COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: January 7, 2016
(Updated from October 15, 2015)

TO: Zoning Hearing Officer

FROM: Planning Staff

SUBJECT: UPDATED STAFF REPORT: Consideration of a Use Permit Renewal and Amendment, pursuant to Sections 6500 and 6412.2 of the San Mateo County Zoning Regulations, to (1) allow the continued operation of an existing telecommunications facility, (2) legalize the addition of supporting equipment cabinets located within a ground lease area, (3) install two new panel antennas on an existing utility pole, and (4) install a 6-ft. fence around the ground equipment lease area (12'-6" by 18'-2"), located within two landscaped medians in the public-right-of-way on Alpine Road at Wildwood Lane in the unincorporated Stanford Weekend Acres area of San Mateo County. The Use Permit Amendment request includes a fence height exception for the 6-ft. fence within the public right-of-way. This item was continued from the November 5, 2015 Zoning Hearing Officer meeting.

County File Number: PLN 1999-00726 (AT&T)

PROPOSAL

The applicant, AT&T, requests a Use Permit Renewal and Amendment to continue the operation of an existing AT&T cellular facility located on Alpine Road, along a segment of the roadway designated a County scenic road. The existing facility consists of four (4) short panel antennas, linked in pairs, mounted to an existing 55-ft. tall utility pole, owned by Joint Pole Association, located within a landscaped median in the public right-of-way, south of the intersection of Alpine Road and Wildwood Lane. The centers of the existing antennas are 45 ft. above ground on the utility pole. Associated equipment cabinets are located north of the utility pole, in a separate landscaped median within the public right-of-way on the north side of the southern intersection of Alpine Road and Wildwood Lane, and include the following equipment for legalization: three (3) equipment cabinets/boxes, two (2) Radio Remote Units, and one (1) GPS antenna on an extended "H" frame that were installed without permits (see Attachment G). The existing facility is painted dark brown to blend into the natural scenic area. The subject Use Permit Amendment would legalize the unpermitted ground equipment.

In addition to legalizing ground equipment installed without a permit, the Use Permit Amendment includes the installation of two new panel antennas mounted by a 9'-7" tall bracket onto a second existing utility pole. The second utility pole is a 52-ft. tall utility pole owned by Joint Pole Association and is located next to the existing ground equipment lease area. The proposed antennas would have a centerline height of 35'-8" and a maximum height of 38 ft. Four Radio Remote Units (RRUs) would also be mounted by the bracket to the utility pole, two at 32 ft. in height and two located behind the proposed antennas (centerline height of 35'-8"). Additionally, two (2) new equipment cabinets and associated cables would be installed within the ground equipment area.

In response to neighbor concerns over the visual impact from expanded ground equipment over the years, the applicant proposes to install a 6-ft. tall redwood fence around the ground equipment lease area (12'-6" x 18'-2") to help screen the equipment from neighboring residential properties.

The Use Permit Amendment includes a fence height exception pursuant to Section 6412.2 of the County Zoning Regulations for the newly proposed 6-ft. tall fence enclosure, as 4 ft. is the maximum fence height allowed within the public-right-of-way.

RECOMMENDATION

That the Zoning Hearing Officer approve the Use Permit Renewal and Amendment, County File Number PLN 1999-00726, by making the required findings and adopting the conditions of approval listed in Attachment A.

BACKGROUND

Report Prepared By: Summer Burlison, Project Planner; 650/363-1815

Cellular Facility Owner: AT&T

Applicant: Tom Johnson of TSJ Consulting, Inc.

Property Owner: County of San Mateo

Location: Public right-of-way across from 2499 Alpine Road (existing utility pole with existing antennas and ground equipment lease area) and 2509 Alpine Road (existing utility pole with proposed new antennas), Stanford Weekend Acres

APN: Public right-of-way, across from APN 074-303-430 and APN 074-303-340, respectively

Existing Zoning: R-1/S-75 (Single-family residential/5,000 sq. ft. minimum parcel size)

General Plan Designation: Medium Density Residential

Sphere-of-Influence: City of Menlo Park

Existing Land Use: AT&T wireless telecommunications site within landscaped medians in County right-of-way

Flood Zone: Zone X (area of minimal flood hazard); Community Panel No. 06081C0312E, effective October 16, 2012

Environmental Evaluation: Categorically Exempt under Section 15303, Class 3, of the California Environmental Quality Act (CEQA) regarding the new construction of small structures.

Setting: The subject telecommunications facility is located within two landscaped medians between the Alpine Road corridor and adjacent residential development along Wildwood Lane. The Stanford Weekend Acres area is a single-family residential community that is partially bordered by Stanford Golf Course and largely surrounded by open space. This segment of Alpine Road is designated a County scenic road.

The existing AT&T facility consists of four (4) panel antennas, linked in pairs, mounted on an existing 55-ft. tall utility pole. The antenna centers are 45 ft. above ground on the utility pole, owned by Joint Pole Association, which is located in a landscaped median south of the southern intersection of Alpine Road and Wildwood Lane. Supporting ground equipment is located north of the subject utility pole, in a landscaped median on the north side of the intersection of Alpine Road and Wildwood Lane. The existing facility is painted dark brown to blend into the natural scenic area.

Chronology:

Date		Action
March 2, 2000	-	Use Permit (5-year term) approved for the original AT&T facility, PLN 1999-00726, on Alpine Road at Wildwood Lane. The facility consisted of 2 antennas (24 inches tall and 12 inches wide) mounted onto two existing utility poles and 1 equipment cabinet (28 sq. ft.).
October 26, 2005	-	Use Permit Renewal approved by the Zoning Hearing Officer (ZHO).
February 11, 2009	-	Minor modification approved, BLD 2009-00130, to replace one (1) equipment cabinet with three (3) smaller equipment cabinets due to upgraded technology.
June 14, 2010	-	Subject Use Permit Renewal (PLN 1999-00726) application submitted.

June 7, 2011	-	Subject Amendment application submitted and added to the proposed Use Permit Renewal.
June 11, 2014	-	Revised subject application submitted.
July 28, 2014	-	Subject application deemed complete.
December 4, 2014	-	ZHO public hearing. Item continued by the ZHO until January 15, 2015 (see Attachment L).
January 2015 - April 2015	-	Review of the project by the ZHO is postponed due to applicant's requests for continuance.
April 6, 2015	-	Applicant submits revised plans and supporting documents for modified project scope.
June 1, 2015	-	Applicant submits revised plans showing line-of-sight to equipment area as requested by the Department of Public Works (DPW).
June 25, 2015	-	Menlo Park Fire Protection District approval with conditions received by staff.
July 1, 2015 - August 18, 2015	-	Multiple DPW reviews of line-of-sight drawings.
August 25, 2015	-	DPW staff signs off on line-of-sight plan.
October 15, 2015	-	ZHO public hearing. Item continued to November 5, 2015 at the request of staff to allow time to research regulations pertaining to antenna height.
November 5, 2015	-	ZHO public hearing. Item continued at the request of the applicant to a date uncertain.
January 7, 2016	-	ZHO public hearing.

DISCUSSION

A. KEY ISSUE

1. Issues Discussed at Previous Zoning Hearing Officer Meetings

a. Continuance from December 4, 2014 Zoning Hearing Officer Meeting

This project, with the exception of the proposal of two new panel antennas with supporting pole-mounted equipment that was not previously considered, was originally continued from the December 4, 2014 Zoning Hearing Officer (ZHO) Meeting, to allow time for the applicant to address the following issues identified by the ZHO:

(1) Applicant to explore the possibility of reducing the square footage of the fenced area for the existing equipment.

The previously proposed fence footprint was 16'-6" by 23'-3" (383.6 sq. ft.). The current proposed plans show a ground equipment lease area of 12'-6" by 18'-2" (227 sq. ft.) to be fenced with a 6-ft. tall redwood fencing to help screen the equipment cabinets from public views along Alpine Road and Wildwood Lane. The proposed footprint dimensions will leave a maximum 3-ft. clearance around two sides of the equipment for access and maintenance/repair work, where 5-ft., 6-in. and 6-ft. clearances were previously proposed. The other sides will be reduced from 4-ft. and 7-ft. clearances between the equipment and fence to 1-ft. and 2.5 ft. The applicant states that the current proposed dimensions are the minimum necessary for reasonable access and service, including regular maintenance and/or repair work, to the equipment.

(2) Applicant to provide an on-site "mock-up" of the fenced area so that residents can comment on the potential impacts of the proposed fencing.

Temporary fencing was installed by the applicant on September 18, 2015, to mimic the proposed fence in dimensions and height. Email notification was sent out on September 21, 2015 to members on public record from the previous Zoning Hearing Officer meeting for this item, or that have expressed interest in this project.

Comments received by interested members of the public since the installation of temporary fencing are summarized below followed by applicable discussion and response from staff:

Comment #1: The applicant should seek to relocate the equipment to the south side of the southern intersection of Alpine Road and Wildwood Lane, in an open area between two rows of taller bushes that is used as a parking space.

Staff's Response #1: As raised by a neighbor, this option would only relocate the equipment significantly closer to the residences on the south side of the southern intersection of Alpine Road at Wildwood Lane and would eliminate the areas use as a parking space.

Specifically, the suggested location would put the ground equipment approximately 25 ft. from the nearest residence, which would be much closer than its current location of 75 ft. from the nearest residence. Additionally, relocation would increase the potential noise impacts to a different segment of residences along Wildwood Lane. Therefore, staff does not support the relocation of the equipment to the suggested location.

Comment #2: Based on the location of the ground equipment and the proposed redwood fence within a landscaped median along Alpine Road, and given a few past incidences of arson caused by cigarette litter, the commenter suggests that the first 18-inches of the fence be constructed of a non-flammable material in case of a grass fire.

Staff's Response #2: Given the concern raised for fire hazard, staff recommends Condition of Approval No. 17 to require the applicant to construct the fence using fire-resistant material that would maintain a natural wood color and appearance, subject to review and approval by the Planning and Building Department and Menlo Park Fire Protection District. Material specifications shall be identified on building plans for review and approval and verified in the field prior to final building inspection.

Comment #3: Operation of the ground equipment creates adverse noise impacts to nearby residences, although it is not able to be determined whether the noise is constant or intermittent.

Staff's Response #3: The applicant believes any noise generated from the equipment is limited to an AC fan that runs when the equipment gets hot. Staff has identified that the nearest residence is approximately 75 ft. away from the equipment, across Wildwood Lane frontage road. Nonetheless,

staff recommends Condition of Approval No. 20 to require a noise study be completed by the applicant to determine the facility's compliance with the County Noise Ordinance and measures necessary to attenuate sound levels from the equipment to achieve compliance with the Noise Ordinance be identified on building plans for review and approval and verified in the field prior to final building inspection.

Comment #4: The applicant should plant vegetative screening consisting of shrubs on the frontage road side of the proposed fence to improve and soften the visual impacts to the residences.

Staff's Response #4: The County's Wireless Telecommunications Facilities Regulations include provisions requiring screening of facilities with landscape consisting of non-invasive and/or native plant material. Therefore, in response to this comment, staff has added Condition of Approval No. 21 to require the applicant to plant drought-tolerant shrubs along the fence-line fronting the Wildwood Lane frontage road.

(3) Applicant to provide additional information regarding the need for this specific site in the overall AT&T network and the ramifications of either removing the site altogether or reducing the size of the equipment.

The applicant states that the subject telecommunication facility site is necessary as part of AT&T's local network to maintain connectivity for mobile users in the area. The nearest AT&T facility is approximately 3/10ths of a mile south on Alpine Road. The subject site helps provide coverage along the curvilinear portion of Alpine Road. Removal of this site would compromise "in-building" service coverage to the surrounding area, including the Stowe Lane neighborhood (located north of the project site). See Attachment M for the applicant's full response.

The applicant has stated that for optimal service and function, equipment cabinets must be located as close to their corresponding antennas as possible, with a maximum distance of 300 feet. AT&T has reviewed the following alternative locations for relocating their ground equipment and concluded the following:

(a) Co-location with existing AT&T site at the intersection of Alpine Road and Piers Lane (or Alpine Access Road): This location is over one-quarter mile from the subject

site's antennas and would exceed the maximum distance between the equipment and antennas.

(b) Next to existing antennas (landscaped median south of southern intersection of Alpine Road and Wildwood Lane): While this location would be optimal, as it would place the equipment cabinets immediately next to the antennas, it does not have the benefit of existing mature trees (as the current location does) or shrubbery to help screen it from public views. Also, this location is on a slightly straighter portion of Alpine Road than the current location and has less ground space. For these reasons, it is believed that relocating the equipment to this median would be more impactful to public views and visibility from vehicles along Alpine Road.

(c) Southwest side of Alpine Road (from existing antennas): The (opposite) west side of Alpine Road is a gently sloped hillside and therefore, would require the construction of a retaining wall for an equipment pad. Additionally, further study of the limits of the Alpine Road right-of-way would be necessary to determine whether the right-of-way is wide enough to accommodate AT&T's equipment and fence. This alternative would require trenching across, or boring under, Alpine Road to install power and telco (telephone and data) utility lines.

(d) Northwest side of Alpine Road: This location would require further study of the limits of the Alpine Road right-of-way to determine whether the right-of-way is wide enough to accommodate AT&T's equipment and fence. Additionally, power and telco utilities would need to be extended by trenching across, or boring under, Alpine Road.

Furthermore, the applicant indicates that the footprint of the equipment area for this facility is already reduced in scale because of site constraints and reduced clearances. Any further reduction in the equipment area would require a reduction in equipment and render the site inoperable, as every piece of equipment is an integral part of the network to provide the coverage and capacity being used in the area.

(4) Additional explanation from the County Department of Public Works (DPW) about its analysis of potential sight-

distance impacts or other potential safety impacts of the proposed fencing.

