancy. The Ordinance's construction rule confirms that "shall" is "always mandatory, and not merely directory." Section [51] 5. The Application contains no signature on behalf of the Applicant. The Application contains no signature by any landowner. Both mandatory requirements are unmet.

2. Section VI of the Application Guidelines independently requires an original, notarized written authorization from the property owner.

Section VI of the Application Guidelines is the County's freestanding requirement for property-owner authorization. It is divided into two parts. The first part—Property Owner's Authorization, designated Attachment 3a—provides:

> If the applicant does not own the subject property or support structure, provide a written authorization executed by the property owner(s) that authorizes the applicant to file the application and perform the work to the extent described in the application. The property owner's signature must be an original and duly notarized. ... Label this authorization "Attachment 3a – Property Owner's Authorization" and attach it to this application.

Three elements of this requirement are independently mandatory. First, the authorization must be "executed by the property owner(s)." Second, the authorization must authorize the applicant "to file the application and perform the work to the extent described in the application"—i.e., the authorization is substantive, not formal, and it ties the owner's authority to the specific work the Application proposes. Third, the property owner's signature "must be an original and duly notarized." The Application Guidelines do not permit a representation by the Applicant that it has authorization; they require a signed, notarized document from the property owner. The Application contains no document so labeled and no signed, notarized authorization from any party identified as the property owner.

The second part of Section VI—Attachment 3b, the Title Report—illuminates why the Section VI signature requirement matters. Section VI requires "a duly certified title report prepared within the thirty days prior to the application filing date that clearly describes the subject property and identifies the current owner(s) of the property," and states the title report's express purpose: "County staff will use the title report to verify the property owner's identity." The Application Guidelines build in a verification mechanism for owner identity precisely so that the County is not forced to take any single document's word for who owns the parcel. No certified title report appears in the materials submitted.

3. Section XV of the Application Guidelines independently requires a certification on behalf of four named parties—itself, the Applicant, the Carrier, and the property owner.

Section XV of the Application Guidelines is titled "Certification of Accuracy and Reliability." It provides:

> The undersigned certifies on behalf of itself, the applicant, the Carrier (if not the applicant) and the owner of the property (if the property owner is not the County of Sandoval) that the information provided in response to this application form is true and complete to the best of the undersigned's knowledge, and the information provided here should be relied upon by the County as being accurate and complete when the County evaluates this application.

The Section XV certification runs broad. The signer certifies on behalf of four parties: itself; the Applicant; the Carrier (if different from the Applicant); and the owner of the property. The certification covers "the information provided in response to this application form"—i.e., the entire substantive content of the Application. And the certification language expressly directs the County to rely upon the certified information "as being accurate and complete when the County evaluates this application." The Macro Wireless Facilities Permit Application Cover Page submitted with the Application contains a blank Section XV signature block: no signature, no name, no title, no company, no date. No party has made the Section XV certification. The County therefore has no certified information on which to rely.

4. The substance of what the signatures certify to, and commit the parties to, is not in the record.

The mandatory signature requirements are not formalities. Each signature, were it supplied, would put a specific party on the record for specific substantive content. None of that content is here.

The Section [53] 7(B) Applicant signature represents that a particular individual, with knowledge of the Application's contents, attests to the truth and completeness of the information. No such attestation has been made. The Application's many representations—about coverage need, alternatives analysis, balloon test compliance, NIER certification, setback, site control, and so on—stand on no one's certification.

The Section [53] 7(B) landowner signature carries a substantive code-compliance commitment: the landowner "shall agree to remove any existing violations and make all existing telecommunications facilities compliant with this ordinance and all applicable local, state and telecommunications codes prior to the issuance of any Certificate of Occupancy or Compliance." That commitment is the County's mechanism for binding the underlying real estate to ongoing compliance. Without the landowner's signature, no landowner has accepted that obligation, and the County would issue a conditional use permit in reliance on a remediation commitment no one has made.

The Section VI Property Owner's Authorization is the County's mechanism for confirming that the person filing the Application has the legal right to file it. The Application Guidelines specify that the authorizing signature must be original and notarized precisely because the County would otherwise have no reliable evidence that any person identified as "owner" in the Application actually exists, holds title, and consents to what the Applicant proposes to build on the parcel. No such evidence is in the record.

The Section XV certification is the Applicant's representation, on behalf of all four named parties, that the Application's information is true and complete. Section XV's own text identifies the County's re-

liance interest—the certified information "should be relied upon by the County as being accurate and complete when the County evaluates this application." Where no certification has been made, the County has no document on which to rely, and no party on the record stands behind the Application's representations.

5. The McCallisters are the property owners, and the McCallisters have not signed.

The property owners are Orville C. and Judith A. McCallister. The Sandoval County Ownership Verification Attachment, drawn from the County Assessor's records and attached by the Applicant to its own cover packet, identifies the McCallisters as record-of-title owners (Account R186379, Parcel 1023073028180, situs 221 165 Hwy St, Placitas, NM 87043). The Project Plans T-1 cover sheet, signed and sealed by the Applicant's engineer, identifies the same McCallisters as the property owner. The Applicant's own materials, on the points where they draw on independent records of title, identify the McCallisters and only the McCallisters as the property owners. The APPROVALS block on the same Sheet T-1 contains a signature line for "LANDLORD"; that line is blank.

The Lease describes the property owner differently. It is signed by Racquel Huslig as Landlord, and Section 9(e) warrants that she has "good and marketable fee simple title to the Site, the Property...." Ms. Huslig does not in fact hold fee simple title. Her interest in the parcel arises under a real estate contract with the McCallisters, a copy of which is attached to this letter as Attachment 1. Under a real estate contract of this kind, legal title is retained by the seller until the contract is paid in full; the buyer holds an equitable interest only. If Ms. Huslig defaults before the contract is paid in full, she loses her interest in the parcel together with the payments she has made to date—in legal substance, she is an installment purchaser, not an owner. The McCallisters remain the property owners until Ms. Huslig completes performance under the real estate contract, and the Application contains no evidence that she has done so. The pre-application correspondence is consistent with this status, not contrary to it: the May 31, 2024 Curiel email describes Ms. Huslig as someone the project team "were passed to," and the May 29, 2024 Curiel email describes her as "in contract with Judy/Orville"—"in contract" is not ownership. The Lease's warranty of fee simple title is therefore not consistent with the Applicant's own ownership-verification materials and not consistent with the legal substance of Ms. Huslig's interest in the parcel. The affirmative misrepresentation is addressed at Section I.C above, and the underlying site-control defect is addressed at Section II.C below.

The McCallisters have not signed the Application. They have not executed an Attachment 3a Property Owner's Authorization. They have not made the Section XV certification. The Section [53] 7(B) landowner signature requirement, the Section VI Attachment 3a authorization requirement, and the Section XV certification requirement all run to the actual record owners of the parcel—not to a contract purchaser who has not yet earned title. All three are unmet on the only set of facts the record will support.

The Lease itself anticipates the missing-evidence problem. Section 22(a) of the Lease provides that "If the Site is encumbered by a mortgage or deed of trust," the Landlord agrees within thirty days to execute and obtain a non-disturbance and attornment agreement from the lender. No such instrument from the prior fee holder is in the Application. Section 27(b) entitles Sun State to title coverage and obligates the Landlord to furnish "customary title affidavits and other documentation" in connection with that coverage. No title affidavit, title commitment, or owner's title insurance policy is in the Application. These Lease pro-

visions ratify the same information Section VI / Attachment 3b is designed to capture, and neither requirement has been met.

6. Consequence.

Section [53] 7(B) is unmet on both of its mandatory signature requirements. Section VI of the Application Guidelines is unmet on both Attachment 3a (Property Owner's Authorization) and Attachment 3b (Title Report). Section XV of the Application Guidelines is unmet on its face. The Application is not a "Completed Application" within the meaning of Section [51] 5. ¶ 9, which requires "all information and/or data necessary to enable an informed decision." Section [53] 7(C) authorizes rejection of incomplete applications, and the Application Guidelines provide that any application that does not contain all applicable materials set forth in the Application Guidelines and the Ordinance is subject to a determination of incompleteness by the County. Section [53] 7(B) supplies the additional, independent ground for denial: false or misleading statements in the Application subject the Applicant to denial without further consideration or opportunity for correction—and the unsigned, uncertified state of the Application places its representations beyond the reach of any party's attestation.

There is no substantial evidence on which the Commission can find that the Application contains the certifications and authorizations the Ordinance and the Application Guidelines require, and without those findings, approval cannot stand under Section [65] 19(C). The Commission should at minimum continue the hearing and direct the Applicant to file a properly signed Application, a properly executed and notarized Attachment 3a Property Owner's Authorization, and a properly certified Attachment 3b Title Report identifying the actual record owner of the parcel, before the Commission acts on the merits.

II.B. The Application identifies the southwest corner of the parcel as the proposed site, but the most recent balloon test was conducted from the northeast corner of the parcel. The Applicant has not addressed the discrepancy, and the Commission cannot approve the Application for either location.

Section [53] 7(C) of the Ordinance provides:

> Applications not meeting the requirements stated herein or which are otherwise incomplete may be rejected by the County.

Section [64] 18(C) reinforces the same principle by directing that the public hearing shall be scheduled "once [the County] finds the Application is complete." Section [51] 5. ¶ 9 defines a "Completed Application" as "[a]n Application that contains all information and/or data necessary to enable an informed decision to be made with respect to an Application."

The Application here describes one site. The most recent balloon test was conducted at a different one. The materials the Applicant submitted uniformly identify the proposed tower location as being in the southwest corner of the four-acre parcel:

- The Development Narrative Report states: "The proposed site will be near the far Southwest corner of the very large parcel."
- The Aerial Photo Map labels the proposed location "Candidate B" and depicts it in the southwest corner of the parcel adjacent to NM-165.

- The Lease Agreement Site Plan depicts the tower compound in the southwest corner of the parcel, fronting NM-165 and Tierra Madre Road.
- The Biwabkos RF Design Analysis keys its propagation modeling to coordinates "Latitude: 35.309466 N (NAD83); Longitude: -106.495432 W (NAD83); Ground Elevation: 5503′ (NAVD88)," which fall in the southwest portion of the parcel.
- The Biwabkos RF Compliance Report identifies the same southwest-corner coordinates and certifies emissions for that location.

On May 9, 2026, the Applicant conducted what it represented to be the balloon test required by Section [53] 7(Y). The balloon was lifted from the northeast corner of the parcel—not from the southwest corner depicted in any of the materials above. The northeast corner is on the opposite side of the four-acre parcel from the southwest corner. They are not the same place, and they are far enough apart that the propagation, visual impact, setback, and topographic conclusions of the Application would each differ between the two locations.

The Applicant has not amended the Application to remedy this disconnect, has not noticed any change of site, and has not submitted updated visual, setback, topographic, geotechnical, or coverage materials keyed to the northeast corner.

The Commission therefore is faced with a dilemma. Either the proposed site is the southwest corner depicted in the Application materials—in which case the balloon test was not conducted at "the proposed Tower" location, and Section [53] 7(Y) is violated on its face (treated more fully under Section II.D)—or the proposed site has changed to the northeast corner, in which case every site-specific submission in the Application no longer describes the facility this Commission is being asked to permit. On that second horn of the dilemma, each of the following is now stale, non-probative, or unsupported as to the location actually proposed:

- Section [53] 7(F)(20) topographic and geomorphologic study (subsurface, substrata, and drainage differ across a four-acre parcel);
- Section [53] 7(F)(7)–(9) location of nearest residential structure, structures on the property, and existing/proposed antennae (each is a function of base location);
- Section [53] 7(F)(13) height above preexisting grade (a function of the elevation at the actual base);
- Section [53] 7(K) Zone of Visibility Map and "before and after" pictorials (vantage points and affected abutters change with the base);
- Section [53] 7(F)(17) NIER certification, which Biwabkos prepared for specific coordinates;
- Section [53] 7(H) structural certification and its underlying geotechnical inputs, which were prepared for the southwest-corner location;
- Section [61] 15 setback computation, which depends on the distance from the base to each abutting parcel and right-of-way;
- The Noise Study's projected dBA at the nearest residence (a function of distance); and
- Section [53] 7(F)(1) propagation studies, which model RF behavior from the antenna center coordinates.
- Section [53] 7(F)(6) lot-line diagram and Lease Exhibit D site plan, each tied to the proposed point of beginning;

- Section [53] 7(F)(10) landscaping and fencing layout, including the 40′ × 40′ compound orientation, the coyote-style fence run, and the location of the access gate (each a function of base location);
- Section [53] 7(F)(14)–(16) frequency, intended transmission power, and direction of maximum radiation lobes (lobe geometry to surrounding receptors is a function of antenna position);
- Section [53] 7(L) screening demonstration (and see Section II.I.2);
- Section [53] 7(Q) access road, turn-around, and parking, including the Sun State 40′-wide access and utility easement that runs from Tierra Madre Road to the proposed base—a different base requires a different access plan and different grants of easement;
- Section [53] 7(Z) FAA Part 77 lighting analysis, which is interpolated from the precise coordinates;
- the metes-and-bounds Lessee's Lease Area, Sun State Access & Utility Easement, and 10-foot Utility Easement descriptions on Sheet LS-2, the fall-zone engineering certification, and the Section [61] 15(B) setback-reduction request, each tied to or calibrated for the specific proposed base; and
- Section II Project Plans and Section VI / Attachment 3a Property Owner's Authorization of the Macro Wireless Facilities Application Guidelines (the engineered plan set and the authorization are each keyed to one location).