The County Department of Public Works (DPW) has reviewed the proposed project for potential safety impacts, particularly sight-distance impacts, based on the County's Department Sight Distance Policy (see Attachment N). According to the Policy, design speed of a roadway and stopping distance are factored into determining safe sight distance. Alpine Road is designed as a 40-mph roadway (posted speed along this segment of the roadway). The stopping distance criteria for this roadway speed is 300 ft. The delineated lines of sight for this segment of roadway, both for Alpine Road and Wildwood Lane, shown on the Line of Sight Plan Sheet (Attachment D), comply with the safe sight distance criteria.

b. Continuance from October 15, 2015 Zoning Hearing Officer Meeting

The project includes installation of two new antennas on a separate 55-ft. tall existing utility pole located next to the facility's ground equipment area. The mounting height of the new antennas will be 38 ft. above ground (to top of antennas), which exceeds the maximum allowed height of the Zoning District of 28 feet.

The proposal originally included a height limit exception for the new panel antennas to exceed the maximum height for structures allowed in the zoning district. On October 15, 2015, at the suggestion of Planning staff, the ZHO continued review of the item to November 5, 2015, to allow time to research regulations pertaining to antenna height. Upon further review of applicable regulations pertaining to antenna height, Planning staff and County Counsel determined that the Zoning Regulations do not provide an appropriate exception mechanism to allow an exceedance of the height limit for panel antennas.

However, as discussed in Section A.3 of this report, Planning staff has determined that the proposed height of the project, while non-compliant with the zoning regulations, represents the least intrusive means of filling a significant gap in coverage in the area. Therefore, Planning staff is recommending approval of the proposed 38-ft. high antennas.

2. Conformance with the General Plan

Staff has determined that the project complies with all applicable County General Plan Policies, specifically:

Policies 4.40 (*Scenic Roads*) and 4.43 (*Criteria for Scenic Road Designation)* give special recognition and protection to travel routes in rural areas that represent a variety and quality of scenery and which provide outstanding views of scenic vistas, natural landscape features, historical sites and attractive urban development.

According to Table 4.6 (*Designated State and County Scenic Roads*) in the General Plan, Alpine Road from Alameda de Las Pulgas to Portola Road, is designated a County scenic road. The subject project site is located within this designated segment of Alpine Road. In order to reduce visual impacts to the scenic roadway, the applicant proposes to install a 6-ft. tall fence with a wood-like appearance around the ground equipment area. Condition of Approval No. 21 requires the applicant to plant drought-tolerant shrubs along the fence-line fronting the Wildwood Lane frontage road.

Policies 4.20 (*Utility Structures*) and 4.44 (*Designation of Scenic Roads and Corridors*) require minimizing the appearance of utility structures and designate Alpine Road (from Alameda de las Pulgas to Portola Road) as a County scenic road, although not a mapped scenic corridor area.

The addition of unpermitted ground equipment has resulted in slightly increased visual impacts, as the project site is located in an open land-scaped median within the right-of-way along Alpine Road. A 6-ft. tall fence is proposed around the ground equipment lease area (12'-6" by 18'-2") to help screen the equipment from the residential properties on Wildwood Lane (see Attachment I). The proposed fenced area is limited to the minimum area necessary for reasonable access and service to the equipment. The Department of Public Works has reviewed and approved the unpermitted and proposed changes, including review to ensure that there are no line of sight impacts.

Additionally, the new antennas will be positioned between 33' and 38' from the ground. Due to their proposed mounting height on the existing utility pole, the new antennas would be above the natural view of drivers, pedestrians, and private property owners in the area. To ensure that visual impacts are minimized, a condition has been included to require the antennas to be painted a non-reflective dark brown color to match the existing utility pole and to blend the facility in with the surrounding natural rural setting.

3. Conformance with the Zoning Regulations

Maximum Allowed Height for Antennas

The project area is zoned R-1/S-75 (Single-Family Residential/ 5,000 sq. ft. minimum parcel size). The zoning district standards, with the

exception of height, are not applicable since the site is located within the Alpine Road public right-of-way.

The maximum allowed height in the R-1/S-75 District is 28 feet. The project includes installation of two new antennas on a separate 55-ft. tall existing utility pole located next to the facility's ground equipment area. The mounting height of the new antennas will be 38' above ground (to top of antennas), which exceeds the maximum allowed height of the Zoning District.

Section 6512.2.I(2) of the Zoning Regulations, Chapter 24.5 (Wireless Telecommunication Facilities), allows the proposed antennas to exceed the maximum height for structures allowed in the zoning district, by (a) 10% of the height of the existing structure, or (b) by 5 ft., whichever is less. The standard would require the proposed antennas to comply with a maximum height of 33 ft., as determined by the calculations below:

a. 10% of the 55-ft. tall utility pole = 5.5 ft. + 28 ft. (maximum zoning district height) = 33.5 ft.

Or

b. 5 ft. + 28 ft. (maximum zoning district height) = 33 ft.

Since (b) is less than (a), the maximum height for the proposed antennas is 33 feet.

The height of the new antennas will exceed the above allowed height. The Telecommunications Act of 1996 prohibits localities from adopting or enforcing regulations that prohibit or have the effect of prohibiting wireless services. In order to establish a prohibition in violation of this rule, an applicant must show: (1) that the locality has a general policy that effectively guarantees the rejection of all wireless facility applications; or (2) that the denial of an application for a single site is "tantamount" to a general prohibition of service. To make the latter showing, the wireless provider must demonstrate: (1) that there is an effective absence of coverage in the area surrounding the proposed facility; and (2) that there is a lack of reasonable alternative sites to provide coverage or that further reasonable efforts to gain approval for alternative facilities. The effective absence of coverage does not mean a total absence; it may mean coverage containing significant gaps. Service that is less than optimal is not the prohibition of service, but what constitutes a "significant gap" cannot be defined metrically by simply looking at the geographic percentage of coverage or the percentage of dropped calls. It is a contextual term that must take into consideration the purposes of the Telecommunications Act itself.

Therefore, there exists a theoretical possibility in the context of any application for a wireless facility that the denial of an individual permit could amount to a prohibition of service if the service objective could only be met with a particular site or a particular configuration, but this is an unusual circumstance. In addition, the provider of wireless services can be required to show that the manner in which it proposes to fill the significant gap in services is the least intrusive on the values that the denial sought to serve. Here, the provider's method of locating the antenna panels in the center between the power lines and the telecommunications lines on the utility pole would likely be found to be the means of providing service that is least intrusive on the values the zoning regulation seeks to serve, namely, the visual bulk of structures and aesthetic impacts of towers. Accordingly, Planning staff believes that although the application calls for the installation of a structure on an existing utility pole at a height that is technically non-compliant with the zoning regulation, the provider would likely prevail in a challenge to the application of the ordinance to this particular facility on these facts, because their proposal represents the least intrusive means of filling a significant gap in coverage (see Attachment O). In conclusion, Planning staff supports the approval of the project in that the proposed height of the project, while non-compliant with the zoning regulations, represents the least intrusive means of filling a significant gap in coverage in the area.

Maximum Allowed Height for Fences

A fence height exception is being requested under the Use Permit Amendment to allow the installation of a 6-ft. tall fence around the ground equipment area (12'-6" by 18'-2") where 4 ft. is the maximum allowed fence height within the public right-of-way. The fence is being proposed in response to concerns of the visual impact of the expanded ground equipment area to residential neighbors. The fence is being limited to the minimum area possible while still meeting access and safety clearances around the equipment.

The Department of Public Works has reviewed the proposed fence and determined that the fence height exception would not jeopardize public safety. The fence would provide screening of the ground equipment and would increase safety and security by limiting public access to the facility's equipment area. In addition, the fence is conditioned to maintain a natural wood appearance that will blend in with the natural scenic area along Alpine Road. Request for the fence height exception was included as part of the required public hearing notification sent to both property owners within 300 ft. and to the Stanford Weekend Acres Homeowners Association.

4. Conformance with the Wireless Telecommunication Facilities Regulations

According to Section 6512.6 of the Wireless Telecommunication Facilities Regulations, existing facilities built prior to January 9, 2009 are subject to the provisions of the Regulations related to new facilities. Staff has reviewed the project against the provisions of the Wireless Telecommunication Facilities Regulations and determined that the project complies with the applicable standards discussed below.

a. Development and Design Standards

Section 6512.2.B prohibits wireless facilities from being located in residentially zoned areas, unless the applicant demonstrates that no other site allows feasible or adequate capacity and coverage. Evidence shall include an alternative site analysis within 2.5 miles of the proposed facility.

The existing AT&T facility has been in operation since its establishment in 2000. While there are a few areas of non-residential zoning within 2.5 miles of the existing facility (i.e., Stanford University, West Menlo Park, Ladera), the existing facility's location is necessary to adequately serve the facility's intended coverage area, given the surrounding topography. Additionally, staff has determined that modifications to the existing established facility, rather than the establishment of an additional new facility, is the most reasonable approach to meeting the coverage and capacity demands for the area. Furthermore, a radio frequency (RF) report prepared by Waterford Consultants, LLC confirms that the facility, with proposed modifications, would not exceed 5% of the maximum general population emission limits set by the Federal Communications Commission at ground level.

Section 6512.2.C prohibits wireless facilities from locating in areas where co-location on existing facilities would provide equivalent coverage with less environmental impact.

There are no identified existing wireless facilities immediately around the project site that would provide an opportunity for co-location without impacting the existing coverage and capacity levels this facility provides.

Section 6512.2.D requires new facilities to be constructed to support co-location, unless technologically infeasible.

Per Condition of Approval No. 10, AT&T would cooperate with any future co-location projects on the subject utility pole owned by the Joint Pole Association, as long as technologically feasible.

Section 6512.2.E - G seeks to minimize and mitigate visual impacts from public views by ensuring that appropriate vegetative screening, painting of equipment, or other methods of blending equipment in with the surrounding environment are implemented and require facilities to be constructed of non-reflective materials.

To minimize visual impacts, the applicant would be required by Condition of Approval No. 17 to ensure that all equipment visible to public views, including the antennas, are painted a non-reflective dark brown color to match the existing utility pole, permitted facility equipment, and rural nature of the surrounding area. Furthermore, to help screen ground-mounted equipment from neighboring residential views, the applicant is proposing to install and maintain a 6-ft. fence around the equipment lease area, per Condition of Approval No. 6. In response to comments from the public suggesting the planting of vegetative screening along the fence-line fronting the Wildwood Lane frontage road to further soften the fence appearance from residential properties, and to address this standard, Condition of Approval No. 21 has been added to require drought-tolerant plant species to be planted along the fence-line fronting the Wildwood Lane frontage road.

Section 6512.2.H requires new facilities to comply with all of the requirements of the underlying zoning district.

Refer to Section A.3 above.

Section 6512.2.K requires the overall footprint of a facility to be as minimal as possible and not cover more than 15% in area of the lot or an area greater than 1,600 square feet.

The modified AT&T wireless facility, which is located within the Alpine Road public right-of-way, has an overall footprint of less than 500 sq. ft. (including all ground equipment and utility pole/antennas).

b. Performance Standards

The project, as proposed and conditioned, meets the required performance standards of Section 6512.3 for lighting, licensing, provision of a permanent power source, timely removal of the facility, and visual resource protection. There is no lighting proposed, proper licenses would be maintained from both the Federal Communications

Commission (FCC) and California Public Utilities Commission (CPUC) per Condition of Approval No. 9, power for the facility would continue to be provided by PG&E, there would be minimal visual impact, and Condition of Approval No. 11 requires removal of the facility when necessary. Furthermore, road access to the site is existing and a condition has been added to require a noise study be completed and appropriate measures implemented to ensure any identified noise from the equipment is in compliance with the County Noise Ordinance.

5. Conformance with the Conditions of Last Approval

Listed below are the conditions of approval from the last use permit approval letter, dated October 6, 2005. Following each condition is staff's analysis of condition compliance and staff's recommendation regarding whether a particular condition should be retained or modified.

Current Planning Section

1. This approval applies only to the proposal as described in this report and plans originally approved by the Zoning Hearing Officer on March 2, 2000. Any minor revisions shall be subject to review and approval by the Community Development Director. Any other modifications shall be subject to a Use Permit Amendment application and public review process.

   Compliance with condition? No. Ground equipment has been added to the facility without proper authorization/permit from the Planning and Building Department. However, this unpermitted equipment is proposed to be legalized under the subject Use Permit Amendment.

   Recommend to retain condition? Yes, with modifications. See recommended Condition of Approval No. 1 in Attachment A.

2. The installation of equipment and improvements involved with this Use Permit shall be removed entirely at any such time that (a) this technology becomes obsolete, (b) this facility is no longer needed, or (c) if a co-location tower has been constructed on the property with a Use Permit and this facility can be relocated on that tower.

   Compliance with condition? Yes.

   Recommend to retain condition? Yes, with modifications to reflect current Wireless Telecommunication Facilities Ordinance language. See recommended Condition of Approval No. 11 in Attachment A.

3. This Use Permit shall be valid for a period of five (5) years following this date of approval. If the applicant wishes to renew this Use Permit, an application for renewal must be submitted to the Planning and Building Department six (6) months prior to expiration of this permit and shall be accompanied by the renewal application and fee applicable at that time.

   Compliance with condition? Yes. An application for Use Permit Renewal was submitted on June 14, 2010.

   Recommend to retain condition? Yes, with modifications to reflect a ten (10) year Use Permit term, as allowed under the County's Wireless Telecommunication Facilities Ordinance. See recommended Condition of Approval No. 2 in Attachment A.

4. A minimum 30-ft. clearance of all flammable vegetation must be maintained around all structures.

   Compliance with condition? Yes.

   Recommend to retain condition? Yes, see recommended Condition of Approval No. 16 in Attachment A.

5. Any satellite dishes or other elements that may be attached to the tower in the future must have their color approved by the Community Development Director.

   Compliance with condition? N/A.

   Recommend to retain condition? No. This condition is not applicable as there is no plan under the existing permit for additional equipment (other than the approved equipment) to be installed in/near the subject project location. Furthermore, any changes to the existing AT&T site (such as the subject proposal), or any new cellular tower, would require separate review and approval by the Planning and Building Department.

6. The applicant shall not enter into a contract with the landowner or lessee which reserves for one company exclusive use of the tower structure or the site for telecommunications facilities.

   Compliance with condition? Yes.

   Recommend to retain condition? Yes, see recommended Condition of Approval No. 10 in Attachment A.

7. The applicant shall file a copy of the current FCC Form #463, mobile radio authorization, with the County Planning Department. The applicant shall be required to keep a current copy of this form on file with the Planning Department throughout the life of this use.

   Compliance with condition? Yes.

   Recommend to retain condition? No. This condition has been replaced with Condition of Approval No. 9 in Attachment A.

8. The applicant shall provide payment of the outstanding balance due of $482.60 prior to final approval of this Use Permit Renewal.

   Compliance with condition? Yes. Payment of this outstanding balance was made on September 27, 2005.

   Recommend to retain condition? No.

6. Conformance with the Use Permit Findings

Under the provisions of Section 6500, wireless communication facilities are permitted in the R-1/S-75 Zoning District subject to the issuance of a Use Permit. In order for the Zoning Hearing Officer to approve the use permit renewal and amendment, the following findings must be made:

a. That the establishment, maintenance and/or conducting of the use will not, under the circumstances of this particular case, result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in said neighborhood.

This facility has been in operation since 2000. Regarding radio frequency (RF) exposure, the facility's antennas are not accessible to the general public due to their location on the existing utility pole. According to the report prepared by Waterford Consultants, LLC (Attachment K), the site, with proposed modifications, would comply with FCC guidelines limiting public exposure to radio frequency emissions. The maximum general public exposure level at ground would not exceed 5% of the FCC's maximum public exposure level. As described by Waterford Consultants, LLC, power density decreases significantly with distance from any antenna. The panel-type antennas (existing and proposed) are highly directional by design where their mounting elevation would serve to reduce the potential for the facility to exceed maximum public exposure levels at any location other than directly in front of the antennas. The additional antennas proposed under the amendment are a technology upgrade to existing

service, as part of the Long Term Evolution (LTE) upgrade (commonly referred to as 4G LTE). LTE is capable of delivering speeds up to 10 times faster than industry-average 3G speeds, and its technology offers lower latency (i.e., the processing time it takes to move data through a network) which helps to improve the quality of personal wireless services. Furthermore, LTE uses spectrum more efficiently than other technologies, thereby creating more space to carry data traffic and services and to deliver a better overall network experience.

AT&T's method of locating the antenna panels in the center between the power lines and the telecommunications lines on the utility pole is the least intrusive on the values the zoning regulation seeks to serve, namely, the visual bulk of structures and aesthetic impacts of towers. Accordingly, Planning staff believes that although the application calls for the installation of a structure on an existing utility pole at a height that is technically non-compliant with the zoning regulation, the project as proposed represents the least intrusive means of filling a significant gap in coverage.

Regarding aesthetic and view impacts, the proposed antennas would be located above the natural view of drivers, pedestrians, and private property owners in the area and would not exceed the height of surrounding trees in the area. No trees are proposed for removal and the antennas would be painted a non-reflective dark brown color to match the surrounding natural setting. The proposed antennas would not exceed the 55-ft. height of the existing utility pole onto which they would be mounted. While the proposed antenna height would be non-compliant with the zoning regulations, the proposal represents the least intrusive means of filling a significant gap in coverage in the area.

Regarding the proposed equipment fencing, the Department of Public Works has reviewed and approved the unpermitted and proposed changes, including review to ensure there are no line of sight impacts or public safety impacts. The proposed fence would provide screening of the ground equipment and would increase safety and security by limiting access to the facility's equipment area. In addition, the fence will have a wood-like appearance that will blend in with the natural scenic area along Alpine Road.

The facility will not generate significant traffic as it will continue to be unmanned and require minimal monthly maintenance visits. Additionally, a condition has been added to ensure the facility maintains compliance with the County's Noise Ordinance. Furthermore, the project site is not within the coastal zone, thus, will not pose any impacts to coastal resources. Therefore, staff has

determined that the project, as proposed and conditioned, will not have adverse impacts on persons or property in the vicinity.

b. That the project is necessary for the public health, safety, convenience or welfare of the community.

The project would allow for continued and improved network coverage and service for private citizens and public agencies in the area. Contiguous cellular coverage is important for facilitating daily business and conversations and in providing assistance in emergency situations. Furthermore, there is no evidence to suggest that the operation or proposed modification of this facility has or would cause a detriment to public health or safety. Although the proposed antennas are non-compliant with the zoning regulations, the proposal would fill a significant gap in coverage that is impactful for those in the area who rely on the AT&T network for broadband data services and use their mobile phones as their primary communication device.

Although the proposed fence will exceed the allowed height limit, staff has concluded from review of potential view and safety impacts, that the proposed modification would not jeopardize public safety or be detrimental to the public welfare and would provide an aesthetic benefit to the residential neighbors in the area and along the scenic roadway.

B. ENVIRONMENTAL REVIEW

This project is categorically exempt pursuant to Section 15303, Class 3, of the California Environmental Quality Act (CEQA), related to the new construction of small structures, and Section 15301, Class 1, related to the continued operation of an existing facility.

C. REVIEWING AGENCIES

San Mateo County Building Inspection Section
San Mateo County Department of Public Works
San Mateo County Real Property Division
Menlo Park Fire Protection District
Stanford Weekend Acres Homeowners Association

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Vicinity Map
C. Overall Site Plan, Sheet A-1
D. Line of Sight Plan, Sheet A-1.1

E. Equipment Plan, Sheet A-2
F. Existing and Proposed Elevations, Sheet A-3
G. Equipment Details, Sheet A-4
H. RF Barrier Signage, Sheet EME-1 and GN-2
I. Photo Simulations
J. Site Photos
K. Radio Frequency Report, prepared by Waterford Consultants, LLC, dated March 31, 2015
L. Zoning Hearing Officer Letter of Continuance, dated December 4, 2014
M. Memo from Leah Hernikl regarding Alternative Sites, dated January 27, 2015
N. San Mateo County Department of Public Works Line of Sight Policy
O. Propagation Maps, November 18, 2015

SB:pac - SSBZ0877_WPU.DOCX

Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 1999-00726 Hearing Date: January 7, 2016

Prepared By: Summer Burlison, Project Planner For Adoption By: Zoning Hearing Officer

RECOMMENDED FINDINGS

For the Environmental Review, Find:

1. That the project is exempt from environmental review, per Section 15303, Class 3, of the California Environmental Quality Act, related to the new construction of small structures, and Section 15301, Class 1, related to the continued operation of an existing facility.

For the Use Permit Renewal and Amendment, Find:

2. That the establishment, maintenance and/or conducting of the use will not, under the circumstances of this particular case, result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in said neighborhood. The facility will be below the maximum public exposure emission criteria as required by the Federal Communications Commission. The Department of Public Works has reviewed and approved the project, including the unpermitted equipment cabinet modifications and proposed 6-ft. tall fence intended to screen the ground equipment area to ensure there are no line of sight safety impacts. Despite the proposed antenna height being non-compliant with the zoning regulations, the proposal represents the least intrusive means of filling a significant gap in coverage in the area. The proposed antennas will be located above the natural view of drivers, pedestrians, and private property owners in the area, but will not exceed the height of surrounding trees in the area. In addition, the non-staffed facility only requires maintenance visits on an “as needed” basis and will not generate significant traffic. A Condition of Approval No. 20 has been added to ensure the equipment is in compliance with the County’s Noise Ordinance. Furthermore, the project site is not within the coastal zone and, thus, will not impact coastal resources. Therefore, staff has determined that the project, as proposed and conditioned, will not have adverse impacts on persons or property in the vicinity.

3. That the project is necessary for the public health, safety, convenience or welfare, since the facility will continue to provide improved network coverage service for private citizens and public agencies that have come to rely on coverage provided by this site to facilitate daily conversation and to provide assistance in emergency situations. The proposed antenna height, although non-compliant with the zoning regulations, represents the least intrusive means of filling a significant gap in coverage in the area. Furthermore, the over-height fence would not jeopardize public safety or be detrimental to the public welfare and would provide an aesthetic benefit to the residential neighbors in the area and along the scenic roadway.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. The approval applies only to the proposal as described in this report and materials approved by the Zoning Hearing Officer on January 7, 2016. Minor modifications to the project may be approved by the Community Development Director if they are consistent with the intent of, and in substantial conformance with, this approval.

2. The use permit shall be valid for ten (10) years from the date of final approval, and shall expire on January 7, 2026. Renewal of this permit shall be applied for six (6) months prior to expiration to the Planning and Building Department and shall be accompanied by the renewal application and fees applicable at that time.

3. One (1) administrative review shall be required five (5) years from final approval of this permit to verify compliance with the conditions of this approval. As part of the administrative review, the applicant shall provide documentation to the satisfaction of the Community Development Director that demonstrates compliance with Condition of Approval No. 8 and any other conditions for which documentation is required by the County. The applicant shall be responsible for paying any applicable administrative review fee at the time of this review.

4. Major changes in use or intensity not already approved shall require an amendment to the use permit, prior to implementation. Amendment to this use permit requires an application for amendment, payment of applicable fees, and consideration at a public hearing.

5. Within sixty (60) days of the final approval of this permit, the applicant shall obtain a building permit to legalize the unpermitted ground equipment and install the proposed fence. Failure to comply with this condition will result in a referral to the Code Compliance Section for further enforcement.

6. The applicant shall install the fence as approved and maintain it in good condition and perform repairs as necessary to serve its function as a screening device for

the equipment cabinet area. Any repairs and/or maintenance to the fence shall be of like color and materials.

7. The fence height shall not exceed 6 feet.

8. If a less visually obtrusive/reduced antenna technology becomes available for use during the life of this project, the applicant shall present a redesign incorporating this technology into the project for review by the Community Development Director and any parties that have expressed an interest.

9. The applicant shall maintain all necessary licenses and registrations from the Federal Communications Commission (FCC) and any other applicable regulatory bodies for the operation of the subject facility at this site. The applicant shall supply the Planning Department with evidence of such licenses and registrations. If any required license is ever revoked, the applicant shall inform the Planning Department of the revocation within ten (10) days of receiving notice of such revocation.

10. The applicant shall not enter into a contract with the landowner or lessee which reserves for one company exclusive use of the tower structure or the site for telecommunication facilities.

11. This facility and all equipment associated with it shall be removed in its entirety by the applicant within ninety (90) days if the FCC license and registration are revoked or if the facility is abandoned or no longer needed, and the site shall be restored and revegetated to blend with the surrounding area. The owner and/or operator of the facility shall notify the Planning Department upon abandonment of the facility. Restoration and revegetation shall be completed within two months of the removal of this facility.

12. There shall be no external lighting associated with this use. Wireless telecommunication facilities shall not be lighted or marked unless required by the FCC or Federal Aviation Administration (FAA).

13. Construction activities associated with the project shall be limited to 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturdays. Construction activities shall be prohibited on Sundays and any nationally observed holiday.

14. Any necessary utilities leading to, or associated with, the facility shall be underground.

15. This permit does not allow for the removal of any trees. Removal of any tree with a circumference of 38 inches or greater, as measured 4.5 ft. above the ground, shall require the submittal and approval of a separate Tree Removal Permit Application, along with any associated application fees.

16. A minimum 30-ft. clearance of all flammable vegetation must be maintained around all structures.

17. Prior to the issuance of a building permit, the applicant shall submit finish color/material samples for all components visible to the public, including antennas, supporting equipment, and fencing. The antennas and supporting equipment shall be painted a non-reflective dark brown to match the existing wood utility pole. Furthermore, the fence shall maintain a natural wood color and appearance and shall be constructed of fire-resistant material, subject to approval by the Planning and Building Department and Menlo Park Fire Protection District. The applicant shall submit photos to the Current Planning Section for color/material verification prior to final building inspection.

18. Prior to the Current Planning Section's approval of the building permit, the applicant shall provide the name, title, phone number, mailing address, and e-mail address of one or more contact persons at AT&T whom future correspondences from the County should be addressed. These person(s) will serve as the long-term contact person(s) for the project for the purposes of permit renewal. Should the long-term contact person(s) change, AT&T is responsible for contacting the County to establish new long-term contact person(s).

19. If technologically practical and without creating any interruption in commercial service caused by electronic magnetic interference (EMI), floor space, tower space and/or rack space for equipment in a wireless telecommunication facility shall be made available to the County for public safety communication use.

20. Noise levels produced by any equipment associated with the permitted facility shall not exceed the levels allowed by the County Noise Ordinance. Prior to the issuance of a building permit, a noise study prepared by a qualified professional shall be submitted to the Planning Department for review and approval by the Community Development Director. Any measures determined necessary to attenuate sound levels from the facility to achieve compliance with the County Noise Ordinance shall be identified on building plans for review and approval by the Planning and Building Department.

21. The applicant shall plant drought-tolerant plant species along the fence-line fronting the Wildwood Lane frontage road to soften the appearance of the proposed fence. The shrubs shall be maintained by the applicant at a height no greater than 6 feet. The applicant shall submit a landscape plan as part of the building permit submittal that identifies the number, location, size, and species of proposed plantings for review and approval prior to issuance of the building permit. The approved plantings shall be installed prior to final building inspection.

Building Inspection Section

22. The applicant shall apply for and obtain a building permit to legalize the unpermitted ground equipment and proposed structures being approved under this Use Permit Amendment.

Department of Public Works

23. No proposed construction work within the County right-of-way shall begin until County requirements for the issuance of an encroachment permit, including review of the plans, have been met and an encroachment permit issued.

Menlo Park Fire Protection District

24. The applicant shall provide address numbers on the exterior gate/fence of AT&T's enclosure. The address shall be visible from the street and contrasting in its background.