There is no permissible third option. The Application must describe the facility it asks the County to permit. This Application does not. The location disconnect is also, as discussed in Section I.C, an independent Section [53] 7(B) ground for outright denial.

II.C. Site control is not established. The Lease is signed by a person who, on the face of the Applicant's own attached records, did not hold title to the parcel.

Section [53] 7(F)(3) of the Ordinance requires the Application to include:

> The name, postal address, telephone number and legal form of the property owner, operator, Applicant and any other entities involved in the operation, the proposed name of the Wireless Telecommunications Facilities, and the name and qualifications of the person directing the design and construction of the proposed Wireless Telecommunications Facilities.

Section VI of the County's Macro Wireless Facilities Application Guidelines, Attachment 3b, separately requires a current certified title report "prepared within the thirty days prior to the application filing date that clearly describes the subject property and identifies the current owner(s)." The Application Guidelines specify the title report's purpose: "County staff will use the title report to verify the property owner's identity."

The Application identifies Racquel Huslig as the property owner. The Lease Agreement is signed by Huslig as Landlord, and Section 9(e) of the Lease warrants that she has "has good and marketable fee simple title to the Site, the Property....." The Sandoval County Ownership Verification Attachment, which the Applicant attached as part of the Pinnacle cover packet, tells a different story. The record-of-title owners shown on the Assessor's data for the same parcel (Account R186379, Parcel 1023073028180, situs 221 165 Hwy St, Placitas, NM 87043) are "MCCALLISTER, ORVILLE C AND JUDITH A." Huslig is listed only under "In Care Of Name." The Application's own attachments identify the McCallisters as the own-

ers in four other places: the Assessment & Property Tax Info Attachment; the Zoning District Map Attachment; the Zoning Lookup Tool screenshot; and—most directly—the PROPERTY OWNER block in the title sheet of the engineered drawing set, Sheet T-1, which reads "MCCALLISTER, ORVILLE C AND JUDITH A, 71 Tunnel Springs Rd., Placitas, NM 87043." The APPROVALS block on Sheet T-1 contains a signature line for "LANDLORD"; that line is blank.

An "In Care Of" notation on a county assessor record is a mailing direction. It is not a conveyance of title and it confers no authority to lease the underlying real estate. The Applicant's own pre-application correspondence reinforces the gap. On May 29, 2024, Pinnacle's Chris Curiel wrote that "we are close to finalizing our lease agreement with the owner, Racquel Huslig (she is in contract with Judy / Orville)." Whatever expectation Huslig may have had of acquiring title, "in contract" is not ownership. Nothing in the Application establishes that the transfer was ever completed, that Huslig now holds title, or that she ever held authority to bind the McCallisters as Landlord under a ninety-nine-year lease.

The Real Estate Contract attached to this letter as Attachment 1 settles the question definitively. The Contract is dated July 15, 2021 and was recorded in the Office of the Sandoval County Clerk on July 16, 2021, as Document Number 2021025157 (Book 424, Page 25157). It is the same instrument the Applicant's own Development Narrative Report reflects in the Sandoval County Assessor's Transfers row as "REAL ESTATE CONTRACT dated 07/16/2021." The Contract conveys legal title to no one on its face. Under Paragraph 10.B, the original warranty deed signed by the McCallisters as Sellers is placed in escrow with New Mexico Escrow Solutions. Under Paragraph 10.F, the deed is released to Huslig only "[u]pon full payment of the Balance Due Seller and full performance under this Contract." A handwritten annotation on Paragraph 10.F repeats, in plain words: "No deed until price is fully paid." The Balance Due Seller is $500,000.00, amortized at $3,299.78 per month over thirty years from the date of the first payment, with final payment due on or about August 15, 2051. On June 21, 2024—the date Huslig signed the Lease as Landlord—the warranty deed remained in escrow and legal title remained with the McCallisters.

The Contract itself describes Huslig's interest as equitable, not as fee. The heading of Paragraph 8.C uses the words "BUYER'S EQUITABLE RIGHTS IN THE PROPERTY" in capital letters. Paragraph 5 grants Huslig the right "to take and retain possession" of the Property only "unless and until Buyer's rights in the Property are terminated by Seller as provided in Paragraph 8." A possessory interest that terminates on default is not fee simple title, and a buyer holding it does not hold "good and marketable fee simple title" for purposes of Section 9(e) of the Lease.

Paragraph 6 of the Real Estate Contract is operative on this Application. It carries the bold-capitalized command "NO SALE WITHOUT CONSENT OF SELLER." It applies to "[a] sale, assignment, conveyance or encumbrance of all or any portion of Buyer's interest in this Contract or the Property." A ninety-nine-year ground lease with exclusive utility and access easements is an encumbrance of "any portion … of the Property" under the plain text of that clause. The Contract continues: "A Transfer without payment of the Balance Due Seller, and without the prior written consent of Seller, will be an event of default." No McCallister consent—written or otherwise—appears in the Application. The Real Estate Contract therefore not only confirms that Huslig lacks fee title; it confirms that she has acted in contravention of her own purchase contract.

The result is that several of Huslig's representations in the Lease are facially false on the face of the Application's own attachments. In Section 9(a), Huslig warrants that she "has the full right, power, and authority to execute" the Lease; Paragraph 6 of the Real Estate Contract conditions that authority on prior McCallister consent, which has not been obtained. In Section 9(c), she warrants that the Property "is not presently subject to an option, lease or other contract which may adversely affect Landlord's ability to fulfill its obligations"; the Real Estate Contract is exactly such a contract. In Section 9(d), she warrants that no "encumbrances relating to the Property prohibit or will interfere with the Intended Use"; Paragraph 6 of the Contract does both. In Section 9(e), she warrants "good and marketable fee simple title" to a Property "free and clear of all liens and encumbrances"; she holds no fee simple title and the Property is encumbered by the Real Estate Contract. The Memorandum of Lease at Section 2 likewise recites that "Landlord owns certain real property described in Exhibit A," a representation that runs to a recording instrument and is equally false. By the terms of Section 9(g), these representations "survive the termination or expiration of this Prime Lease," so the falsity persists. By the terms of Section [53] 7(M) of the Ordinance, each of those representations is also a representation made to the County, and each is part of the Application.

Until that gap is closed, the Commission cannot find that the Application complies with Section [53] 7(F)(3) of the Ordinance, that Attachment 3b of the Application Guidelines has been satisfied, or that the Applicant has the site control necessary to support the conditional use permit it seeks. The Section 9 misrepresentations in the Lease are also addressed in Section I.C above.

II.D. The May 9, 2026 balloon test did not comply with Section [53] 7(Y). At least four of the subsection's six mandatory requirements were not met.

The balloon test is a precondition to the public hearing. Section [53] 7(Y) requires the Applicant, before the hearing, to hold a balloon test at the proposed tower's location, at the proposed tower's maximum height, using a brightly colored balloon of at least three feet in diameter, for at least four consecutive hours between 7:00 a.m. and 4:00 PM, on a weekend primary date, with newspaper advertising seven and 14 days in advance and written notice to the County at least 14 days in advance. The full text:

> [T]he applicant shall, prior to the public hearing on the application, hold a "balloon test". The Applicant shall arrange to fly, or raise upon a temporary mast, a minimum of a three foot in diameter brightly colored balloon at the maximum height of the proposed new Tower. The dates, (including a second date, in case of poor visibility on the initial date) times and location of this balloon test shall be advertised by the Applicant seven and 14 days in advance of the first test date in a newspaper with a general circulation in the County. The Applicant shall inform the County, in writing, of the dates and times of the test, at least 14 days in advance. The balloon shall be flown for at least four consecutive hours sometime between 7:00 am and 4:00 PM on the dates chosen. The primary date shall be on a weekend, but in case of poor weather on the initial date, the secondary date may be on a weekday.

Each of the six requirements must be satisfied. The test serves a notice purpose. The community must be able to see, before the hearing, what the proposed tower will actually look like from where it will actually stand. Every element the Ordinance specifies is necessary to that purpose.

The Applicant conducted a balloon test on Saturday, May 9, 2026. On the face of the Applicant's own conduct of that test, at least four of the six mandatory requirements were not met.

1. The balloon was below the required minimum three-foot diameter.

Section [53] 7(Y) requires "a minimum of a three foot in diameter brightly colored balloon." Three feet is thirty-six inches. The balloon the Applicant flew on May 9 was approximately twenty-two inches in diameter, measured at the test. Twenty-two inches is approximately sixty-one percent of the Ordinance minimum. The Ordinance specifies three feet because the balloon must be visible to the community evaluating the proposed tower. An undersized balloon defeats that purpose. The mandatory minimum-diameter requirement was not met.

2. The balloon was not flown for four consecutive hours.

Section [53] 7(Y) requires that "[t]he balloon shall be flown for at least four consecutive hours sometime between 7:00 am and 4:00 PM on the dates chosen." The word "consecutive" is operative. The Applicant cannot satisfy the requirement by summing several shorter aloft periods separated by long gaps on the ground.

On May 9, 2026, the Applicant flew the balloon in three discrete segments:

- Raised at approximately 11:04 a.m. and lowered by approximately 11:41 a.m.—approximately 37 minutes aloft.
- Raised briefly at approximately 1:33 p.m., without any means to certify the height. Lowered to attach a measuring tape.
- Raised again at approximately 1:43 p.m. and lowered at approximately 2:53 p.m.—approximately 1 hour 10 minutes aloft.

The longest consecutive aloft period was approximately 1 hour 10 minutes. The Ordinance requires four consecutive hours—240 minutes. The longest consecutive aloft period fell short by approximately 170 minutes. The gap between the first and second sessions was approximately 1 hour 52 minutes. Even adding all three aloft periods together produces a cumulative aloft time of less than two hours—still less than half of the four-hour minimum, and in any event not what the Ordinance requires. "Consecutive" means consecutive. The mandatory four-consecutive-hour requirement was not met.

3. The balloon test was not conducted at the location of the proposed Tower.

Section [53] 7(Y) requires the balloon test at the "location" of the proposed tower. As set out in Section II.B above, every site-specific document in the Application identifies the southwest corner of the parcel as the proposed tower location. The May 9 balloon test was conducted from the northeast corner. The two are not the same site. A balloon flown from the northeast corner does not test the visual impact of a tower at the southwest corner. The mandatory location requirement was not met.

4. The balloon was not flown at the maximum height of the proposed Tower for the required duration.

Section [53] 7(Y) requires the balloon to be raised "at the maximum height of the proposed new Tower." The maximum height is 75 feet. During the brief 1:33 p.m. session, the balloon was raised without a measuring tape and lowered specifically to attach one. That session cannot count toward the four-hour re-

quirement, because the Applicant had no means to certify the balloon was at 75 feet. The remaining two sessions, even if assumed to have been at full height, together total approximately 1 hour 47 minutes—still well short of four consecutive hours. The mandatory maximum-height-for-the-required-duration requirement was not met.

5. Consequence.

Each of the four failures above is a separate failure of a mandatory provision of Section [53] 7(Y). Each independently means Section [53] 7(Y) was not satisfied. The balloon test is a precondition to the public hearing; without a compliant test, the public did not receive the notice the Ordinance requires, and the Commission does not have before it the record the Ordinance requires. There is no substantial evidence on which the Commission can find Section [53] 7(Y) satisfied, and without that finding, approval cannot stand under Section [65] 19(C). Section [53] 7(C) authorizes rejection as an additional, independent incompleteness ground. The Commission should at minimum continue the hearing and direct the Applicant to conduct a compliant balloon test before any decision on the Application.