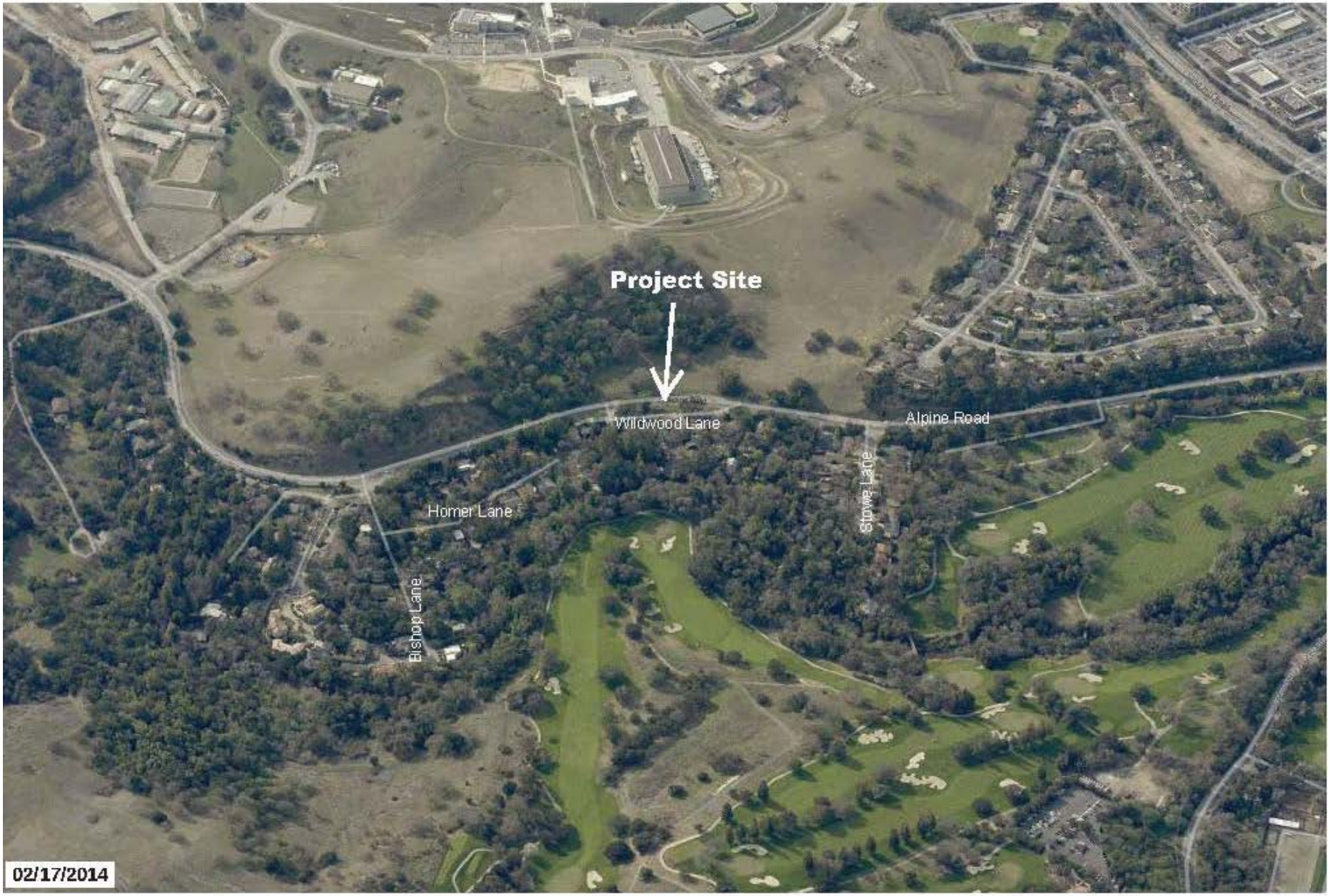
25. The applicant shall provide emergency contact information on the exterior gate/fence of AT&T's enclosure.

26. Approved plans and letter from the Menlo Park Fire Protection District must be on-site at the time of inspection.

27. Prior to final building inspection, contact Fire Inspector, Ron Keefer, of the Menlo Park Fire Protection District, at 650/688-8428, to schedule a final fire inspection. A 48-hour notice is required for all inspections.

SB:pac - SSBZ0877_WPU.DOCX

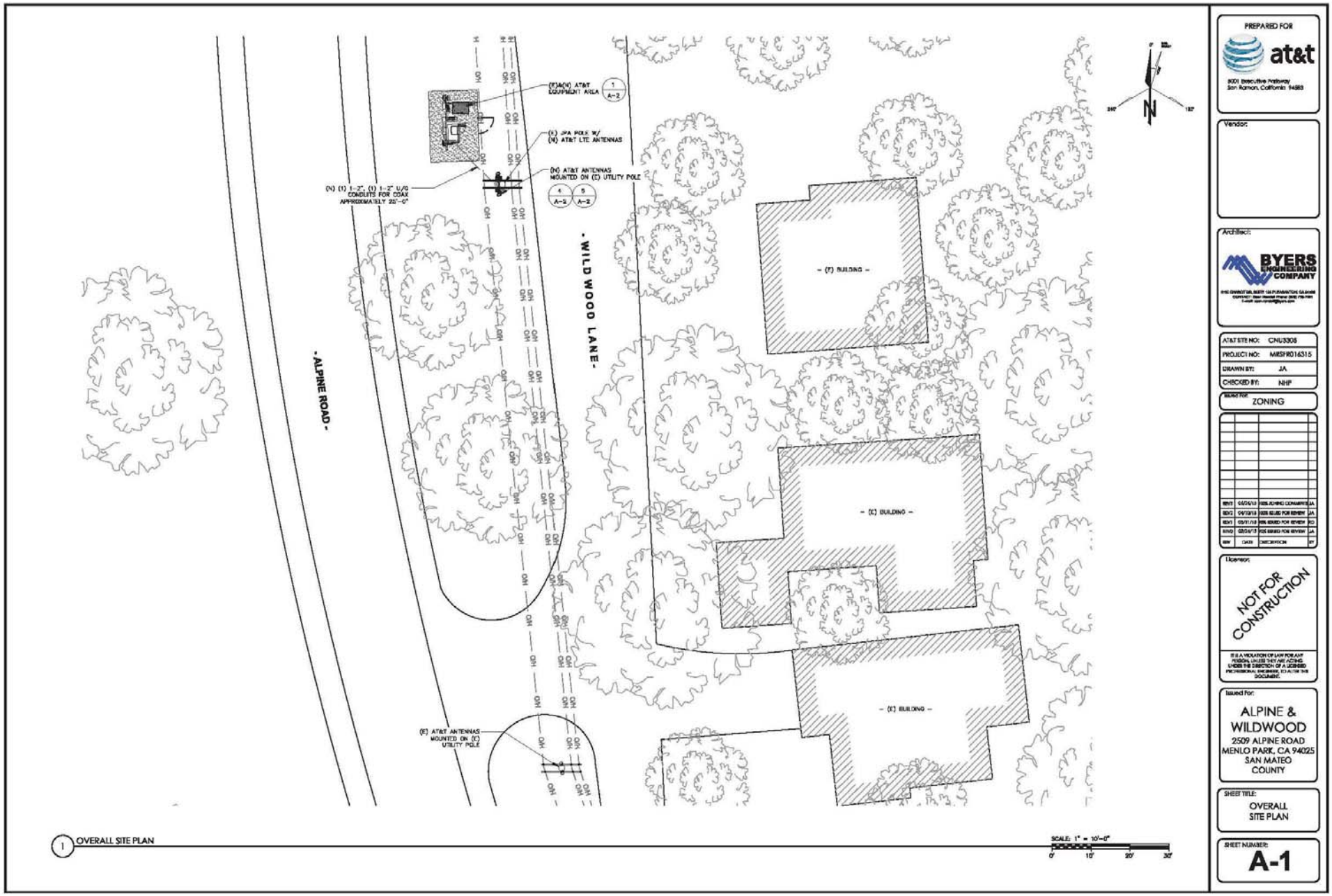
VICINITY MAP



San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **B**

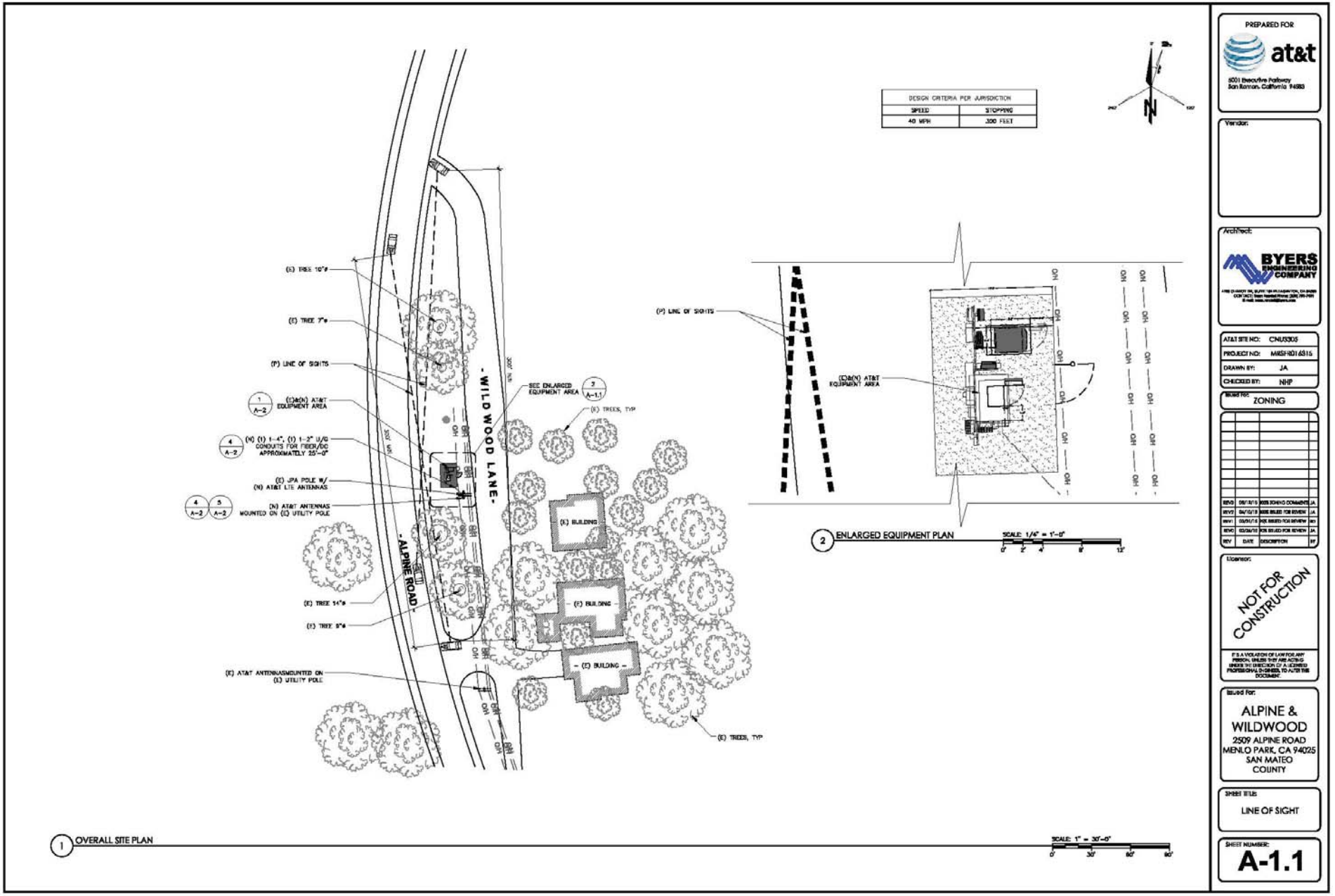
File Numbers: **PLN 1999-00726**



San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **C**

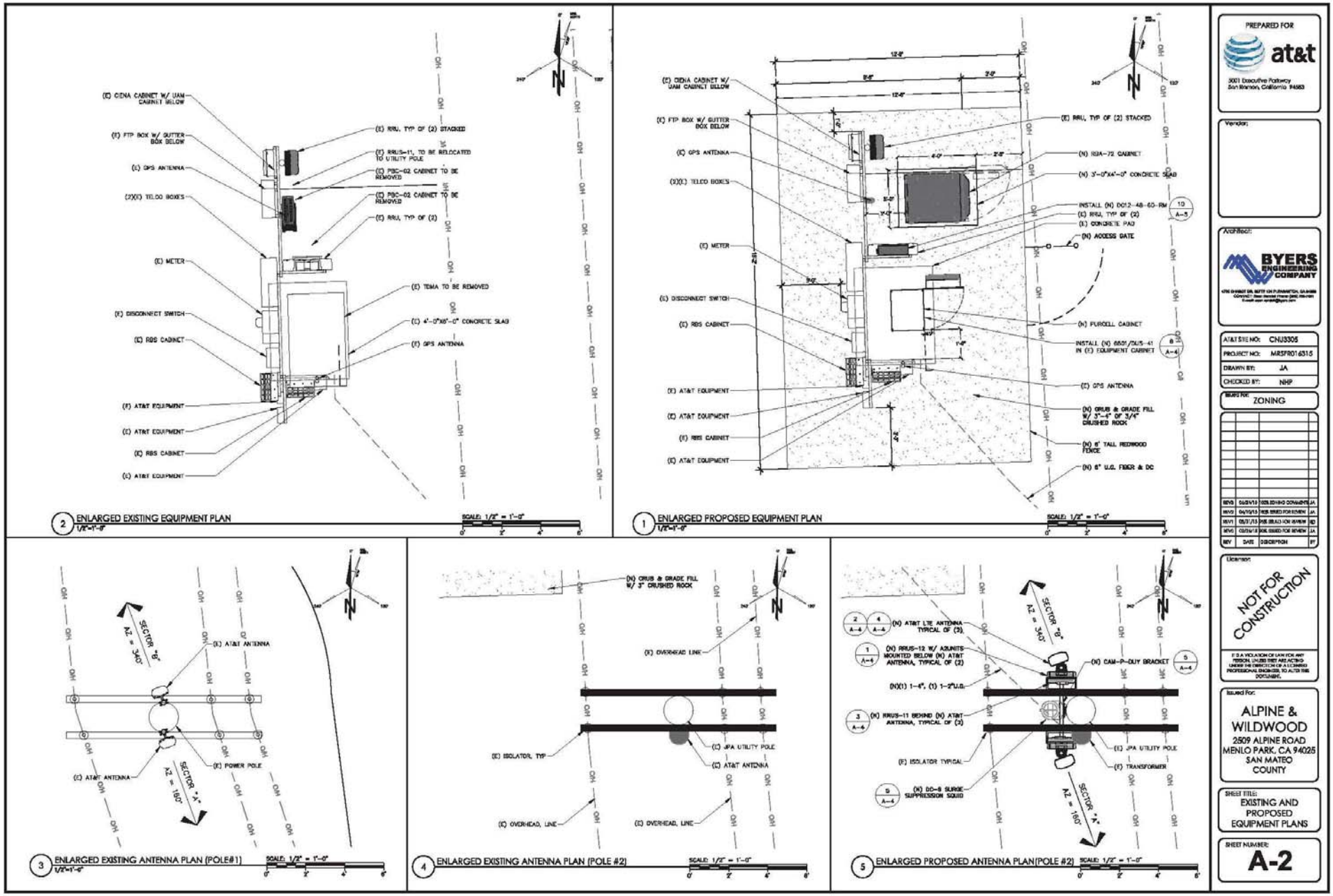
File Numbers: **PLN 1999-00726**



San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **D**

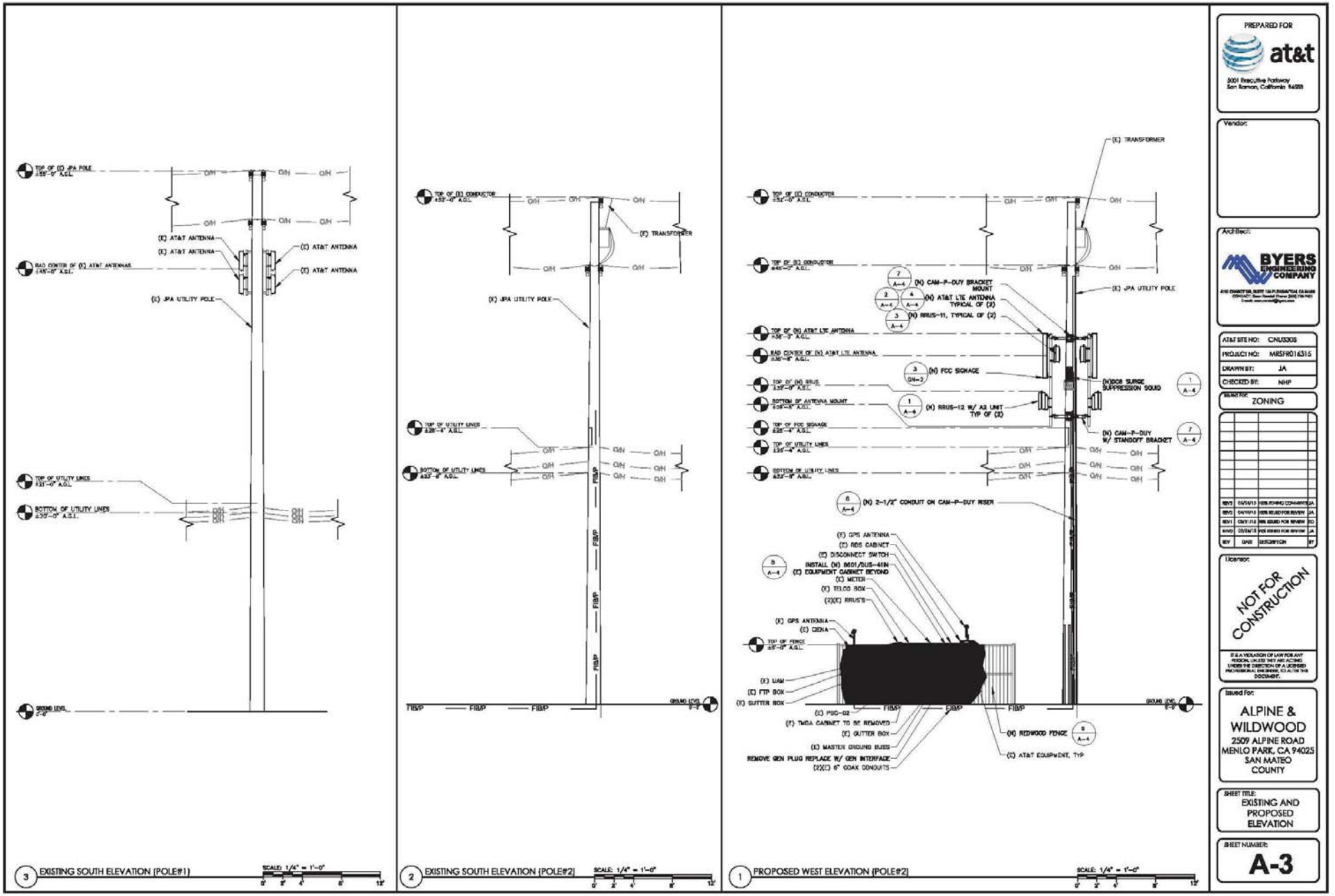
File Numbers: **PLN 1999-00726**



San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **E**

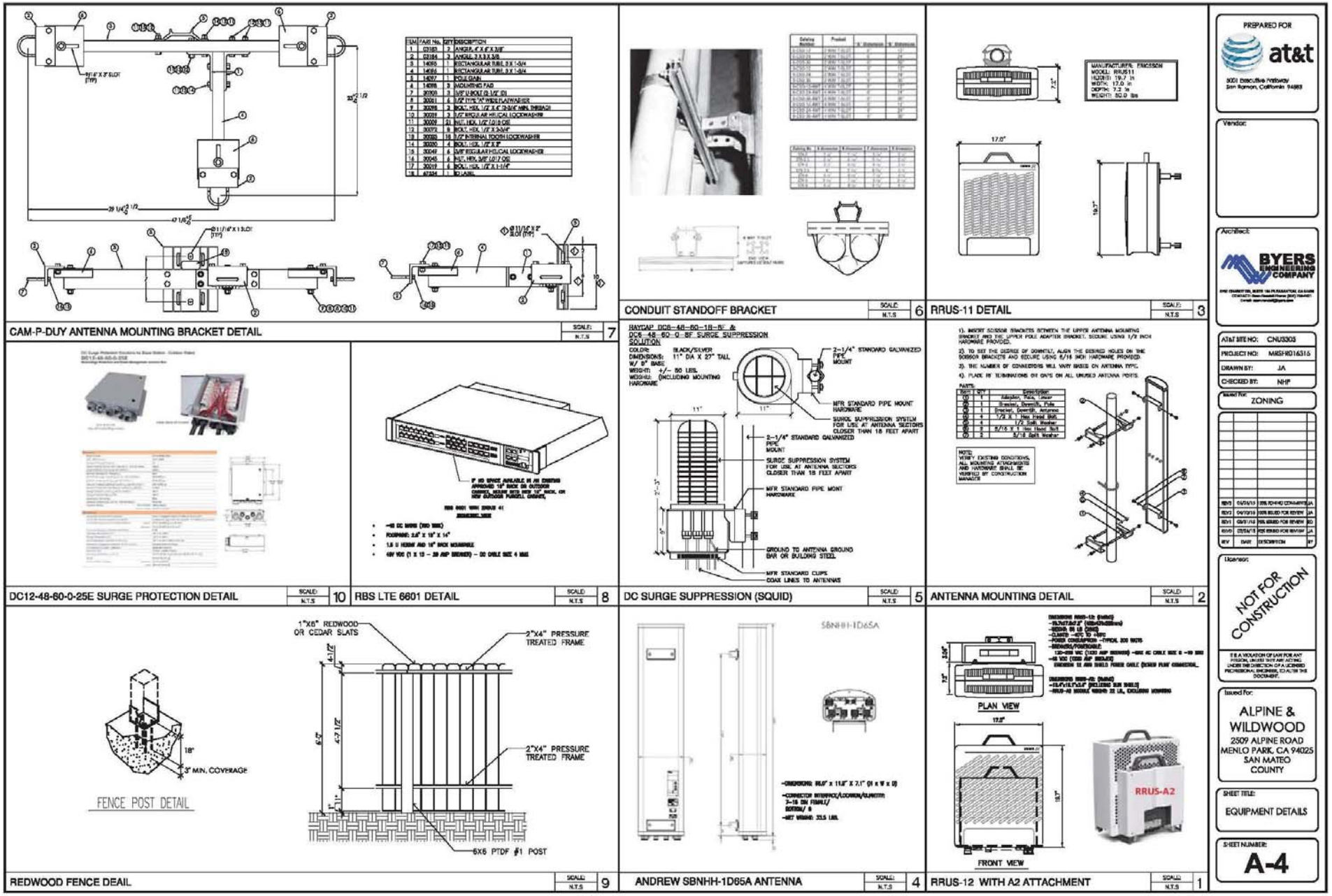
File Numbers: **PLN 1999-00726**



San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **F**

File Numbers: **PLN 1999-00726**



San Mateo County Zoning Hearing Officer Meeting

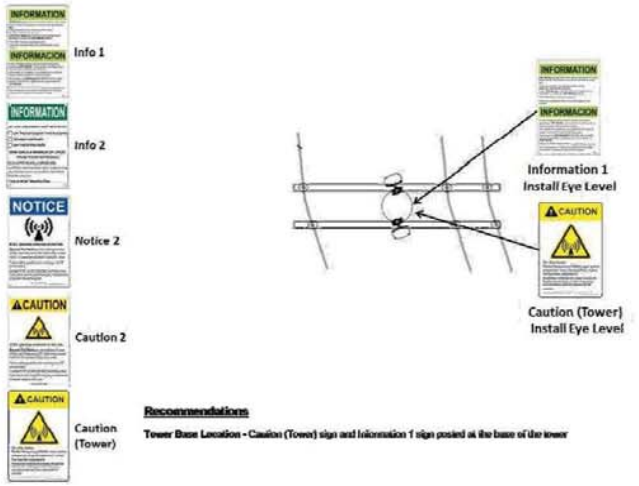
Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **G**

File Numbers: **PLN 1999-00726**

Site Name: Alpine-Wildwood
Site ID: 10005898

WATERFORD

8 Compliance Requirements Diagram- Tower 1



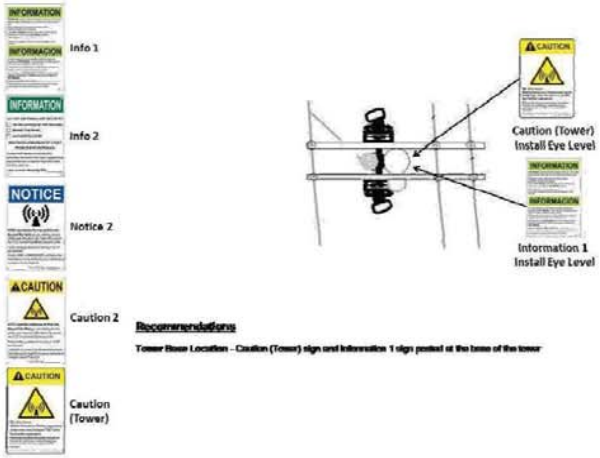
Recommendations

Tower Base Location - Caution (Tower) sign and Information 1 sign posted at the base of the tower

Site Name: Alpine-Wildwood
Site ID: 10005898

WATERFORD

9 Compliance Requirements Diagram-Tower 2



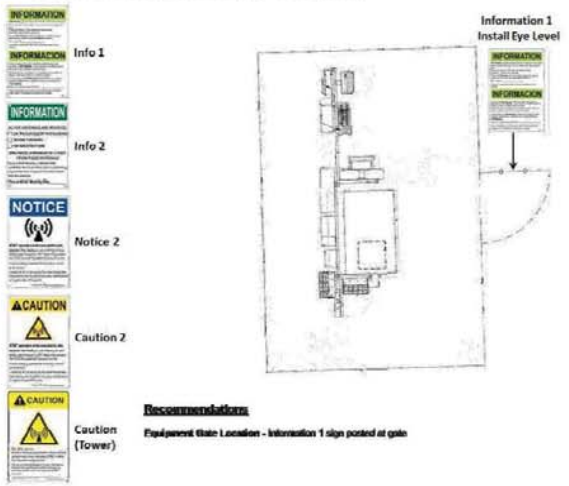
Recommendations

Tower Base Location - Caution (Tower) sign and Information 1 sign posted at the base of the tower

Site Name: Alpine-Wildwood
Site ID: 10005898

WATERFORD

10 Compliance Requirements Diagram- Equipment



Recommendations

Equipment Base Location - Information 1 sign posted at gate

WATERFORD
COMPLIANCE...FROM START TO SIGNAL

Theoretical Radio Frequency Emissions Compliance Report For Caldwell Consulting, Inc. on behalf of AT&T Mobility

Site Name:	Alpine-Wildwood	**Site Structure Type:**	Utility Pole
Site ID#	10005898	**Latitude:**	N37-25-4.20
Address:	2509 Alpine Road Menlo Park, CA 94025	**Longitude:**	W122-11-28.20
		County:	San Mateo

Building Photo

Report Information

Report Writer: Chase Warren **Report Date:** March 31, 2015

Compliance Statement

Site Compliance Statement: Based on the information collected, this site Will Be Compliant with FCC Rules and Regulations upon implementation of the recommendations set forth in Section 8 of this report.