II.E. The Applicant has not demonstrated need for service "primarily and essentially within the County" under Section [53] 7(F)(1), and the propagation studies do not address adjoining sites.

Section [53] 7(F)(1) of the Ordinance requires the Application to include:

> Documentation that demonstrates the need for the Wireless Telecommunications Facility to provide service primarily and essentially within the County. Such documentation shall include propagation studies of the proposed site and all adjoining planned, proposed, in-service or existing sites.

Section [53] 7(F)(1) imposes two distinct obligations: (i) demonstrate need for service "primarily and essentially within the County," and (ii) include propagation studies of the proposed site and of "all adjoining planned, proposed, in-service or existing sites." The Application satisfies neither.

1. The Applicant's stated purpose includes offloading existing capacity, not providing service where service does not exist.

The Biwabkos RF Design Analysis is the document the Applicant submitted to demonstrate need. Slide 3 of that analysis identifies the "Objective of new site," listing two categories. Under "Capacity," the Applicant lists:

> Provide additional bandwidth for customers in the area surrounding the proposed site
> Provide better throughput for indoor users in the area
> Offload surrounding sites in area.

The Applicant's own document at slide 2 of the analysis distinguishes capacity from coverage and admits the distinction. "Capacity is providing bandwidth or processing capacity to service the customers in the area." "Coverage is Providing Service where service does not exist, calls drop, or 'no service.'" Two of the three stated objectives—"additional bandwidth" and "offload surrounding sites"—are capacity objectives. They are not the County's interest under Section [53] 7(F)(1)'s need-for-service-primarily-and-essentially-within-the-County standard. The first describes a Verizon network-management objective. The

third describes shifting Verizon's own internal load. Neither establishes that the County's residents and businesses have a service deficit the proposed tower would cure.

2. Coverage already exists west of the S curve on NM-165, and the proposed tower does not improve coverage east of the S curve where most of Placitas lives.

The Applicant's RSRP comparison maps in the Coverage Analysis reveal a more limited service rationale than the Applicant's stated objectives suggest. The "Current" and "Proposed" RSRP maps show that the proposed tower's improved coverage extends west, toward Bernalillo, and that the coverage maps are bounded on the east at the S curve on NM-165. The Placitas Village, Las Huertas, Tunnel Springs, the Overlook, and Diamond Tail all lie east of the S curve. The Applicant's own coverage maps do not show any improvement for those areas. The areas the proposed tower would improve are areas that, on the Applicant's own Ookla and OpenSignal slides, already receive Verizon service, including the area along NM-165 west of the S curve.

My own drive-test measurements with a colleague who is a mathematical modeler confirm this. Drive-test data taken using G-NetTrack Pro along NM-165 in the proposed coverage area, and a sustained live Verizon voice call across that same area, refute the Applicant's claim that this is an area without coverage. The Applicant has not demonstrated that residents and businesses within Sandoval County currently lack the service the proposed tower would purportedly provide.

3. Much of the proposed coverage area is the Placitas gravel mine, where no one lives.

The Applicant's own coverage maps include within the proposed coverage area a substantial portion of the gravel mine, north of NM-165. That gravel mine is identified in the Placitas Area Plan (p. 11) as approximately 833 acres in size. There is no residential population there. There are no businesses there. The mine is inactive. The proposed tower will not "provide service" to County inhabitants in the gravel mine because there are no inhabitants in the mine.

4. The Applicant has not submitted propagation studies of adjoining sites.

Section [53] 7(F)(1) requires not only documentation of need for service in the County, but also "propagation studies of the proposed site and all adjoining planned, proposed, in-service or existing sites." The Biwabkos analysis addresses the proposed site. It does not include propagation studies of the adjoining Verizon sites (which the analysis itself identifies as being within 2.27, 3.60, 4.12, and 5.71 miles of the proposed site, of the adjoining AT&T sites, of the adjoining T-Mobile sites, or of any planned or proposed sites by Verizon or its competitors in or adjoining the County. The Ordinance requires those studies. The Application does not contain them.

The Applicant's burden under Section [65] 19(C) is not satisfied by selecting the most favorable propagation portrait of the proposed site in isolation. The Ordinance requires context: how the proposed facility fits into the surrounding network of in-service and proposed facilities, and whether the asserted service need cannot be addressed by adjoining sites or by collocation. Without those adjoining-site propagation studies, the Commission cannot make that comparative judgment, and the Applicant has not satisfied Section [53] 7(F)(1).

5. The Applicant's own propagation study of the proposed site is internally inconsistent with the Applicant's stated need and is contradicted by actual measurement.

Section [53] 7(F)(1) requires the Applicant to submit a propagation study of the proposed site as part of the documentation demonstrating need. The Applicant submitted that study as the RSRP – Current Coverage map at page 11 of the Coverage Analysis. On the map's own legend (Indoor '–'85 dBm, In-Vehicle '–'95 dBm, Outdoor '–'101 dBm), the project-area ellipse—the area where the proposed tower would sit—is shaded white, meaning the modeled signal is below –101 dBm. The Applicant's propagation study, on its face, represents that current Verizon coverage does not exist in the project area. That representation cannot stand alongside the Applicant's stated need. Slide 3 of the Biwabkos RF Design Analysis identifies the "Objective of new site" entirely as capacity, and slide 2 defines capacity as "providing bandwidth or processing capacity to service the customers in the area"—a definition that on its face presupposes that service exists. The propagation study admits no service; the stated objective claims a capacity need that requires service. The two are mutually exclusive on the Applicant's own definitions, and Section [53] 7(F)(1)'s "demonstrate the need" obligation requires the documentation to match the claimed need. The propagation study is also contradicted by the drive-test data along NM-165 and the sustained live Verizon voice call described in Section II.E.2 above. Whether the propagation study is taken at face value or as a representation refuted by measurement, the Applicant has not produced the substantial evidence Section [65] 19(C) requires on the question of need.

II.F. Collocation and shared-use requirements under Section [53] 7(G), 7(U), 7(V), and Section [56] 10 are not satisfied.

The Ordinance establishes a strong, layered preference for collocation and shared use over construction of new towers. Section [52] 6(2) lists, as one of the "Purposes" of the Ordinance, "requiring the location and configuration of Wireless Telecommunications Facilities so as to minimize their adverse impacts … by encouraging shared use of existing facilities." Section [53] 7(G) imposes the obligation directly:

> In the case of a new Tower, the Applicant shall be required to submit a written report demonstrating its meaningful efforts to secure shared use of existing Tower(s) or the use of alternative buildings or other structures within the County. Copies of written requests and responses for shared use shall be provided to the County in the Application, along with any letters of rejection stating the reason for rejection.

Section [56] 10 reinforces this preference:

> Locating on existing Towers or others structures without increasing the height, shall be preferred by the County, as opposed to the construction of a new Tower. The Applicant shall submit a comprehensive report inventorying existing Towers and other suitable structures within four miles of the location of any proposed new Tower, unless the Applicant can show that some other distance is more reasonable and demonstrate conclusively why an exiting Tower or other suitable structure can not be used.

Section [53] 7(U) requires the Application to demonstrate that the proposed tower itself will be designed to accommodate future collocations:

> The Applicant shall examine the feasibility of designing a proposed Tower to accommodate future demand for at least five additional commercial applications, for example, future collocations. The Tower shall be structurally designed to accommodate at least five additional Antenna Arrays equal to those of the Applicant, and located as close to the Applicant's Antennae as possible without causing interference.

Section [53] 7(V) requires the Applicant to commit to good-faith future collocation negotiations.

The Application falls short under each provision.

1. The shared-use report required by Section [53] 7(G) has not been submitted.

Section [53] 7(G) requires "a written report demonstrating [the Applicant's] meaningful efforts to secure shared use of existing Tower(s) or the use of alternative buildings or other structures within the County," together with "copies of written requests and responses for shared use" and "any letters of rejection."

The Application contains none of these documents. The Development Narrative Report makes the conclusory assertion that "There are no collocation opportunities that will service Verizon's needs in the area," and states that the proposed site "is collocatable for future providers such as AT&T and T-Mobile to utilize the stealth structure." Neither statement is supported by a written report. Neither is supported by copies of written requests to the owners of existing towers. Neither is supported by any letter of rejection. And there is no indication of what Verizon's "needs" are, how they cannot be met by collocation, or how Verizon's "needs" relate to the needs of the County. Section [53] 7(G) is a documentation requirement, and the documentation is absent.

2. The four-mile inventory required by Section [56] 10 has not been submitted.

Section [56] 10 requires "a comprehensive report inventorying existing Towers and other suitable structures within four miles of the location of any proposed new Tower." The Applicant's own Coverage Analysis identifies five towers within four miles of the proposed site: a Verizon site at 4.12 miles, a Verizon site at 3.60 miles, a Verizon SBA Tower at 2.27 miles, a T-Mobile site at 4.12 miles, and AT&T sites at 2.27 and 3.74 miles, plus the MCD site at 2.39 miles. The Application contains no comprehensive inventory of those structures, no written analysis of each as a potential collocation candidate, no documentation of inquiry to the structure owners, and no "conclusive demonstration" that none can be used. The four-mile inventory requirement is unmet.

3. The Section [53] 7(U) five-array design feasibility examination is absent.

Section [53] 7(U) requires the Applicant to "examine the feasibility of designing a proposed Tower to accommodate future demand for at least five additional commercial applications," and to structurally design the Tower to accommodate at least five additional Antenna Arrays. The Development Narrative Report represents only that the Tower is "able to co-locate up to 3 carriers"—not five. The Application contains no examination of the feasibility of five-array capacity, no engineering analysis of the structural margin for that capacity, and no showing that a five-array design is technologically or commercially impracticable under Section [53] 7(U)(1)–(4). The Vector Structural Engineering calculation package submitted with the Application confirms the three-array design and nothing more: it models exactly three Antenna Arrays at elevations of 50, 60, and 70 feet, reporting a 74.5% tower-loading ratio (Vector Struc-

tural Engineering, LLC, Tower Design Notes, p. 7). The Pinnacle Consulting pre-application email of May 31, 2024 admits the same: "Dark Copper / Brown Concealed Cannister Design built with space for (2) carriers. If needed, can extend cannister down to hide the 3rd carrier." On the Applicant's own record, even the three-carrier capacity is contingent on an unaddressed shroud extension; a five-array design is neither examined nor structurally evaluated.

4. The Section [53] 7(V) good-faith collocation commitments are absent.

Section [53] 7(V) requires the Application to include the Applicant's written commitments to negotiate in good faith for future shared use, including the specific procedural commitments enumerated in Section [53] 7(V)(1)–(3). The Application contains the Lease Agreement (which is between Huslig and Sun State Towers IV, LLC) but contains no Section [53] 7(V) commitment from the operator or the future tower owner. The Lease at Section 5(b) permits Sun State Towers to sublicense to "Collocators" but does not contain the Section [53] 7(V)(1)–(3) commitments. Section [53] 7(V) is unmet.

These four deficiencies share a common root. The Ordinance does not permit a wireless applicant to assert, conclusorily, that collocation will not work. It requires the Applicant to document why. The Application does not.

II.G. The RF Compliance Report's Executive Summary identifies a different site by name and by site code. Section [53] 7(F)(17) is not satisfied on the face of the certification.

Section [53] 7(F)(17) requires the Application to include:

> Certification that the NIER levels at the proposed site are within the threshold levels adopted by the FCC.

The Applicant submitted the Biwabkos RF Compliance Report to satisfy this requirement. The first sentence of the Report's Executive Summary (p. 5) states:

> This report provides the results of an RF power density analysis performed for Pinnacle Consulting at site Tenaya (CA700867) in accordance with the Federal Communications Commission (FCC) rules and regulations for RF emissions described in FCC 19-126.

"Tenaya" is a different site name. "CA700867" is a California site identifier. The proposed facility, by contrast, is identified throughout the Application as ABQ Tierra Madre, site number NM01-148 Spike, at 221 NM-165, Placitas, New Mexico. The Site Description on page 6 of the Report does identify the correct New Mexico site, but the operative certification language at page 5—the language the Commission would rely upon to find Section [53] 7(F)(17) satisfied—cross-references the wrong site.

Section [53] 7(F)(17) is a certification requirement. The integrity of a certification depends on its accurate identification of what is being certified. A document that, in its own Executive Summary, identifies the wrong facility cannot certify the right one. The Commission cannot rely on this Report as the Section [53] 7(F)(17) certification for this site without, at minimum, a corrected version from Biwabkos. As discussed in Section I.C above, the misidentification of the certified site is also a Section [53] 7(B) misrepresentation.

To be clear, this is a documentation defect, not a health-effects challenge. The objection here is not that the proposed facility would in fact exceed FCC limits; it is that the document the Applicant submitted to demonstrate compliance does not certify the facility the Application asks the County to approve.

The Biwabkos misidentification is also part of a broader California-template pattern in the Application.

The Application contains California-jurisdictional references in two other places, each carried over from a California-derived template without correction. Section X of the Macro Wireless Facilities Application Guidelines (Pinnacle Consulting packet, p. 10), titled "Alternatives Analysis," instructs the Applicant, twice, to identify "the factual reasons why the applicant considered the potential alternative site location and/or design to be unacceptable, infeasible, unavailable or not in accordance with the standards in the Madera County Code and this application." Madera County is in California's Central Valley. The Sandoval County Code, not the Madera County Code, governs this Application. The Applicant adopted the form text into its Alternatives Analysis submission without correction; on the record before the Commission, the Alternatives Analysis measures alternatives against the wrong code.

Section XII of the same Application Guidelines (Pinnacle Consulting packet, p. 11), titled "Structural Analysis," requires that the analysis "must be consistent with all applicable requirements in the most current versions of the CPUC General Order 95 (including, but not limited to, load and pole overturning calculations), the National Electric Safety Code, the California Building Code, and any safety and construction standards required by all state and local regulations." CPUC General Order 95 is the California Public Utilities Commission overhead-line construction rule. The California Building Code is, by name, a California statute. Neither has force in Sandoval County. The Applicant's own structural engineer of record correctly cites the 2021 New Mexico Commercial Building Code in the Vector calculations—confirming both that the Application Guidelines' California references are template residue and that the Applicant filed against form text the Applicant's own engineer treated as inapplicable.

Section [53] 7(F) of the Ordinance independently requires that "where a certification is called for, such certification shall bear the signature and seal of a Professional Engineer licensed in the State." The Biwabkos RF Compliance Report is presented as an engineering certification—its first section is captioned "Certification," and the operative attestation page bears the signatures of "Elizabeth Hillhouse, RF Engineer" and "Steven Kennedy, Engineering Manager." No New Mexico Professional Engineer seal appears anywhere in the eighteen-page Report. The same omission is also at odds with the New Mexico Board of Licensure for Professional Engineers and Professional Surveyors regulation at 16.39.3.12(A) NMAC, which requires the New Mexico Professional Engineer seal "shall be obtained on … the certification page of all specifications and engineering reports prepared by the licensee in responsible charge," and with the New Mexico Engineering and Surveying Practice Act, NMSA 1978 §§ 61-23-1 to -33, which restricts the practice of engineering and the use of the title "engineer" in New Mexico to persons licensed by the New Mexico Board. Section [53] 7(F) is unmet on its face.

II.H. The Section [53] 7(F)(20) topographic and geomorphologic study is keyed to one location on the parcel and cannot certify another.

Section [53] 7(F)(20) requires the Application to include:

> Certification that a topographic and geomorphologic study and analysis has been conducted and that taking into account the subsurface and substrata, and the proposed drainage plan, that the site is adequate to assure the stability of the proposed Wireless Telecommunications Facilities on the proposed site.

The certification is, by the express terms of the Ordinance, site-specific. The required study takes account of "the subsurface and substrata, and the proposed drainage plan," and certifies that "the site is adequate to assure the stability" of the proposed facility "on the proposed site." Soil class, subsurface conditions, and surface drainage are not parcel-level constants. They vary across a four-acre lot, particularly where the lot is rolling and partly disturbed, as is the McCallister/Huslig parcel.

Whichever way the Section II.B dilemma is resolved, Section [53] 7(F)(20) is unmet. If the proposed site is the southwest corner, the Applicant must demonstrate that the topographic and geomorphologic study evaluates that location and certifies that location's stability. If the proposed site has shifted to the northeast corner of the parcel, the existing study—prepared for the southwest-corner coordinates—cannot certify it. In either case, the Commission cannot find that Section [53] 7(F)(20) is satisfied without confirmation that the certified location matches the actual proposed location. That confirmation is not in the record.

II.I. The Visual Impact Assessment under Section [53] 7(J), 7(K), and 7(L) is procedurally defective—it is keyed to one location and contains no Section [53] 7(L) screening demonstration.

Section I.E above addresses the substantive concealment failures—color, diameter, the missing Section [53] 7(O) least-intrusive showing, the County consultant's pre-application concerns, and the late color change. This Section II.I addresses the separate, procedural defects in the Visual Impact Assessment that are curable by re-doing the work but preclude a decision on the present record.

1. The Application contains no Zone of Visibility Map; the Visual Impact Assessment is independently keyed to one location.

The Application contains no Zone of Visibility Map. No GIS viewshed product, terrain-based line-of-sight analysis, or signed visibility study appears in the record. The four photo simulations dated May 8, 2024 (Pinnacle Consulting packet, pages 49–52) are unsigned, vendor-prepared renderings of the proposed tower from four short-range vantage points—140 feet looking East, 215 feet looking North, 240 feet looking Southwest, and 300 feet looking West—and do not satisfy the Zone of Visibility Map requirement. Section [53] 7(K) is unmet on its face. The location-staleness analysis that follows is independent of, and alternative to, that primary defect.

Section [53] 7(K) requires the Visual Impact Assessment to include a Zone of Visibility Map, pictorial "before and after" representations from key viewpoints, and an assessment of the visual impact of the tower base, guy wires, and accessory buildings from abutting and adjacent properties and streets. To the extent the Section II.B dilemma resolves toward the northeast-corner location reflected in the most recent balloon test, the Visual Impact Assessment is, by definition, no longer probative. The vantage points and affected abutters change with the location of the base. Section [53] 7(K) is unmet for any location other than the one originally analyzed.

2. The Section [53] 7(L) screening demonstration is missing.

Section [53] 7(L) requires:

> The Applicant shall demonstrate and provide in writing and/or by drawing how it shall effectively screen from view the base and all related facilities and structures of the proposed Wireless Telecommunications Facilities.

The Development Narrative Report and the Lease Agreement (Exhibit B and Exhibit D) describe an 8-foot Coyote Style Wooden Fence around a 40′×40′ compound. The Application contains no sightline analysis from any abutting property or from NM-165 to the H-frame utility rack, the pad-mounted transformer, the equipment cabinets, or the compound interior. An 8-foot wooden fence does not screen the base of a tower whose lower 55 feet—below the shroud—is bare galvanized monopole, plus the equipment compound. Section [53] 7(L) requires the Applicant to demonstrate that screening will be effective. The Application does not.

3. Section [53] 7(J) Environmental Assessment / visual addendum.

Section [53] 7(J) authorizes the County to require Environmental Assessment and visual addenda scoped at pre-application. To the extent any such addendum was scoped at pre-application and is required by the County here, its content is also subject to the Section II.B location-staleness analysis.

4. The photo simulations omit the close-range vantage point Section IV of the Application Guidelines requires.

Section IV(2) of the Macro Wireless Facilities Application Guidelines requires the photo simulations to include "at least one photo simulation depicting the proposed [macro wireless facility] from a vantage point approximately 50 feet from the proposed support structure or location." As noted in Section II.I.1 above, the Applicant's four photo simulations are taken from 140 feet, 215 feet, 240 feet, and 300 feet from the proposed structure. None is at approximately 50 feet. Section IV(2) of the Application Guidelines is unmet, and Section [53] 7(C) of the Ordinance independently authorizes rejection of the Application on this incompleteness ground.

II.J. The Noise Study has not been shown to satisfy the County's mandatory Acoustic Analysis requirements under Section XI of the Application Guidelines, and the Application has not made the showing required under Section [55] 9(F)(4) and Section [53] 7(O).

The County's Application Guidelines impose a mandatory acoustic analysis requirement with specific elements. Section XI of the Application Guidelines provides:

> Provide a report prepared and certified by an engineer (or other qualified personnel acceptable to the County) that measures all noise-emitting equipment related to the wireless facility and would operate at the site. Such equipment includes without limitation all environmental control units, sump pumps, temporary backup power generators, and permanent backup power generators. The acoustic analysis must include an analysis of the manufacturers' specifications for all noise-emitting equipment and a depiction of the proposed equipment relative to all adjacent property lines.

Section XI further requires that, in lieu of a certified report, the Applicant may submit manufacturer evidence that emitted noise will not, individually or cumulatively, exceed the applicable ambient noise limits; and requires the Applicant to describe whether the equipment will be passively or actively cooled, with manufacturer's specifications for any active cooling mechanisms. The required submission is to be labeled "Attachment 8—Acoustic Analysis."

The Applicant's own cover-page checklist does not unambiguously mark the ACOUSTIC ANALYSIS box as completed. Whatever document the Applicant did submit must satisfy the elements set out in Section XI to satisfy the Application Guidelines and, through the Application Guidelines, to satisfy Section [53] 7(C) of the Ordinance. The Applicant must demonstrate that the submission: (i) is certified by an engineer (or qualified personnel acceptable to the County, with the County's acceptance documented); (ii) measures all noise-emitting equipment at the proposed site, including any environmental control units, sump pumps, and backup power generators; (iii) analyzes the manufacturers' specifications for each noise-emitting component; (iv) depicts each component relative to all adjacent property lines, not merely the nearest residence; (v) addresses cumulative noise; and (vi) describes whether the equipment is passively or actively cooled, with manufacturer specifications for any active cooling. Each is a discrete element of the Application Guidelines, and the Applicant's burden under Section [65] 19(C) is to satisfy each.

The Applicant submitted a document titled "Verizon – ABQ Tierra Madre / Cell Tower Noise Study," dated September 29, 2025, prepared by Acoustics Group, Inc. of Garden Grove, California, with Robert Woo identified as "Principal Acoustical Consultant, INCE" and Angelica Nguyen as "Senior Acoustical Consultant" (the "Noise Study"). The Noise Study does not identify itself as "Attachment 8 – Acoustic Analysis" or otherwise as the submission satisfying Section XI. Whether or not it was intended to do so, it does not. Six independent failures appear on the face of the Noise Study, each sufficient by itself.

1. The Noise Study is not certified by an engineer.

The Noise Study bears no PE seal, no engineer's signature, and no licensure number. The named authors are Robert Woo, identified as "Principal Acoustical Consultant, INCE," and Angelica Nguyen, identified as "Senior Acoustical Consultant." INCE is the Institute of Noise Control Engineering, a professional society; INCE membership is not a state engineering license. Section XI requires "a report prepared and certified by an engineer (or other qualified personnel acceptable to the County)." The Noise Study is not certified by an engineer, and the record contains no determination by the County that Mr. Woo's qualifications are "acceptable to the County" as an alternative to engineer certification. The first requirement of Section XI is unmet.

2. The Applicant did not submit manufacturers' specifications.

In lieu of a certified engineer's report, Section XI permits the Applicant to submit "evidence from the equipment manufacturer that the ambient noise emitted from all the proposed equipment will not, both individually and cumulatively, exceed the applicable ambient noise limits." The Noise Study includes an appendix tab titled "MANUFACTURER'S INFORMATION" on page 21. That appendix page is blank. No specification sheets, no manufacturer-issued noise data, and no model numbers appear anywhere in the Noise Study. The alternative-evidence path under Section XI is unmet.

3. The Noise Study omits most of the noise-emitting equipment Section XI requires to be measured, and does not describe the cooling of any equipment.

Section XI requires the analysis to cover "all noise-emitting equipment" related to the wireless facility, expressly "including without limitation all environmental control units, sump pumps, temporary backup power generators, and permanent backup power generators." The Noise Study models exactly two sources: an "RF Box at Exhaust Grill" and an "RF Box at Intake Grill" (Table 3, p. 8). Neither source is the Applicant's proposed equipment; both are measurements borrowed from "a cell tower site in Albuquerque, NM–a similar facility" (p. 7), with no manufacturer named, no model number stated, and no demonstration that the borrowed values represent what Verizon will install at this site. The Noise Study does not model the emergency generator (despite the model output title at page 20 of the Study reading "CELL TOWER WITH EMERGENCY GENERATOR"); the HVAC unit; the rectifiers; the battery-cabinet thermal management; the twelve Remote Radio Units mounted on the monopole; or the "Future Verizon Cabinet" shown on the Applicant's own site plan. Section XI further requires the Applicant to "describe whether the equipment will be passively or actively cooled" and to include manufacturer's specifications for all active cooling mechanisms if actively cooled. The Noise Study contains no such description and no such specifications. The "all noise-emitting equipment" requirement of Section XI, the explicitly enumerated generator and environmental control unit requirements, and the active-cooling requirement are each unmet.