PREPARED FOR
at&t
5001 Executive Parkway
San Ramon, California 94583

Vendor:

Architect:
BYERS ENGINEERING COMPANY

AT&T SITE NO:	CNU3305
PROJECT NO:	MRSFR016316
DRAWN BY:	JA
CHECKED BY:	NHP

ISSUED FOR: ZONING

REV	DATE	DESCRIPTION	BY
REV3	04/01/15	ADDL ZONING COMMENTS	JA
REV2	04/10/15	50% ISSUED FOR REVIEW	JA
REV1	03/31/15	50% ISSUED FOR REVIEW	RG
REV0	02/24/15	FOR ISSUED FOR REVIEW	JA

Licensor:
NOT FOR CONSTRUCTION

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

Issued For:
ALPINE & WILDWOOD
2509 ALPINE ROAD
MENLO PARK, CA 94025
SAN MATEO COUNTY

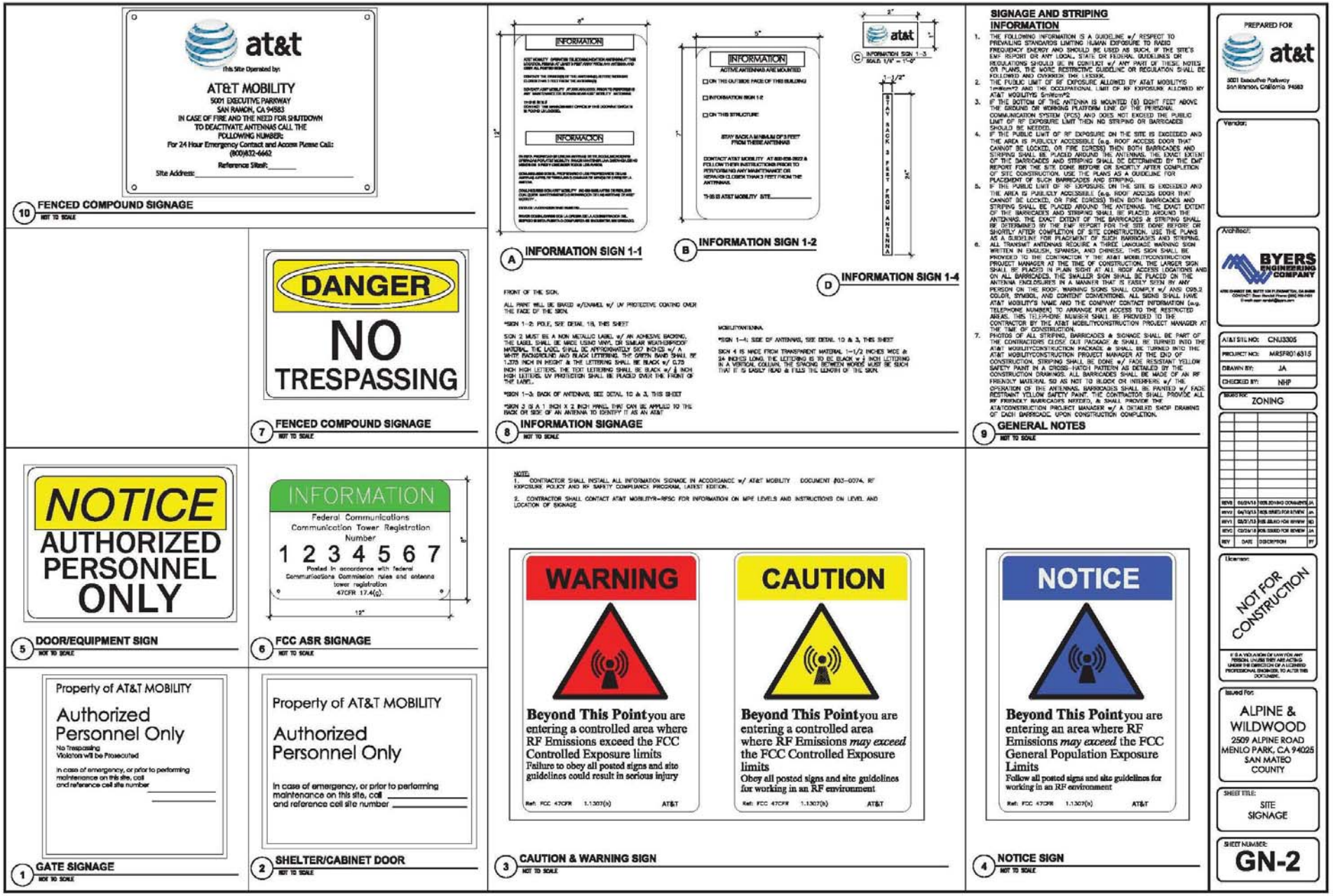
SHEET TITLE:
RF BARRIER/ SIGNAGE / COMPLIANCE

SHEET NUMBER:
EME-1

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **H**

File Numbers: **PLN 1999-00726**



San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T**

Attachment: **H**

File Numbers: **PLN 1999-00726**

Existing

Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from Wildwood Lane looking south at site

AT&T Wireless

CNU3305 Alpine & Wildwood
2509 Alpine Road, Menlo Park, CA
Photosims Produced on 3-15-2015

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **I**

File Numbers: **PLN 1999-00726**

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from Alpine Road looking east at site

AT&T Wireless

CNU3305 Alpine & Wildwood
2509 Alpine Road, Menlo Park, CA
Photosims Produced on 3-15-2015

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **I**

File Numbers: **PLN 1999-00726**

Existing

Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from Alpine Road looking southeast at site

AT&T Wireless

CNU3305 Alpine & Wildwood
2509 Alpine Road, Menlo Park, CA
Photosims Produced on 3-15-2015

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **I**

File Numbers: **PLN 1999-00726**

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

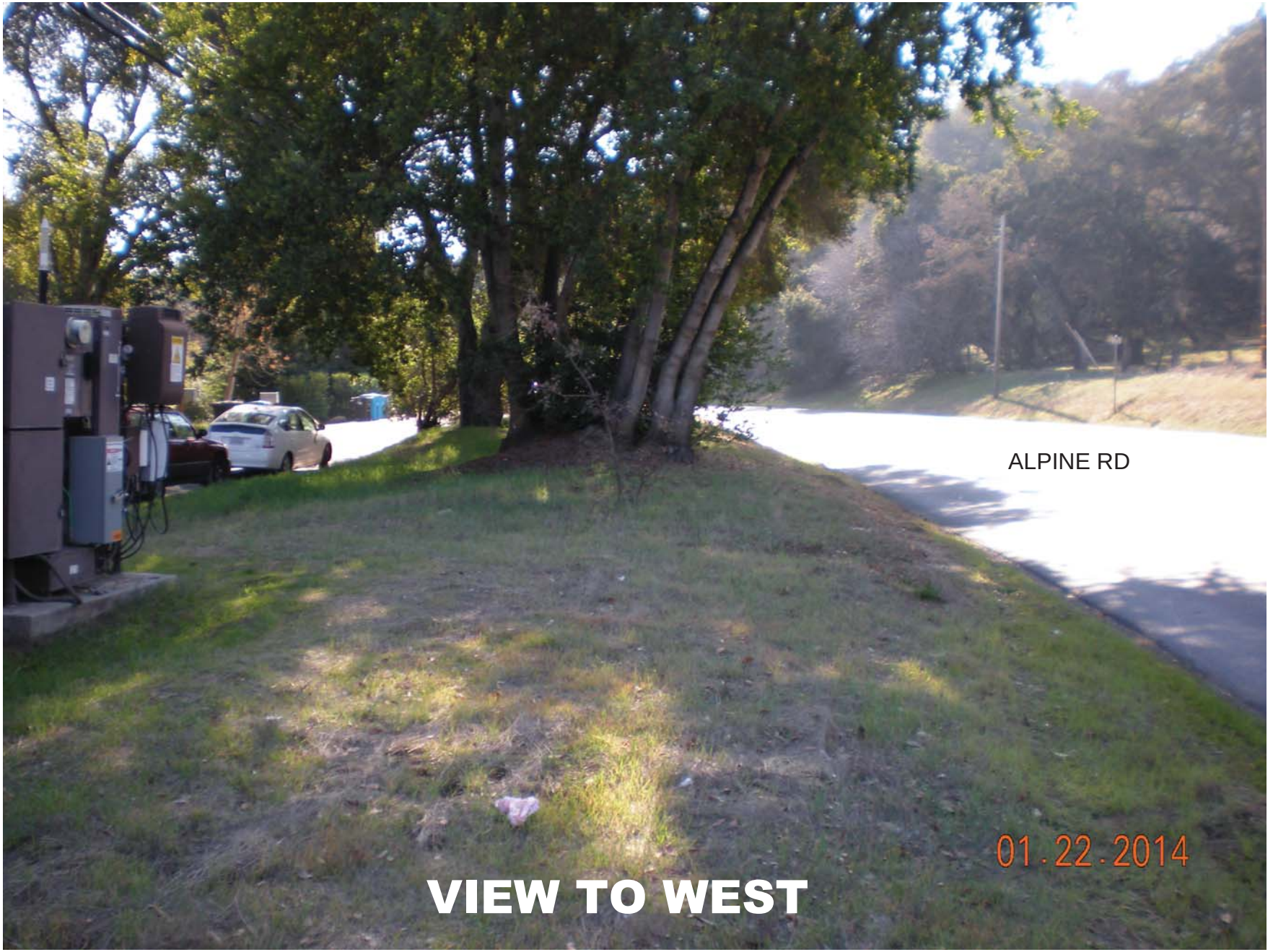
File Numbers: **PLN 1999-00726**

EXISTING EQUIPMENT

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

File Numbers: **PLN 1999-00726**



San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

File Numbers: **PLN 1999-00726**

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

File Numbers: **PLN 1999-00726**

MOCK FENCING

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

File Numbers: **PLN 1999-00726**

VIEW STANDING IN FRONT OF 2 WILDWOOD LN. DRIVEWAY

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

File Numbers: **PLN 1999-00726**

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

File Numbers: **PLN 1999-00726**

VIEW FROM EASTERN ENTRNACE OF WILDWOOD LN. LOOKING WEST

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

File Numbers: **PLN 1999-00726**

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

File Numbers: **PLN 1999-00726**

VIEW FROM WESTERN ENTRANCE OF WILDWOOD LN. LOOKING EAST

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

File Numbers: **PLN 1999-00726**

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

File Numbers: **PLN 1999-00726**

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **J**

File Numbers: **PLN 1999-00726**

2015-04-05 08:35:02

WATERFORD
COMPLIANCE...FROM START TO SIGNAL

Theoretical Radio Frequency Emissions Compliance Report For Caldwell Consulting, Inc. on behalf of AT&T Mobility

Site Name:	Alpine-Wildwood	**Site Structure Type:**	Utility Pole
Site ID#	10095898	**Latitude:**	N37-25-4.20
Address:	2509 Alpine Road Menlo Park, CA 94025	**Longitude:** **County:**	W122-11-28.20 San Mateo

Building Photo

Report Information

Report Writer:	Chase Warren	**Report Date:**	March 31, 2015

Compliance Statement

Site Compliance Statement: Based on the information collected, this site **Will Be Compliant** with FCC Rules and Regulations upon implementation of the recommendations set forth in Section 8 of this report.

San Mateo County Zoning Hearing Officer Meeting

Owner/Applicant: **COUNTY OF SAN MATEO/AT&T** Attachment: **K**

File Numbers: **PLN 1999-00726**

Table of Contents

1 General Summary

Site Summary

Caldwell Consulting, Inc. has contracted Waterford Consultants, LLC to conduct a Radio Frequency Electromagnetic Compliance assessment of the Alpine-Wildwood site located at 2509 Alpine Road, Menlo Park, CA 94025. The compliance framework is derived from the FCC Rules and Regulations for preventing human exposure in excess of the applicable MPE (Maximum Permissible Exposure) limits. An overview of the applicable FCC Rules and analysis guidelines is presented in Appendix A.

The subsequent sections contain information regarding the radio telecommunications equipment installed at this site and the surrounding environment with regard to RF Hazard compliance. This report represents worst-case predictive modeling based on the information provided by the client. Recommendations to meet or maintain compliance are provided in Section 8 of this report.

Waterford Consultants, LLC recommends that this report be shared with site management so they are aware of transmitting antennas on site and can restrict access to authorized personnel.

Here is a listing of the files used for this report:

- GSM Carrier Count.xlsx
- 10095898_AE01_02262015_100%_CDS_REV1_CCL03305_LTE2C (1).pdf
- SAN-FRANCISCO-SACRAMENTO_SAN-FRANCISCO_CNU3305_2014-LTE-Next-Carrier_LTE-2C_sp656b_3701569739_10095898_13322_03-20-2014_Planned-Approved_v4.00 (1).pdf

2 Antenna Inventory

Ant #	Operator	Antenna Make	Antenna Model	Type	Frequency (MHz)	Az	Downtilt	Horizontal Beam width	Ant (ft)	Antenna Gain (dBd)	Total ERP (watts)	TX Power (Watts)	X (ft)	Y (ft)	Antenna Centerline Main Level (ft)	Bottom of Antenna Main Level (ft)
1	AT&T Mobility	KATHREIN	742226V01 00DT	Panel	850	160	0	70	1.9	9.17	330	40	80	54	38	36
1	AT&T Mobility	KATHREIN	742226V01 00DT	Panel	1900	160	0	60	1.9	11.18	525	40	80	54	38	36
2	AT&T Mobility	KATHREIN	742226V01 00DT	Panel	850	160	0	70	1.9	9.17	41	5	80	54	36	34
3	AT&T Mobility	KATHREIN	742226V01 00DT	Panel	850	340	0	70	1.9	9.17	330	40	80	47	38	36
3	AT&T Mobility	KATHREIN	742226V01 00DT	Panel	1900	340	0	60	1.9	11.18	525	40	80	47	38	36
4	AT&T Mobility	KATHREIN	742226V01 00DT	Panel	850	340	0	70	1.9	9.17	41	5	80	48	36	34
5	AT&T Mobility	ANDREW	SBNHH-1D65A 00DT	Panel	700	160	0	66	4.6	11.28	806	60	62	124	37	35
5	AT&T Mobility	ANDREW	SBNHH-1D65A 00DT	Panel	1900	160	0	65	4.6	14.64	3488	120	62	124	37	35
6	AT&T Mobility	ANDREW	SBNHH-1D65A 00DT	Panel	700	340	0	66	4.6	11.28	806	60	61	130	37	35
6	AT&T Mobility	ANDREW	SBNHH-1D65A 00DT	Panel	1900	340	0	65	4.6	14.64	3488	120	61	130	37	35

Note: Waterford Consultants has assumed transmission parameters for Unknown RF emitters based on similar installations found at other radio communications sites. Generic antenna models have been used where existing antenna part numbers or radiation patterns are not available. The frequencies presented in this table may have been assumed in order to represent the approximate band of operation and to support a worst-case calculation of power density.