The Noise Study's SoundPLAN acoustic model, set out in the appendix at page 19, in fact lists four sources, not two. They are RF1e, RF1i, RF2e, and RF2i. The dominant source, RF1e, is assigned a sound-power input of 95 dB(A), with a "Value" identifier of "G50L." The label "G50L" appears nowhere else in the twenty-five-page Noise Study—not in any narrative, not in any manufacturer specification, not in any equipment inventory, not in any reference-site measurement. It has no manufacturer, no model number, no octave-band spectrum, no enclosure rating, and no documented derivation. RF1e at 95 dB(A) alone is fourteen to twenty-five decibels louder than the other three modeled sources and drives the predicted boundary levels. The model output table is captioned "CELL TOWER WITH EMERGENCY GENERATOR" (Noise Study, p. 20), and a 95 dB(A) sound-power level is consistent with an unenclosed backup-power generator under load. But no generator source, no generator BARRIER object, no generator manufacturer specification, no generator narrative, and no generator depiction appears anywhere in the Noise Study or in the Application's engineered drawings. The Application's central acoustic prediction therefore rests on an undocumented 95 dB(A) input the Applicant has not identified.

The Site Development Plan compounds the contradiction. Section II.2 of the Macro Wireless Facilities Application Guidelines requires the Site Development Plan to depict, among other utilities and equipment, "generators and/or generator sockets." Sheet T-1 of the Applicant's engineered drawing set (Pinnacle Consulting packet, p. 40) is the principal sheet of the Site Development Plan. Its "SCOPE OF WORK" block lists fourteen physical items to be installed—monopole, concealment shroud, coyote-style fence, concrete pad, three H-frames, RF cabinet, power cabinet, GPS antenna, twelve panel antennas, twelve remote radio heads, OVP-12, antenna mount, electrical service, and telco service—and includes no generator, no generator socket, no transfer switch, and no fuel source. None of the eight other engineered sheets (LS-1, LS-2, Z-1 through Z-6) references a generator either. Either the Site Development Plan understates the proposed equipment in violation of Section II.2 of the Application Guidelines, or the Noise

Study's dominant source input (G50L at 95 dB(A)) corresponds to no equipment in the proposed facility. The Applicant has supplied no way to reconcile the contradiction.

4. The Noise Study does not measure or model noise at any residence.

Section XI requires the analysis to include "a depiction of the proposed equipment relative to all adjacent property lines." It exists to give the Commission what the Commission must find—the noise the people the Ordinance protects will actually experience. The Noise Study predicts cumulative dB(A) at four property-line points (Table 4, p. 9). It does not identify the distance from the proposed equipment to any residence, and it does not compute cumulative noise at any dwelling. The Commission has no engineering record on which it can find what abutting residents will hear.

5. The Noise Study admits the tower will emit noise apparent from adjacent properties—the rule the Applicant's own consultant invoked.

At page 5 the Noise Study invokes a County rule attributed to "the Municipal Code for the Placitas region, Section 2. Building Design, b. General Requirements, item 4." The Applicant's consultant garbled the citation—there is no "Municipal Code for the Placitas region," because Placitas is unincorporated—but the underlying County rule is real. The rule lives at Section 9(2.6)(C)(D)(2)(b)(4) of the Sandoval County Comprehensive Zoning Ordinance, within the OZ-CORR Corridor Overlay Zone (a Corridor Overlay that, by its own terms, applies along State Road 165), and is duplicated at Section 12(4)(E)(2)(g) of the same Ordinance for Urban Commercial and Industrial Districts. The rule provides: "Accessory equipment capable of generating noise and vibrations shall be properly insulated and the noise and vibrations shall not be apparent from adjacent properties or the public right-of-way." The Noise Study's own Impact Assessment at page 9 admits the proposed tower will be apparent from a residential property: "At the nearest residential boundary to the west, the noise level increase would be barely noticeable during the quietest night time hour and would comply with the noise standard." "Barely noticeable" is the consultant's own word for "apparent." Section 9(2.6)(C)(D)(2)(b)(4) of the Ordinance forbids exactly that. The Noise Study reaches its "compliance" conclusion only by silently substituting its own consultant-invented threshold—"a +5 dB increase above the ambient background noise level will be considered a significant noise increase and impact" (Study p. 5)—for the County's actual rule. No County instrument adopts that +5 dB criterion. The Applicant's own consultant has supplied the admission against the qualitative County rule the consultant itself invoked.

Any argument that the OZ-CORR rule is textually limited to multi-family residential standards does not save the Application. Section 5(A) of the Comprehensive Zoning Ordinance directs that "whenever any provisions of this Ordinance are more or less restrictive than other laws or ordinances, then whichever is more restrictive shall govern." A qualitative "not apparent" standard is more restrictive than any numeric decibel threshold the Ordinance might otherwise impose. Section 5(A) therefore imports the rule of Section 9(2.6)(C)(D)(2)(b)(4) into the Commission's Section 17(D)(4) inquiry as the more restrictive applicable standard on noise effects on adjoining properties.

6. The Applicant has not made the "satisfactory provision" concerning noise that Section 17(D)(4) of the Comprehensive Zoning Ordinance requires for any conditional use.

Section 17(D)(4) of the Sandoval County Comprehensive Zoning Ordinance directs that the Zoning Commission "shall not approve a conditional use unless satisfactory provision has been made concerning – the economic, noise, glare, or odor effects of the conditional use on adjoining properties." That standard runs to every conditional use, the present Application included. A noise study that is uncertified, that is missing manufacturers' specifications, that omits most of the noise-emitting equipment, that computes no exposure at any residence, and that reaches "compliance" only by substituting its own threshold for the County's actual rule is not a "satisfactory provision concerning – noise – effects on adjoining properties." Section 17(D)(4) is independently unmet.

On the merits, the Commission may approve the Application only on a record supporting the affirmative finding that the proposed siting will not create an unacceptable risk, or the reasonable probability of such, to residents. Section [55] 9(F)(4). The Applicant bears the burden of producing that record. Section [65] 19(C). On the present record, that burden has not been met. Equipment noise above ambient at the property lines of residential abutters, twenty-four hours a day, year-round, is a quality-of-life impact that the Ordinance directs this Commission to evaluate. The County's Section XI requirements exist to give the Commission the engineered foundation for that judgment. The Applicant's own consultant has now placed on the record the admission that the proposed tower will emit noise apparent at a residential property line twenty-four hours a day, year-round. On that admission, the Commission has substantial-evidence ground to deny the Application under Section [55] 9(F)(4) of the Wireless Telecommunications Facilities Ordinance and the "satisfactory provision" standard of Section 17(D)(4) of the Comprehensive Zoning Ordinance, and at a minimum the Application is not a "Completed Application" within the meaning of Section [51] 5. ¶ 9.

II.K. Section-by-section cross-reference: Section [53] 7 of the Ordinance and the Macro Wireless Facilities Application Guidelines.

For completeness, the tables below identify the status of each subsection of Section [53] 7 of the Ordinance and each section of the Application Guidelines against the submitted record. Items already treated in detail above are cross-referenced; items not treated above are either satisfied or require verification at the hearing.

1. Section [53] 7 of the Ordinance—subsection-by-subsection.

- Section [53] 7(A). Compliance with Section 7. Threshold provision; addressed by the Application as a whole.
- Section [53] 7(B). False or misleading statements. See Section I.C.
- Section [53] 7(C). Authority to reject incomplete applications. See Sections II.B, II.K, and throughout.
- Section [53] 7(D). Submission of two paper sets and digital copy. Verify against record.
- Section [53] 7(E). Filing fee. Verify against record.
- Section [53] 7(F)(1). Need documentation and propagation studies. See Section II.E.
- Section [53] 7(F)(2). Applicant's qualifications and experience. Verify.
- Section [53] 7(F)(3). Property owner / operator / Applicant identification. See Section II.C.
- Section [53] 7(F)(4). Postal address and tax map parcel. Satisfied.
- Section [53] 7(F)(5). Zoning District. Satisfied.

- Section [53] 7(F)(6). Property size and lot-line diagram. Verify against Lease Exhibit D site plan.
- Section [53] 7(F)(7). Location of nearest residential structure. Location-dependent; see Section II.B.
- Section [53] 7(F)(8). Location, size, height of structures on the property. Location-dependent; see Section II.B.
- Section [53] 7(F)(9). Location, size, height of antennae and appurtenant structures. See Section II.B.
- Section [53] 7(F)(10). Type, location, and dimensions of landscaping and fencing. Limited to 8-foot Coyote Style wooden fence; see Section II.I.
- Section [53] 7(F)(11). Tower capacity calculations. See Section II.F.
- Section [53] 7(F)(12). Make, model, manufacturer of Tower and Antennas. Verify.
- Section [53] 7(F)(13). Description including height, materials, color, lighting. Color spec is Brandywine SW 7710; see Section I.E.
- Section [53] 7(F)(14). Frequency, modulation, class of service. Verify against record.
- Section [53] 7(F)(15). Actual intended transmission power. Verify against record.
- Section [53] 7(F)(16). Direction of maximum lobes and associated radiation. Verify against record.
- Section [53] 7(F)(17). NIER certification. See Sections I.C and II.F.
- Section [53] 7(F)(18). Interference certification. Verify against record.
- Section [53] 7(F)(19). FCC license copy. Verify against record.
- Section [53] 7(F)(20). Topographic and geomorphologic study. See Section II.H.
- Section [53] 7(G). Shared-use efforts and supporting documents. See Section II.F.
- Section [53] 7(H). Structural certification (loads). See Sections II.B and II.F; verify the certification matches the actual proposed location. The Vector Structural Engineering calculation package models antennas as “Generic Panel” and “Generic RRU” placeholders rather than the proposed equipment, and duplicates the same calculation set within the 259-page PDF.
- Section [53] 7(I). Grounding and bonding certification. Verify against record.
- Section [53] 7(J). Environmental Assessment / Visual addendum (preapplication scoped). See Section II.I.
- Section [53] 7(K). Visual Impact Assessment. See Section II.I.
- Section [53] 7(L). Screening demonstration. See Section II.I.
- Section [53] 7(M). All representations on record are part of the Application. Applied throughout this letter, particularly Section I.C.
- Section [53] 7(N). Underground utilities. Verify.
- Section [53] 7(O). Least visually intrusive reasonably possible. See Section I.E.
- Section [53] 7(P). Stealth and harmonizing materials. See Section I.E.
- Section [53] 7(Q). Access road, turn-around, parking. Verify; access plan keyed to one location, see Section II.B.
- Section [53] 7(R). Compliance with technical and safety codes and “accepted and responsible workmanlike industry practices and recommended practices of the National Association of Tower Erectors.” Verify.
- Section [53] 7(S). Permits and licenses. Verify.
- Section [53] 7(T). Notification to adjacent municipalities and County Planning Department. Verify (Town of Bernalillo notification, in particular).

- Section [53] 7(U). Five-array design capacity. See Section II.F.
- Section [53] 7(V). Good-faith future shared-use negotiation. See Section II.F.
- Section [53] 7(W). Preapplication meeting and site visit. Conducted.
- Section [53] 7(X). Reservation (n/a in current Ordinance).
- Section [53] 7(Y). Balloon test. See Section II.D.
- Section [53] 7(Z). FAA Part 77 lighting analysis. Verify against record.
- Section [53] 7(AA). Public safety radio space accommodation. Verify against record.

The matters marked "Verify" above are not concessions that the Application satisfies the corresponding provisions. They are placeholders pending confirmation of what exists in the Applicant's submission as the public record stands today. The burden of demonstrating compliance with each provision rests on the Applicant under Section [65] 19(C).

2. The Macro Wireless Facilities Application Guidelines—section-by-section.

Separately from the Ordinance, the County imposes its own completeness requirements through the Macro Wireless Facilities Application Guidelines. The Application Guidelines' own operative language is unequivocal:

> For the County to deem complete any permit application for a Macro Wireless Facility, the applicant must submit all the applicable application materials listed below with the following instructions in these Application Guidelines. Applications that do not contain all applicable materials in these Application Guidelines and the County Code may be deemed incomplete.

This language ties directly into Section [53] 7(C) of the Ordinance, which authorizes the County to reject applications that "are otherwise incomplete." Non-compliance with the Guidelines is non-compliance with the County's definition of completeness, and is a ground for rejection under Section [53] 7(C).

The Applicant's own checklist (the first page of the Application Guidelines submitted with the Application packet) reflects on its face that several required materials were not submitted. The ALTERNATIVES ANALYSIS box appears unchecked. The PROJECT PURPOSE AND TECHNICAL OBJECTIVES box appears unchecked. The check marks for PROJECT EVALUATION, ACOUSTIC ANALYSIS, STRUCTURAL ANALYSIS, LANDSCAPE PLANS, and MAILING INFORMATION are at best ambiguous on the face of the document. The Applicant's own submission therefore signals that the Application is incomplete on the Application Guidelines' terms.

- Section I—Application Form and Fee. The Macro Wireless Facilities Permit Application Cover Page is unsigned in the materials submitted. Section XV of the Application Guidelines requires that the cover page be signed certifying that "the information provided in response to this application form is true and complete to the best of the undersigned's knowledge." See Sections II.B and I.C.
- Section II—Project Plans (MWF Not in Public ROW). Requires two sets of 24×36-inch project plans, signed and sealed by a New Mexico Registered Civil Engineer or licensed land surveyor. Verify New Mexico licensure of the engineer who sealed the site plan in Lease Exhibit D.
- Section III—Project Plans (MWF in Public ROW). Marked "NA" on the checklist. Verify accuracy.

- Section IV—Site Photos and Photo Simulations—Attachment 1. The Application includes photo simulations, but the simulations primarily depict the shrouded tower at a distance. Section IV requires "an accurate and reliable visual representation of the proposed MWF...without limitation [of] all interconnecting cables, conduits, brackets, and electronic equipment such as antennas, radio units and powering equipment." Verify that the simulations submitted satisfy this requirement, including the requirement that at least one simulation be taken "from a vantage point approximately 50 feet from the proposed support structure."
- Section V—Regulatory Authorizations and Approvals—Attachments 2a/2b/2c/2d. Verify content of each Attachment 2 sub-label, including Attachment 2a (Local Regulatory Approvals), 2b (FCC Licenses), 2c (FAA Forms), and 2d (State Regulatory Authorization) where applicable.
- Section VI—Property Owner's Authorization / Title Report—Attachments 3a and 3b. Attachment 3a requires a written authorization "executed by the property owner(s)...original and duly notarized." Attachment 3b requires "a duly certified title report prepared within the thirty days prior to the application filing date that clearly describes the subject property and identifies the current owner(s)." Cross-reference Section II.C: the Lease has Huslig as Landlord; the Ownership Verification Attachment shows McCallister title. A current certified title report would have revealed that discrepancy. If such a report was submitted, it should have alerted the County to the site-control problem; if not, that is itself an Attachment 3b incompleteness defect.
- Section VII—Radio Frequency ("RF") Compliance Report—Attachment 4. See Section II.G. The Biwabkos Report's Executive Summary references "Tenaya (CA700867)"—a different site. This is both a Section [53] 7(F)(17) defect and a Section VII completeness defect.
- Section VIII—Project Evaluation—Attachment 5. Requires "a detailed written analysis that describes how the proposed MWF complies with all the requirements in the County Code, which includes without limitation the County Code location and design requirements and federal and state law, as applicable." Verify whether any document labeled "Attachment 5—Project Evaluation" was submitted. The Development Narrative Report does not satisfy this requirement on its face, because it is a project description, not a Code-compliance analysis.
- Section IX—Project Purpose and Technical Objectives—Attachment 6. Requires identification of dominant project purpose (new coverage versus capacity), and if a significant gap is asserted, description "in technical detail and with signal levels in units of -dBm [of] the boundary of the asserted significant gap." Requires a street-level map of the Service Area; full-color signal propagation maps showing current and predicted coverage in RSRP (or other relevant signal level or quality indicator); a written narrative describing uses within the Service Area; and a statement on drive testing with all drive test results in .XLS or .CSV format. The Biwabkos Coverage Analysis contains some of these elements but does not appear to be labeled "Attachment 6—Project Purpose and Technical Objectives," does not contain drive test data in .XLS or .CSV format, and—critically—the Applicant's own stated objectives include "Offload surrounding sites in area" (slide 3), a capacity purpose. Section IX requires the dominant project purpose to be identified. The Applicant's materials are equivocal.
- Section X—Alternatives Analysis—Attachment 7. The strongest single Application Guidelines argument; see Section I.A. The form's express "conclusory statements...will be deemed incomplete" and "fact-based, reliable evidence" language defeats the Applicant's one-sentence alternatives showing. The Applicant's own checkbox for this section is unchecked.

- Section XI—Acoustic Analysis—Attachment 8. See Section II.J. Defer to the Applicant's identification of the document(s) intended to satisfy Section XI and the element-by-element analysis at the hearing.
- Section XII—Structural Analysis—Attachment 9. Requires a report "prepared and certified by an engineer (or other qualified personnel acceptable to the County) that evaluates whether the underlying pole, support structure or base station has the structural integrity to support all the proposed equipment and attachments." Section XII contains a copy-paste artifact: it requires the analysis to be "consistent with all applicable requirements in the most current versions of the CPUC General Order 95..., the National Electric Safety Code, the California Building Code, and any safety and construction standards required by all state and local regulations." The references to the CPUC General Order 95 and the California Building Code are vestiges of a California template that the County did not fully localize. The operative obligation in New Mexico is the New Mexico Building Code and any applicable state and local regulations. Verify that the submitted Structural Analysis is signed by an engineer licensed in New Mexico and conducted under New Mexico standards.
- Section XIII—Landscape Plans—Attachment 10. Required "when the MWF is proposed to be placed in a landscaped area." The site photos show that the parcel is unlandscaped scrub vegetation. To the extent the 8-foot Coyote Style Wooden Fence and any concealment landscaping triggers this requirement, verify what was submitted.
- Section XIV—Mailing Information—Attachment 11. Requires a map of all properties within a 1,500-foot radius of the subject property; a keyed list of names and addresses of current property owners; two sets of adhesive mailing labels; certification that the names and addresses are those on the latest available Tax Assessor's records; and unaddressed business envelopes sufficient for two mailings. Cross-reference Section [64] 18(A) of the Ordinance (the County's public-notice obligation). Verify the list submitted with the Application matches Assessor records as of the application date.
- Section XV—Certification of Accuracy and Reliability. Requires that the application form be signed by the undersigned certifying "on behalf of itself, the applicant, the Carrier (if not the applicant) and the owner of the property" that "the information provided in response to this application form is true and complete to the best of the undersigned's knowledge." If the application form is unsigned, that is a defect distinct from any Section [53] 7(B) certification defect addressed in Section I.C, and both can be asserted.

The cumulative number and seriousness of the Application Guidelines defects—particularly under Sections VIII, IX, X, and XV—individually and collectively warrant rejection of the Application as incomplete.

The FCC "Shot Clock" does not compel approval, does not relieve the Applicant of its burden, and does not run on an incomplete Application.

The Applicant has filed an FCC Shot Clock notice with the Application. The Commission should not be misled into thinking the shot clock has substantive significance in the merits inquiry before it.

The shot clock derives from 47 U.S.C. § 332(c)(7)(B)(ii), which directs that state and local governments "shall act on any request for authorization to place, construct, or modify personal wireless service facil-

ities within a reasonable period of time after the request is duly filed." The FCC has interpreted that statute, in successive declaratory rulings and orders codified at 47 C.F.R. § 1.6003, to establish presumptive timeframes for action—150 days for new wireless facilities of the kind at issue here.

Three points about how the shot clock applies to this Application:

1. The shot clock requires action, not approval.

The statute requires the County to "act." Denial is an act. A denial supported by substantial evidence in a written record, as required by 47 U.S.C. § 332(c)(7)(B)(iii), fully satisfies the Commission's obligations under the Telecommunications Act. The shot clock is not a deemed-granted provision; it is a timing provision. It does not compel approval, and it does not displace the Applicant's Section [65] 19(C) burden of proof or the County's authority to deny on the merits.

2. The shot clock tolls for incompleteness.

Under 47 C.F.R. § 1.6003(d), the shot clock is tolled when the local government notifies the Applicant within thirty days of filing that the Application is incomplete. The clock is further tolled during the period the Applicant takes to respond to such a notice. As set forth throughout this letter, the Application is incomplete in multiple independent respects under both the Ordinance and the County's Application Guidelines. A timely incompleteness determination would have tolled the shot clock; to the extent such a determination has been or could be made, the Applicant cannot rely on the passage of time to bypass substantive review.

3. The shot clock does not relieve the Applicant of its burden.

Nothing in 47 U.S.C. § 332(c)(7) or 47 C.F.R. § 1.6003 alters Section [65] 19(C) of the Ordinance, which places the burden of proof on the Applicant. Nothing in the shot clock displaces the Commission's obligation to make findings supported by substantial evidence. The shot clock is a federal-law backstop on unreasonable delay; it is not a ratchet against thorough substantive review. The Commission should act within the applicable timeframe, but it should act on the merits.

If the Applicant believes the shot clock provides leverage to compel a particular outcome, the Applicant's remedy is judicial review under 47 U.S.C. § 332(c)(7)(B)(v). On the record before this Commission, a denial would be supported by substantial evidence on multiple independent grounds set forth in this letter.

II.J. Other Matters

The issues raised in this letter are based on an incomplete and erroneous Application without the benefit of discovery. I reserve the right to supplement and amend this letter with additional objections, information, and grounds for denial as information is received, including at the May 19, 2026 hearing on this Application. I also adopt and incorporate by reference the objections and grounds for denial set forth in the letters submitted by all other residents of Sandoval County in this proceeding, including, without limitation the letter attached hereto as Attachment 2.

Section [53] 7(M) of the Ordinance provides that "[a]ny and all representations made by the Applicant to the County on the record during the Application process" are part of the Application. That provision

reaches the oral representations the Applicant made during the pre-application meeting and site visit Section [53] 7(W) requires. Those oral representations were made to Daniel Beaman, then Director of the Sandoval County Planning and Zoning Department. Director Beaman vacated his office before the Application reached this Commission. Doraida Arias serves as Interim Director, and might not have been present for the pre-application meeting or site visit. Upon information and belief, the Department has not memorialized in writing what was said. Representations the Ordinance treats as part of the Application and binding on the Applicant are therefore not on the written record before this Commission, and the institutional witness who could speak to them is no longer with the Department. To the extent the Applicant would rely on its oral pre-application representations to support its position, those representations are not before the Commission. To the extent the Applicant's oral pre-application representations included concessions, hedges, or admissions, Section [53] 7(M) holds the Applicant to them; but the Department has lost the capacity to surface them. Either way, the Commission cannot reach a Section [65] 19(C) finding on substantial evidence the Commission has not seen. If the Department or the Applicant wishes the Commission to consider any part of the pre-application history, that history must be placed on the written record now through Director Beaman's testimony, through the Applicant's written ratification of what was said, or through the Department's written summary of the pre-application meeting and site visit.

The zoning the Applicant invokes was granted in 2010 "for a shopping center." Ordinance No. 10-11-18.7B6, recorded November 19, 2010, zoned the parcel "SU (Special Use) for a Shopping Center" and authorized as components of that shopping center a clinic, institutional uses, retail and service establishments, and, on Conditional Use review under CZO § 17 and in compliance with the Wireless Telecommunications Facilities Ordinance, a communications tower. The Adoption ordinance's development conditions are written in shopping-center terms, including a thirty-foot height cap on any building, a P&Z-approved Site Development Plan, and a traffic impact analysis "of traffic generated by the shopping center." No shopping center has been built or proposed on the parcel in the fifteen years and seven months since.

Section 10(C) of the Comprehensive Zoning Ordinance provides that where "a use authorized as a Special Use District is permanently discontinued, the Special Use District may be cancelled and removed under the provisions for an amendment to this Ordinance," and that the affected area "shall be rezoned to the prevailing zone district." The Commission has authority to recommend cancellation under Section 10(C). The Commission cannot approve a Conditional Use permit on the strength of an SU designation whose underlying purpose has not been pursued for more than fifteen years and whose grounds for removal lie within the Commission's own jurisdiction. The parcel does not carry the zoning the Applicant claims. On that independent ground, the Application should be denied. I reserve all related arguments, including, without limitation, those addressed to the SU's stated purpose, to its development conditions, and to its height limitation, for further development on any subsequent review.

Conclusion.

For the reasons set forth in Section I above, I respectfully request that the Commission deny Application CU-26-001. Each of the five grounds in Section I—the Section [53] 7(B) misrepresentations, the Section [55] 9 alternatives failure, the Section [61] 15 setback deficiency, the Section [53] 7(O), 7(P), [58] 12(B), and [51] 5. ¶ 24 substantive concealment failure, and the Section [55] 9(D), 9(F)(2) and Placitas Area

Plan conflict with rural-residential character—independently supports denial. Taken together, they overwhelm any case for approval the Applicant has placed in the record.

If the Commission declines to deny, then for the reasons set forth in Section II above, the Commission should at a minimum continue the public hearing and direct the Applicant to file an amended, complete Application that (i) describes a single, properly noticed proposed location; (ii) is supported by a duly certified title report establishing the Applicant's authority to lease the parcel; (iii) is accompanied by a balloon test conducted in compliance with every element of Section [53] 7(Y), at the actual proposed location; (iv) is supported by a topographic and geomorphologic certification, an RF Compliance Report, a Visual Impact Assessment, and structural and geotechnical analyses, each keyed to the actual proposed location; (v) is supported by an Alternatives Analysis that satisfies Section X of the Application Guidelines; (vi) demonstrates compliance with Section [61] 15's setback requirements; and (vii) proposes building materials and a concealment design that, in fact, harmonize with the natural surroundings of Placitas.

The FCC shot clock does not require otherwise. A denial supported by substantial evidence—or, in the alternative, a continuance based on a timely incompleteness determination—fully discharges the Commission's obligations under 47 U.S.C. § 332(c)(7) and 47 C.F.R. § 1.6003.

I appreciate the Commission's consideration. I would be happy to address any of these points further at the May 19 hearing or in writing in advance of the hearing if the Commission would find that useful.

Respectfully,

Brian Vogler
34 Ridge Rd.
Placitas, NM 87043

ATTACHMENT 1

Return to FATICO/Main 2569892D5

Real Estate Contract

Property Address: Vacant Land / NE Corner of Highway 165 and Tierra Madre Road, New Mexico

This form does not contain disclosures required by the Consumer Protection Act "Truth in Lending" (TILA) and/or Federal Reserve Regulation Z (Regulation Z). Use this form only in conjunction with another instrument incorporating the required disclosures or for transactions exempt from TILA and Regulation Z. Also, effective January 1, 2014, TILA has placed restrictions on certain seller financing transactions. Use this form only for transactions that comply with or are exempt from such restrictions.

THIS REAL ESTATE CONTRACT (this "Contract") IS MADE on the **15th** day of **July, 2021** (the "Effective Date"), by **Orville C. McCallister and Judith A. McCallister, husband and wife,** whose address is **92 Homesteads Road, Placitas New Mexico 87043** (the "Seller"), and **Racquel Huslig, an unmarried woman,** whose address is **777 Tunnel Springs Road, Placitas, New Mexico 87043** (the "Buyer"), who is purchasing as an INDIVIDUAL. RH

Seller and Buyer agree:

1. **SALE:** Seller sells to Buyer the following described real estate (the "Property"), in the County of **Sandoval** and State of New Mexico:

Tract 5A-1A-W, Placitas Homesteads, as shown on the Claim of Exemption Lot Line Adjustment Plat Tracts 5A-1A-E & 5A-1A-W, Placitas Homesteads, in Section 35, T.13N., R.4E., N.M.P.M., Sandoval County, New Mexico, filed in the Office of the County Clerk of Sandoval County, New Mexico, on June 12, 2020, in Plat Book 3, Page 4546;

Subject to reservations, restrictions, covenants, easements of record, taxes and assessments and the "Prior Obligations" (the "Permitted Exceptions").

2021025157 B: 424 P: 25157 REC
07/16/2021 03:33:52 PM Page 1 of 6
Anne Brady-Romero, County Clerk-Sandoval County, NM

2. **PRICE AND PAYMENT:**

A. **BUYER WILL PAY:**

CONTRACT SALES PRICE:
(Total of Down Payment, Assumed Prior Obligations and Balance Due Seller)
$575,000.00

(FIVE HUNDRED SEVENTY FIVE THOUSAND AND NO/100 DOLLARS)

(1) DOWN PAYMENT
$75,000.00

(SEVENTY FIVE THOUSAND AND NO/100 DOLLARS)

(2) ASSUMED PRIOR OBLIGATION
$0.00

(ZERO AND NO/100 DOLLARS)

(3) BALANCE DUE SELLER (including wrapped Prior Obligations)
$500,000.00

(FIVE HUNDRED THOUSAND AND NO/100 DOLLARS)

PAYABLE AS FOLLOWS:

In monthly installments of $3,299.78 each, or more, at Buyer's option, including interest from date hereof on the unpaid principal balance at the rate of 5.00% per annum, commencing August 15, 2021 and on or before the 15th day of each successive month thereafter until paid in full.

Prior Inspection by Buyer of Property (Including Improvements) and Acceptance "As Is" and "With All Faults." Seller has afforded the Buyer with the opportunity to inspect the Property (including any Improvements), and Buyer has inspected the Property (and including any Improvements) to such extent and degree as Buyer desires. Buyer accepts the Property (including any Improvements) "as is" and "with all faults" and acknowledges that Seller (including any broker, employee or agent representing Seller) has made no verbal or written statement, statement of condition or representation or warranty which is inconsistent with Buyer's purchase of the Property and Improvements on the basis described herein.

If not sooner paid pursuant to the terms of this Contract, the entire Balance Due Seller shall be due and payable thirty (30) years from the date of the first payment.

B. INTEREST ON BALANCE DUE SELLER. Except as specifically stated to the contrary in Paragraph 2A, the Balance Due Seller will bear interest at the rate of **Five per centum (5.00%) per year (the "Interest Rate")** from the Effective Date, and the payments will be paid to Escrow Agent (named below) and continue until the entire Balance Due Seller plus any accrued interest due to Seller is fully paid.

C. LATE CHARGES AND COLLECTION COSTS. A late charge of **$75.00** will be due and payable by Buyer on any payment that is over **fifteen (15)** days overdue. Late charges will be paid to Seller as additional interest. Unless otherwise instructed by Seller in writing, Escrow Agent may accept a regular payment without the late charge, which shall be due upon demand.

D. APPLICATION OF PAYMENTS ON BALANCE DUE SELLER.

DAILY INTEREST. Payments will be applied as of the date of receipt by Escrow Agent, first to accrued interest then to the Balance Due Seller.

All payments will be assumed to be regular payments, and not prepayments, unless otherwise specified by Buyer in writing at the time of delivering the payments to Escrow Agent. Buyer may prepay all or any part of the Balance Due Seller. Any prepayment will be credited first to accrued interest, then to the Balance Due Seller, and then to Prior Obligations assumed by Buyer. Notwithstanding any prepayments, Buyer will make the next regularly scheduled payments.

3. PRIOR OBLIGATIONS.

NONE

4. BUYER TO MAINTAIN PROPERTY, PAY INSURANCE, TAXES AND PAVING, UTILITY AND OTHER LIENS AND CHARGES; AND SELLER'S RIGHTS.

A. MAINTENANCE. Buyer will maintain the Property in as good condition as on the Effective Date, excepting normal wear and tear. Buyer will obey all applicable laws governing the use of the Property, including but not limited to environmental laws.

B. INSURANCE. Buyer will maintain the following insurance coverage with an insurance company satisfactory to Seller. Such insurance will be maintained for the benefit of Buyer and Seller as their interests may appear. Buyer will furnish a copy of the insurance policy or certificate of the insurance policy to Seller annually before expiration of existing insurance stating that coverage will not be cancelled or diminished without a minimum of 15 days prior written notice to Seller.

(1) To protect the Buyer and Seller's respective interests in the Property, insurable improvements upon the Property shall be insured against the hazards covered by Fire and Extended Coverage Insurance in an amount not less than the replacement costs of the improvements or the Balance Due Seller, whichever shall be greater, unless another amount is otherwise specified here: Other amount $_____.

(2) To protect Buyer and Seller's interests, personal liability insurance in an amount not less than **$500,000.00** unless otherwise specified as the following amount $_____ shall be maintained with Seller as additional insured.

»»Please fill in lines if other specified amounts are applicable.

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C. TAXES. The property taxes for the current year have been divided and prorated between Seller and Buyer as of the Effective Date, and Buyer is responsible for and will pay the taxes and assessments of every kind against the Property. If permitted by the applicable assessor, Buyer will have the Property assessed for taxation in Buyer's name. Unless taxes are paid through an escrow account, Buyer will send copies of paid tax receipts to Seller within 30 days after the taxes become due and payable.

D. PAVING, UTILITY AND OTHER IMPROVEMENT LIENS AND CHARGES. Subject to proration, Buyer assumes any paving, utility or other improvement liens or charges now or later assessed against the Property and will pay all installments of principal and interest thereon that become due after the Effective Date.

E. SELLER'S RIGHTS. If Buyer fails to pay any amounts required to be paid by Paragraphs 4B, C and D before the amounts become delinquent, Seller may pay the amounts (but is not obligated to do so) for protection of the Property and Seller's interest in the Property. Payment of the amounts will not be deemed a waiver of Buyer's default for failure to pay the amounts, and the amounts that have been paid will be immediately due and payable to Seller, and will bear interest until paid at the highest Interest Rate provided in Paragraph 2B.

5. BUYER'S RIGHT TO POSSESSION. Buyer will be entitled to take and retain possession of the Property unless and until Buyer's rights in the Property are terminated by Seller as provided in Paragraph 8.

6. BUYER'S RIGHT TO SELL, ASSIGN, CONVEY, OR ENCUMBER. A sale, assignment, conveyance or encumbrance of all or any portion of Buyer's interest in this Contract or the Property to any person or entity (an "Assignee") constitutes a Transfer under this Contract.

NO SALE WITHOUT CONSENT OF SELLER.

CAUTION: THE FOLLOWING PARAGRAPH SEVERELY RESTRICTS THE RIGHT OF BUYER TO TRANSFER THIS CONTRACT AND THE PROPERTY.

A transfer without payment of the Balance Due Seller will require obtaining the prior written consent of Seller, which Seller will not unreasonably withhold. A Transfer without payment of the Balance Due Seller, and without the prior written consent of Seller, will be an event of default for which Seller will have the right to send a Default Notice pursuant to paragraph 8 and to demand payment of the Balance Due Seller.

7. TITLE INSURANCE OR ABSTRACT. Seller is delivering a Contract Purchaser's Title Insurance Policy to Buyer or Abstract of Title to Escrow Agent at the time this Contract is escrowed, showing insurable or marketable title to the Property as of the Effective Date, subject to the Permitted Exceptions, and Seller is not obligated to provide other evidence of title.

8. SELLER'S RIGHTS IF BUYER DEFAULTS.

A. DEFAULT NOTICE. Time is of the essence in this Contract. If Buyer fails to pay or perform any obligation of Buyer under this Contract, the failure will constitute a default and Seller may give notice of default to Buyer, specifying the default and the curative action required (the "Default Notice"), at Buyer's mailing address as follows: 77 **Tunnel Springs Road, Placitas, New Mexico 87043**, or at such other address that Buyer may designate by a written, signed statement delivered to Escrow Agent. If Escrow Agent or Seller's attorney sends a Default Notice, Buyer will pay within the time allowed the additional sum of $175.00, plus gross receipts tax and postage, for fees and costs in connection with sending of the Default Notice.

B. MANNER OF GIVING DEFAULT NOTICE. Default Notice will be given in writing by certified mail, return receipt requested, and regular first class mail, addressed to Buyer at the address for Buyer provided in Paragraph 8A, with a copy to Escrow Agent. Default Notice given as provided in Paragraph 8A is sufficient for all purposes, whether or not the Default Notice is actually received.

C. BUYER'S FAILURE TO CURE DEFAULT RESULTS IN TERMINATION OF BUYER'S EQUITABLE RIGHTS IN THE PROPERTY OR ACCELERATION OF BALANCE DUE SELLER.

(1) If Buyer fails or neglects to cure any default within **thirty (30)** days after the date Seller's Default Notice is mailed, then Seller may, at Seller's option, either

(a) declare the Balance Due Seller to be then due and proceed to enforce payment of the Balance Due Seller, plus any accrued interest, together with reasonable attorney's fees, postage and costs in which case the special warranty deed will remain in escrow; or

(b) terminate Buyer's rights in the Property and retain all sums paid as liquidated damages to that date for the use of the Property, and all rights of Buyer in the Property will end. If the Contract is terminated by Seller, Buyer will forfeit all payments made pursuant to this Contract. Buyer waives any claim to the payments if a default occurs and Seller elects to terminate Buyer's rights in the Property. If Buyer's rights in the Property are terminated, Buyer waives any and all rights and claims for reimbursement for improvements Buyer may have made to the Property. Buyer will be liable to Seller to the extent permitted by law for failure to comply with Paragraph 4A.

(2) If the final day for curing the default falls on a non-business day of Escrow Agent, then the period for curing the default will extend to the close of business on the next business day of Escrow Agent.

(3) Acceptance by Escrow Agent of any payment tendered will not be deemed a waiver by Seller of Buyer's default or extension of the time for cure of any default under this Contract.

D. AFFIDAVIT OF UNCURED DEFAULT AND ELECTION OF TERMINATION. A recordable affidavit (the "Default Affidavit") made by Seller, Seller's agent, or Escrow Agent, identifying the parties, stating the legal description of the Property or the recording data of this Contract, stating the date that Default Notice was given, stating that the specified default has not been cured within the time allowed and that Seller has elected to terminate Buyer's rights in the Property, and delivered to Escrow Agent, will be conclusive proof of the uncured default and election of termination of Buyer's rights in the Property.

E. LEGAL RIGHT TO EVICT BUYER. Following Seller's termination of Buyer's rights in the Property, Buyer is no longer entitled to possession of the Property and will immediately surrender possession of the same to Seller. In the event Buyer fails to surrender possession of the Property to Seller as required herein, Seller may file any action permitted by law in the district court in the county in which the Property is located to obtain possession of the Property and to remove Buyer therefrom.

F. NOTICE TO ASSIGNEES. In addition to sending a Default Notice to Buyer, Seller will send all Default Notices to all Assignees who have given written notice of their name, address, and interest in the Property and who have provided a copy of the Transfer Document to Escrow Agent.

G. RIGHTS AND OBLIGATIONS SURVIVING TERMINATION. In the event the Property is rented, upon termination of Buyer's rights in the Property, Buyer will provide an accounting to Seller of any prepaid rents and deposits received by Buyer from the Property, which obligation will survive termination. Notwithstanding the termination of Buyer's rights to the Property, Buyer will be liable to Seller for any failure to maintain the Property as required in Paragraph 4A as well as for any unpaid taxes or utilities liens which survive the termination of Buyer's rights, prepaid rent, and rental deposits.

9. **BINDING EFFECT.** This Contract will bind and benefit the heirs, devisees, personal representatives, successors and assigns of Seller and Buyer.

10. APPOINTMENT OF AND INSTRUCTIONS TO ESCROW AGENT.

A. **ESCROW AGENT.** Seller and Buyer appoint as Escrow Agent:

New Mexico Escrow Solutions
7920 Wyoming Blvd NE, Ste B1
Albuquerque, NM 87109

B. **ESCROW DOCUMENTS.** The following papers (the "Escrowed Documents") are placed in escrow:
(1) Signed copy of this Contract.
(2) Original Warranty Deed signed by Seller.
(3) Original Special Warranty Deed signed by Buyer.

C. **PRIOR OBLIGATIONS. NONE**

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D. FEES.

(1) The escrow fees of Escrow Agent will be paid as follows: **The Buyer agrees to pay all fees charged by the Escrow Agent for the servicing of this Real Estate Contract.**

If all or any part of the fees are paid by Buyer, that amount will be in addition to the amounts due from Buyer as Provided in Paragraph 2.

(2) Escrow Agent will accept all amounts paid in accordance with this Contract and remit the amounts received (less applicable escrow fees) as follows: **To Sellers as they may direct.**

E. ACCEPTANCE OF PAYMENTS. All payments will be deemed provisionally accepted when tendered, subject to determination by Escrow Agent of the correct amount and the timeliness of the payment. After each Default Notice is mailed to Buyer and any Assignee, pursuant to Paragraph 8, and a copy is furnished to Escrow Agent, Escrow Agent will not accept less than the full amount of the sum stated as due in the Default Notice.

F. RELEASE AND DELIVERY OF ESCROWED DOCUMENTS. Upon full payment of the Balance Due Seller and full performance under this Contract by Buyer, other than payment of the assumed Prior Obligations, Escrow Agent is directed to release and deliver the Escrowed Documents to Buyer.

G. DEFAULT BY BUYER. If Seller or Seller's agent delivers a Default Affidavit to Escrow Agent, or if Escrow Agent makes a Default Affidavit, then Escrow Agent will release and deliver the Escrowed Documents to Seller. Escrow Agent will be entitled to rely on the Default Affidavit as conclusive proof of termination.

No deed until price is fully paid

H. CHANGES IN ESCROW FEES. Escrow Agent may charge its standard escrow fees current as of the date the service is rendered, but all changes will become effective only after sixty (60) days written notice to the party or parties paying the fee of Escrow Agent.

I. INDEMNIFICATION. Seller and Buyer and any Assignee will each indemnify and save harmless Escrow Agent against all costs, damages, attorney's fees, expenses and liabilities which Escrow Agent may incur or sustain in connection with this Contract, including any interpleader or declaratory judgment action brought by Escrow Agent, but not for the failure of Escrow Agent to comply with this Paragraph 10 or the negligence or intentional act of Escrow Agent.

J. RESIGNATION BY ESCROW AGENT. Escrow Agent may resign as Escrow Agent by giving Seller and Buyer sixty (60) days written notice of intent to resign. Seller and Buyer will select a successor escrow agent and give written notice to Escrow Agent of such selection. If the parties fail, for any reason, to mutually select a successor escrow agent and give Escrow Agent written notice of such selection within sixty (60) days after mailing by Escrow Agent of notice of intent to resign, then Escrow Agent may select the successor escrow agent. Delivery by Escrow Agent to the successor escrow agent of all documents and funds, after deducting therefrom its charges and expenses, shall relieve Escrow Agent of all liability and responsibility for acts occurring after the date of the assignment in connection with this Contract.

11. ATTORNEY FEES. If either party uses the services of an attorney to enforce that party's rights or the other party's obligations under this Contract, the prevailing party will recover reasonable attorney's fees and costs from the non-prevailing party.

12. ENTIRE AGREEMENT. This Contract contains the entire agreement between the parties relating to the subject matter and supersedes any previous agreements, arrangements, undertakings or proposals, oral or written. This Contract may be varied only by a document signed by both parties.

13. FORCE MAJEURE. Neither party shall be liable for delay or failure to perform any obligation under this Contract if the delay or failure is caused by any circumstance beyond their reasonable control, including but not limited to, acts of God, war, civil unrest or industrial action.

14. LAW AND JURISDICTION. This Contract shall be governed by and constructed in accordance with the laws of New Mexico and each party agrees to submit to the exclusive jurisdiction of the courts of New Mexico.

15. SEVERANCE. If any provision of this Contract is held invalid, illegal or unenforceable for any reason by any court of competent jurisdiction, such provision shall be severed and the remainder of the provisions hereof shall continue in full force and effect as if this Contract has been agreed with the invalid illegal or unenforceable provision eliminated.

CAUTION: YOU SHOULD READ THIS ENTIRE CONTRACT BEFORE SIGNING. IF YOU DO NOT UNDERSTAND THIS CONTRACT, YOU SHOULD CONSULT YOUR ATTORNEY.

SELLER

Orville C. McCallister

Judith A. McCallister

BUYER

Racquel Huslig

ACKNOWLEDGMENT FOR NATURAL PERSONS

STATE OF NEW MEXICO }
COUNTY OF **Sandoval** } ss.

This instrument was acknowledged before me this **15th** day of **July, 2021**, by **Racquel Huslig.**

My commission expires: 10/04/2023
(Seal) OFFICIAL SEAL DIANA L. SANCHEZ NOTARY PUBLIC-STATE OF NEW MEXICO My commission expires: 10/04/2023

Notary Public

ACKNOWLEDGMENT FOR NATURAL PERSONS

STATE OF NEW MEXICO }
COUNTY OF **Sandoval** } ss.

This instrument was acknowledged before me this **15th** day of **July, 2021**, by **Orville C. McCallister and Judith A. McCallister.**

My commission expires: 10/04/2023
(Seal) OFFICIAL SEAL DIANA L. SANCHEZ NOTARY PUBLIC-STATE OF NEW MEXICO My commission expires: 10/04/2023

Notary Public

ATTACHMENT 2

Paul and Roberta Gabaldon
12 Strahl Ave.
Placitas, NM 87043

May 15, 2026

VIA EMAIL TO: P&ZMain@SandovalCountynm.gov

Planning & Zoning Department
Attn: Doraida Arias, Interim Director
Sandoval County Administration Building
1500 Idalia Road, Building "D", 2nd Floor
Bernalillo, NM 87004

Dear Members of the Commission:

Please place this letter in the record for this case.

We are residents of Placitas and submit this letter to raise an objection to the Commission's consideration of Application CU-26-001 (“Application”). Our objection concerns Sandoval County Ordinance No. 10-11-18.7B6: the special use ordinance recorded with the County Clerk on November 19, 2010 (“Ordinance”) that includes "telecommunications tower" among the uses that may be authorized on the subject property. Without that ordinance, a telecommunications tower is not among the uses for which the subject property may be approved.

New Mexico law sets out specific requirements that must be satisfied before a county ordinance takes effect. NMSA § 3-21-14(D) provides, in relevant part:

> The title and a general summary of the ordinance shall be published in a newspaper of general circulation in the county once each week for two consecutive weeks, the last date of publication being not less than fifteen nor more than thirty days prior to the effective date of the ordinance. No ordinance shall take effect until at least fifteen days after the last date of publication. It is a sufficient defense to any prosecution for violation of an ordinance to show that no publication was made.

Upon information and belief, the title and general summary of Ordinance No. 10-11-18.7B6 were never published in a newspaper of general circulation in Sandoval County in the manner required by NMSA § 3-21-14(D). An in-person request to the County Clerk for the proof of publication followed by an IPRA request for the same has produced no results.

Without the required publication, Ordinance No. 10-11-18.7B6 cannot take effect. Since a telecommunications tower is not among the uses for which the subject property may be approved, the Commission has no legal basis on which to grant Application CU-26-001.

We therefore respectfully request that, before the Commission takes any further action on Application CU-26-001, the County place in the record competent evidence demonstrating that the publication requirements of NMSA § 3-21-14(D) were fully satisfied with respect to Ordinance No. 10-11-18.7B6—specifically, proof of two consecutive weekly publications of the Ordinance's title and general summary in a newspaper of general circulation in Sandoval County, with the last date of publication falling not less than fifteen nor more than thirty days before the ordinance's stated effective date.

If such evidence cannot be produced, we respectfully request that the Commission deny Application CU-26-001, or in the alternative decline to act on it, on the ground that the Ordinance has not been shown to be in effect.

We further object that the published summary of the Ordinance, if any, failed to include notice that a telecommunications tower was among the allowed uses on the subject property.

Finally, the Ordinance states that the subject property was “zoned SU (special use) for a shopping center.” The list of uses the Ordinance allows on the property must be read in the context of that designation and of the list as a whole. "Telecommunications tower," when read alongside the other uses contemplated for a shopping-center site, cannot fairly be interpreted to mean a 75-foot freestanding monopole bearing no functional or aesthetic relationship to the shopping center the property was zoned to accommodate. The internally coherent reading of the Ordinance—the one that gives effect to the SU designation and to every term in the list of allowed uses—would limit "telecommunications tower" to facilities consistent with a shopping-center use, such as rooftop-mounted antennas or comparably modest installations integrated into the shopping center's structures. The Applicant's proposal is not within the fair import of the Ordinance's terms. Therefore, the Commission should deny the Application.

Numerous other written objections to the Application have been made to the Commission. We incorporate all such objections into this letter.

Respectfully,

Paul and Roberta Gabaldon