3 Predicted Emission Levels

The following plots show the spatial average predicted power density levels in the reference plane indicated as a percentage of the General Public Limit. Please note that 100% of the General Public Limits corresponds to 20% of the Occupational Limit.

The reference plane for the plot is the site level, as indicated in the caption. For example, "Avg 10 to 16 Feet" refers to the spatial average predicted power density level between 10 and 16 feet above the site level. Plots are produced for each accessible level. Levels that are not accessible will not be shown. Only accessible areas in a plot are relevant. Areas not accessible or in free space, off the edge of a site or equipment penthouse, do not affect compliance.

3.1 Prediction Summary

Power density decreases significantly with distance from any antenna. The panel-type antennas to be employed at this site are highly directional by design and the orientation in azimuth and mounting elevation, as documented, serve to reduce the potential to exceed MPE limits at any location other than directly in front of the antennas. For the accessible areas in the vicinity of these antennas, the following assessments are provided:

Ground Level

Cumulative MPE Assessment
- Below General Population limits

AT&T Mobility Contribution
- Contribution does not exceed 5% of General Population limit

25' Residence Level

Cumulative MPE Assessment
- Below General Population limits

AT&T Mobility Contribution
- Contribution does not exceed 5% of General Population limit

21' Utility Line Level

Cumulative MPE Assessment
- Below General Population limits

AT&T Mobility Contribution
- Contribution exceeds 5% of General Population limit

50' Utility Line Level

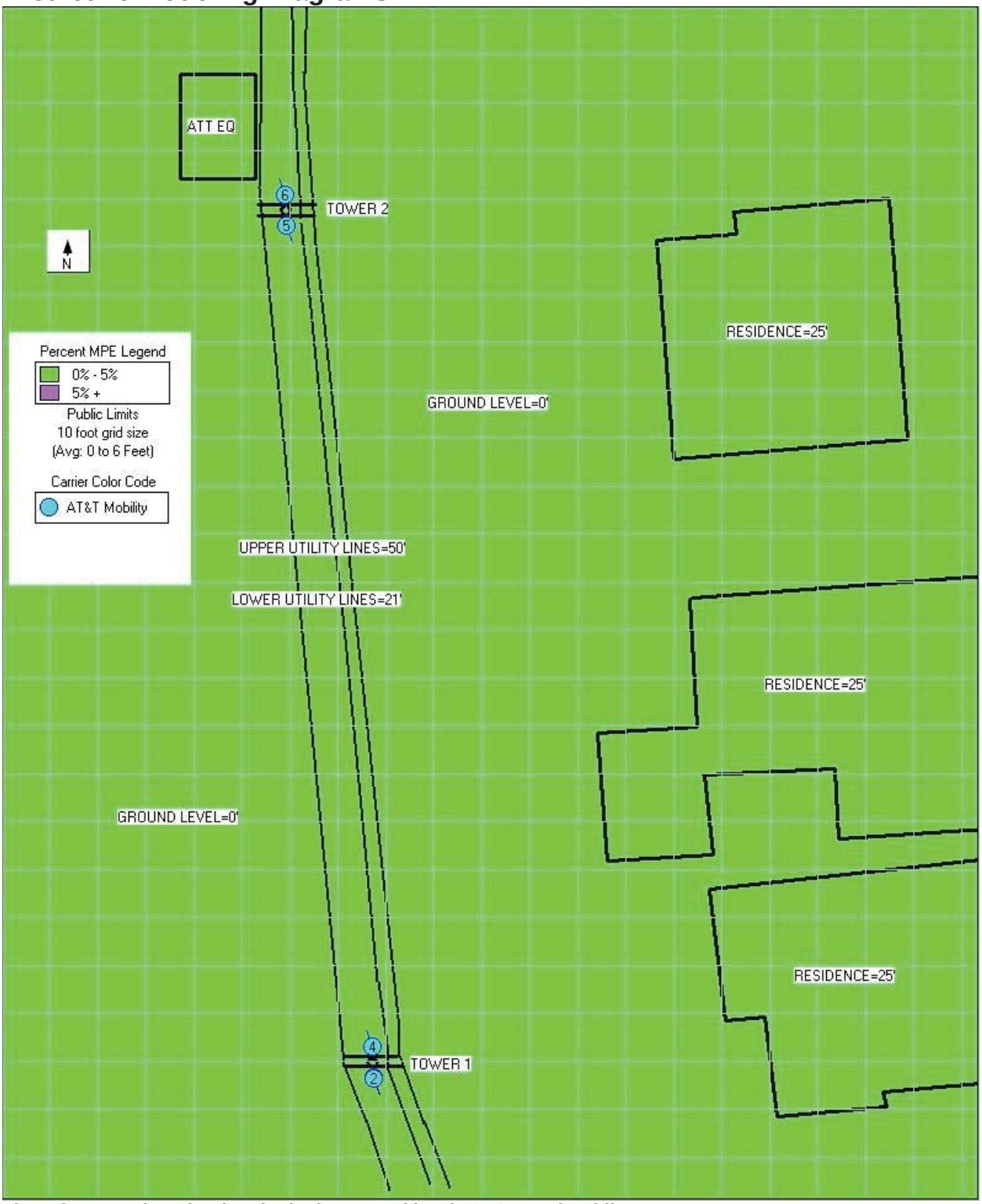
Cumulative MPE Assessment

- Below General Population limits

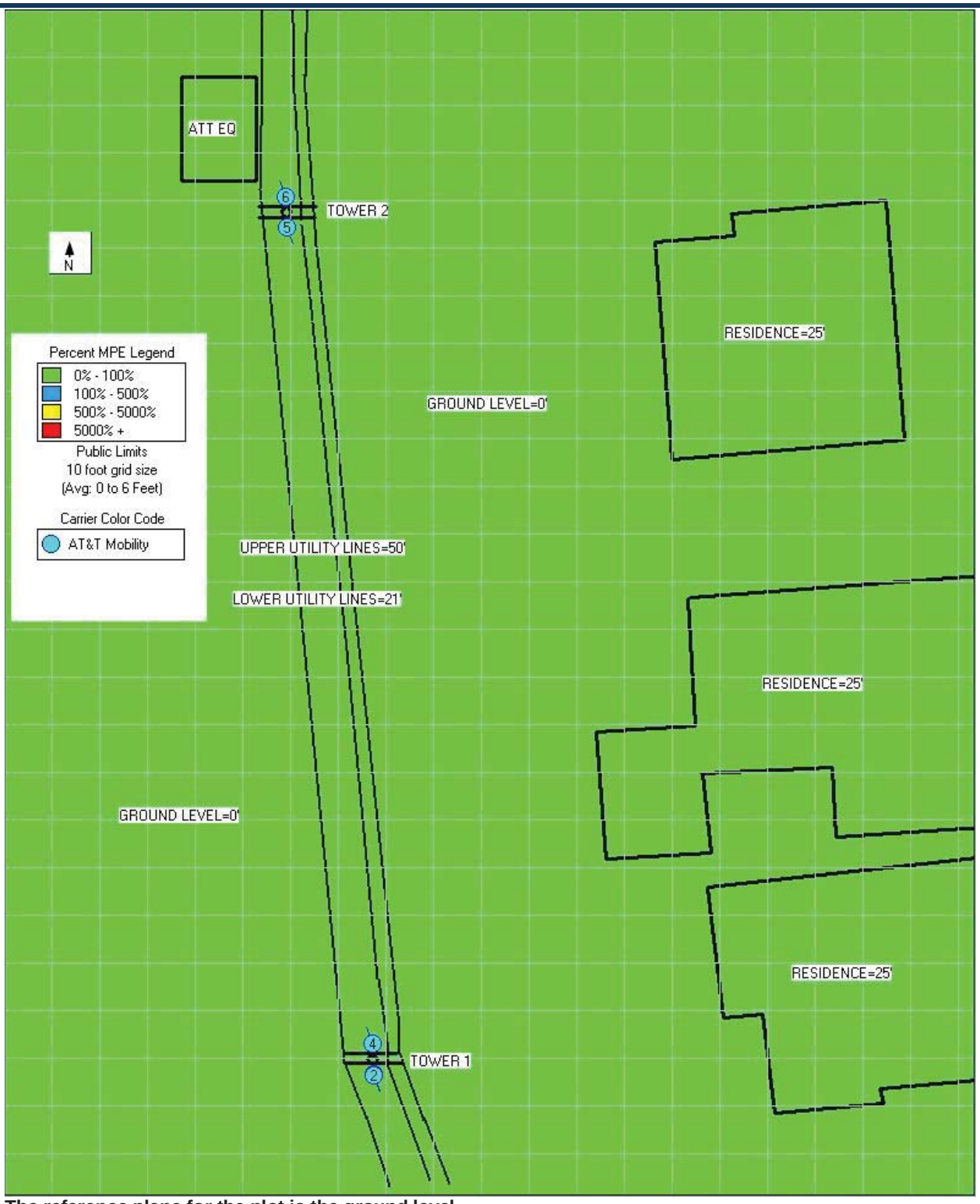
AT&T Mobility Contribution

- Contribution exceeds 5% of General Population limit

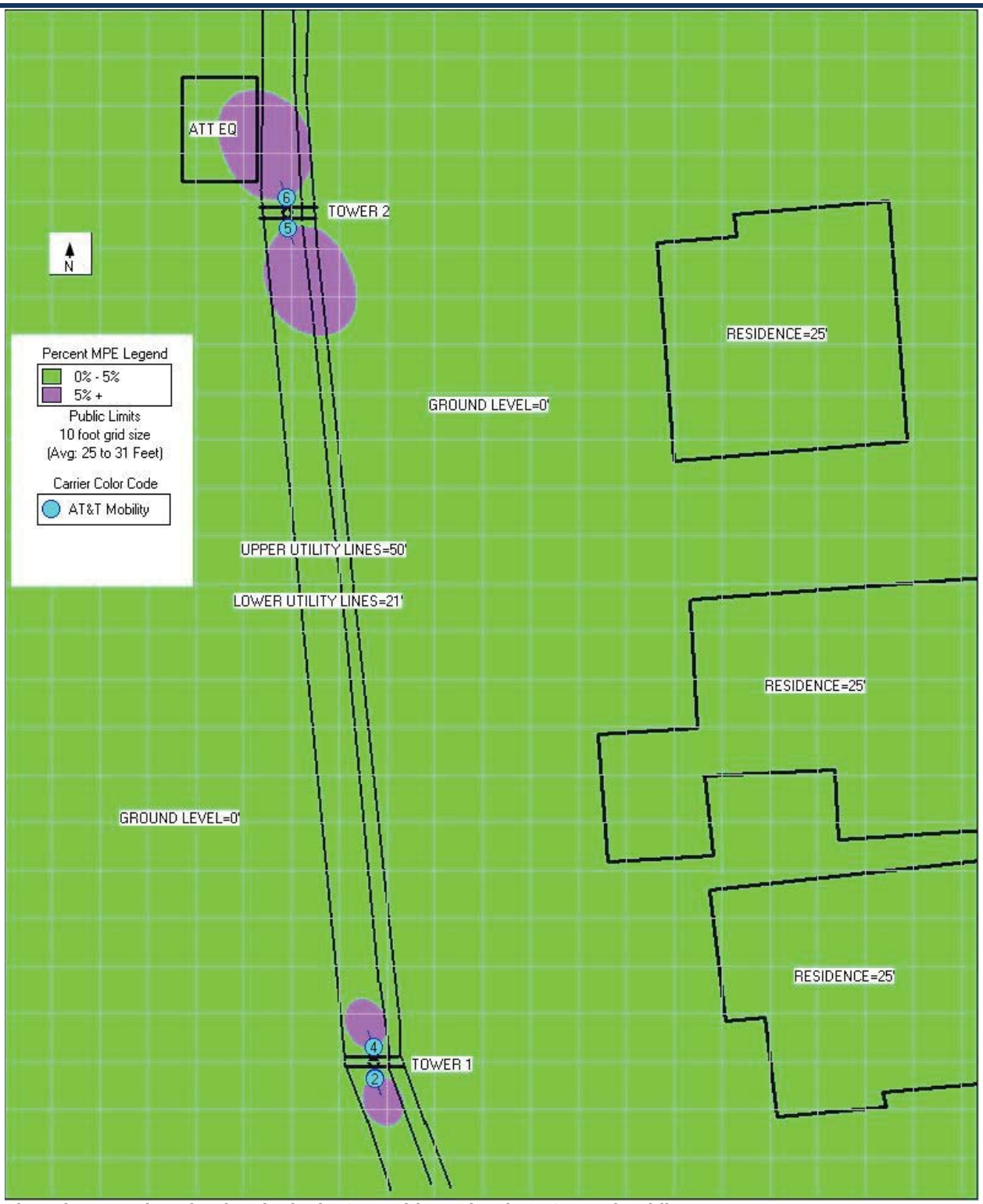
Predictive Modeling Diagrams



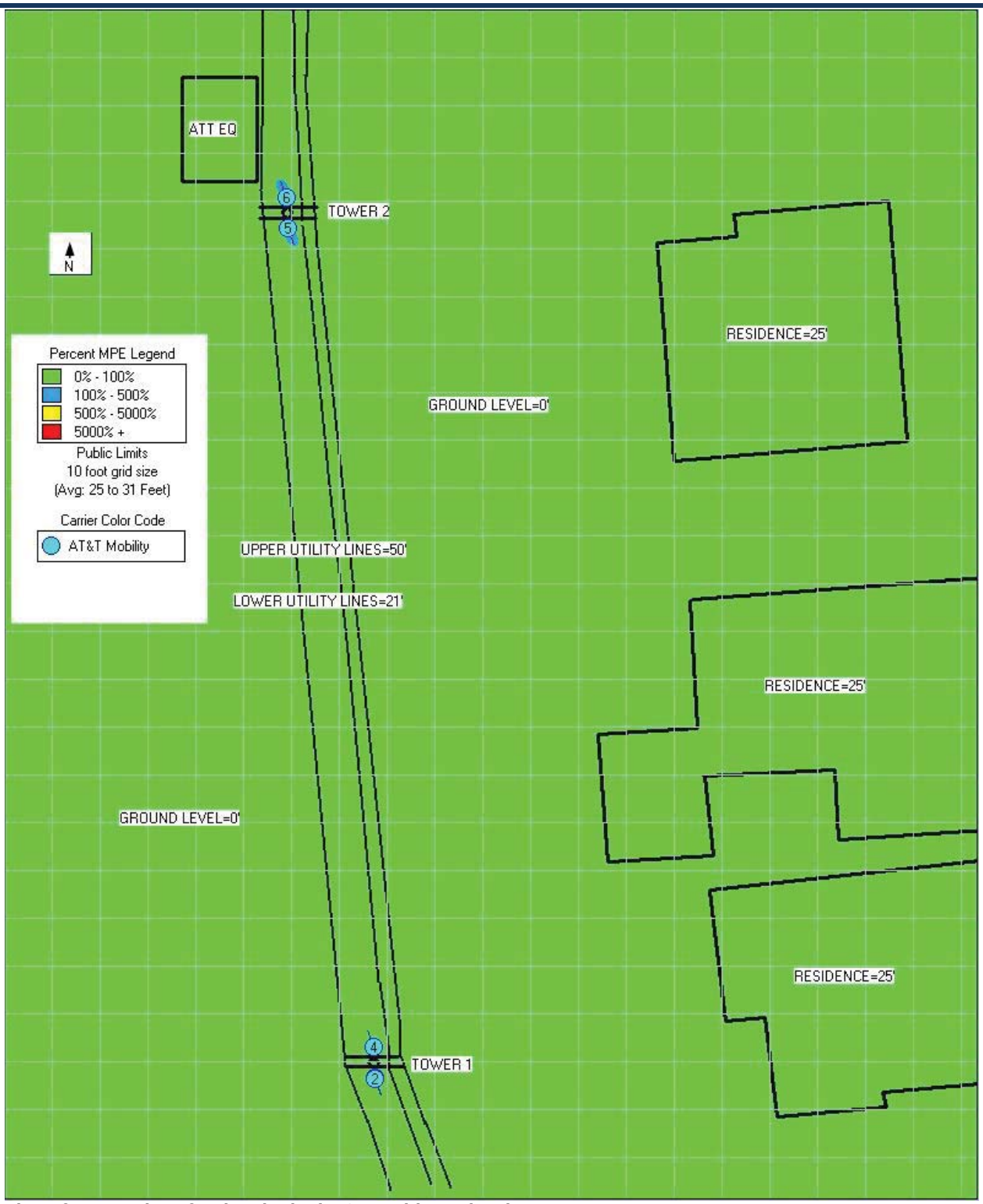
The reference plane for the plot is the ground level-5% General Public.



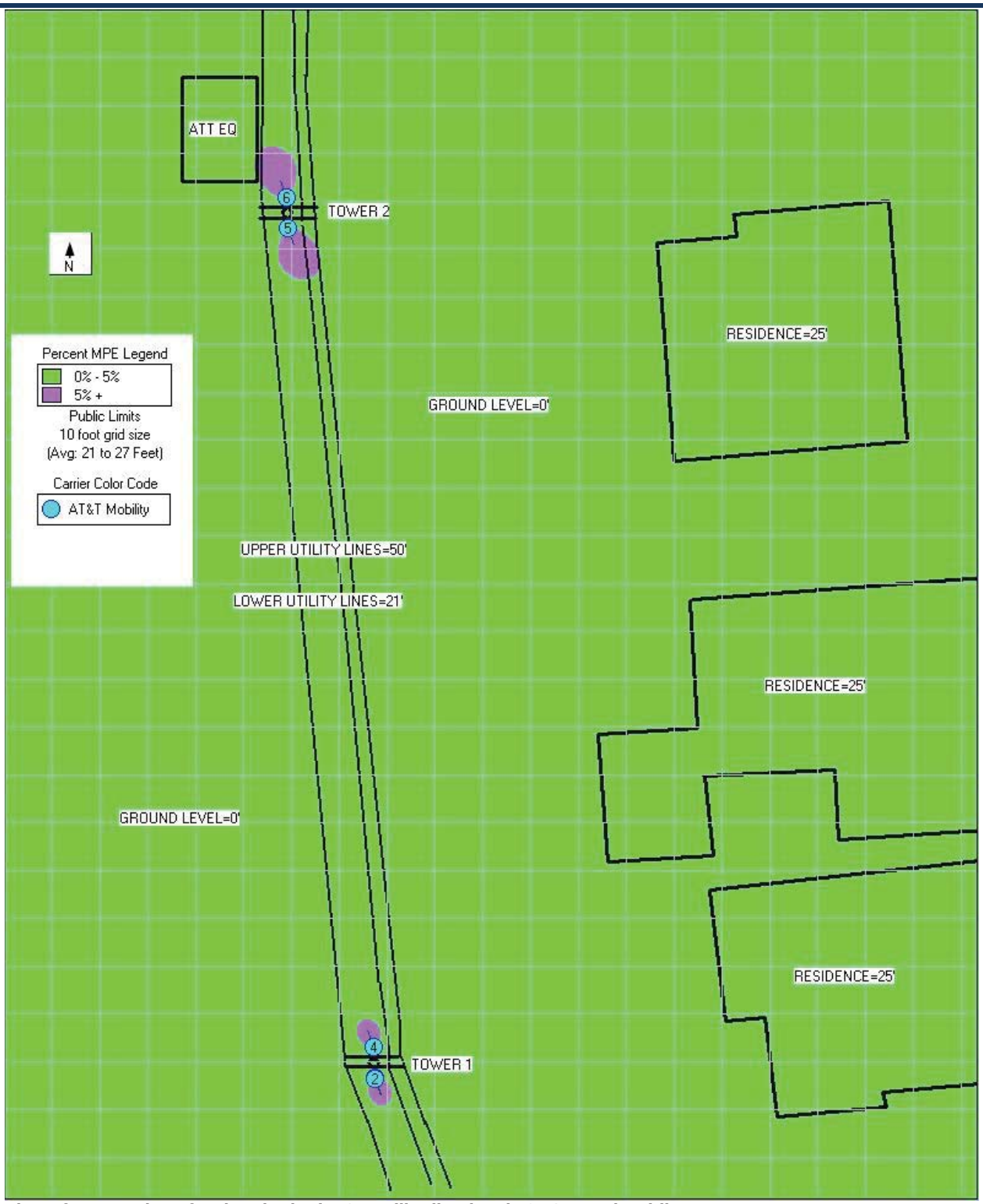
The reference plane for the plot is the ground level.



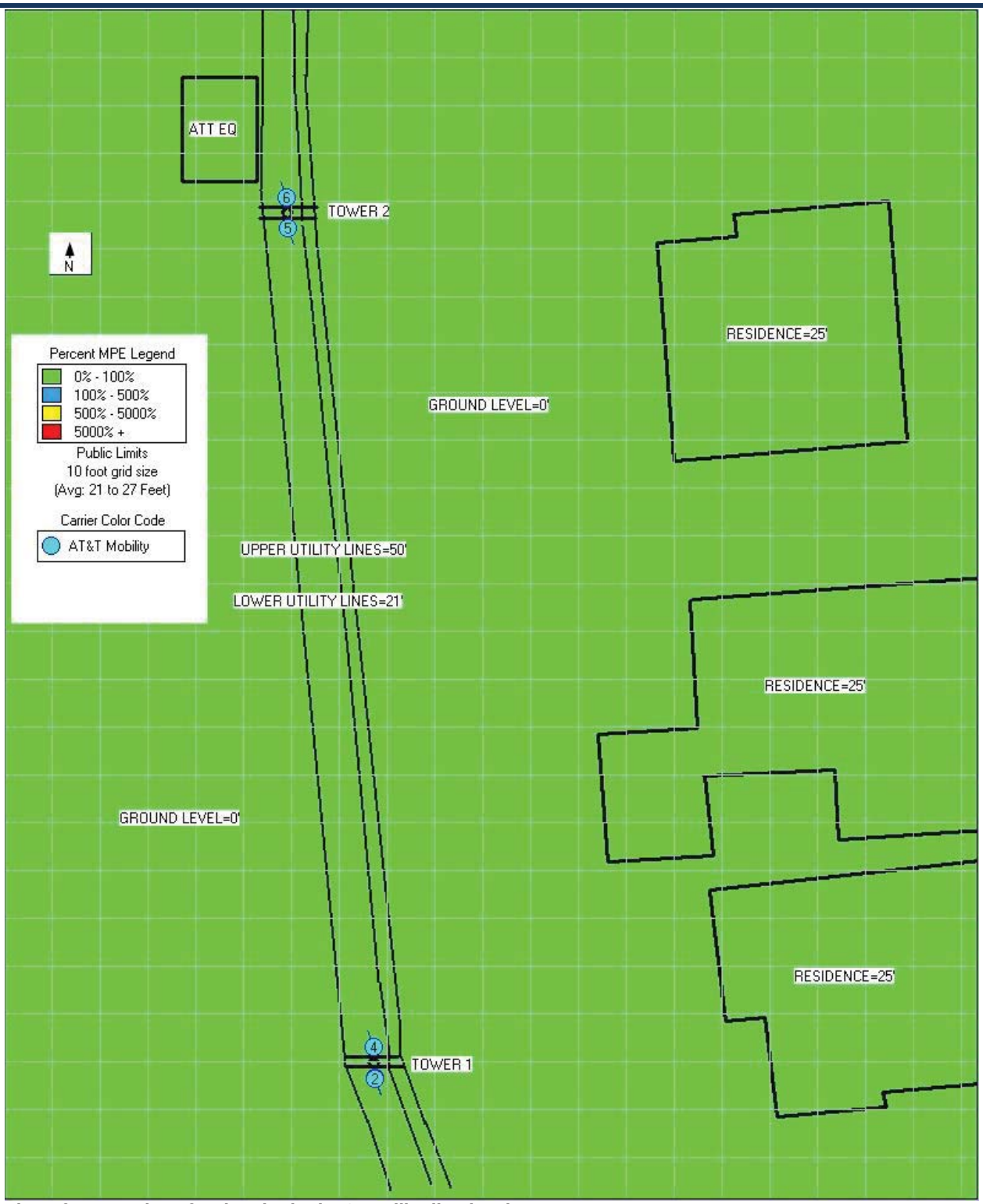
The reference plane for the plot is the 25' residence level-5% General Public.



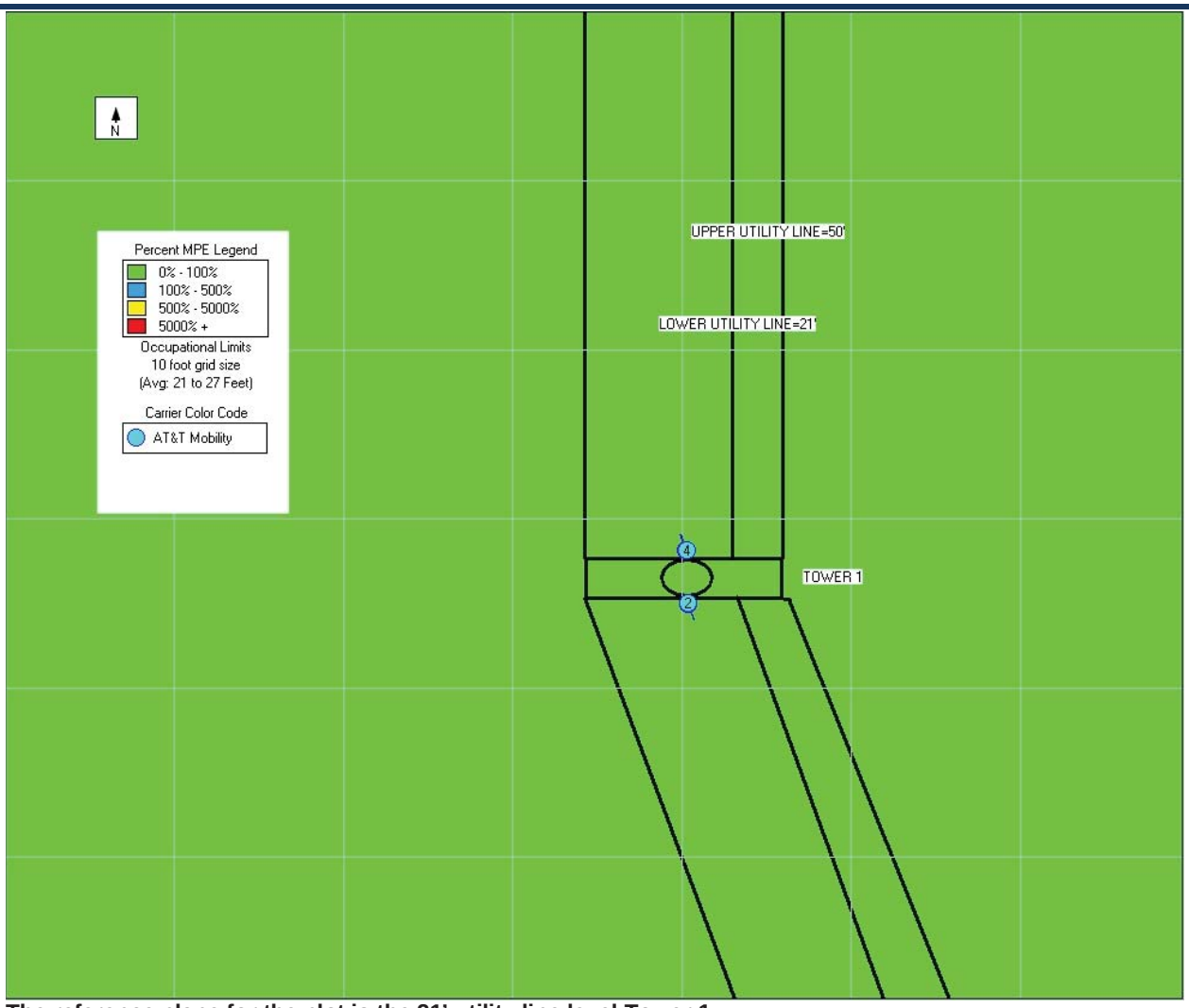
The reference plane for the plot is the 25' residence level.



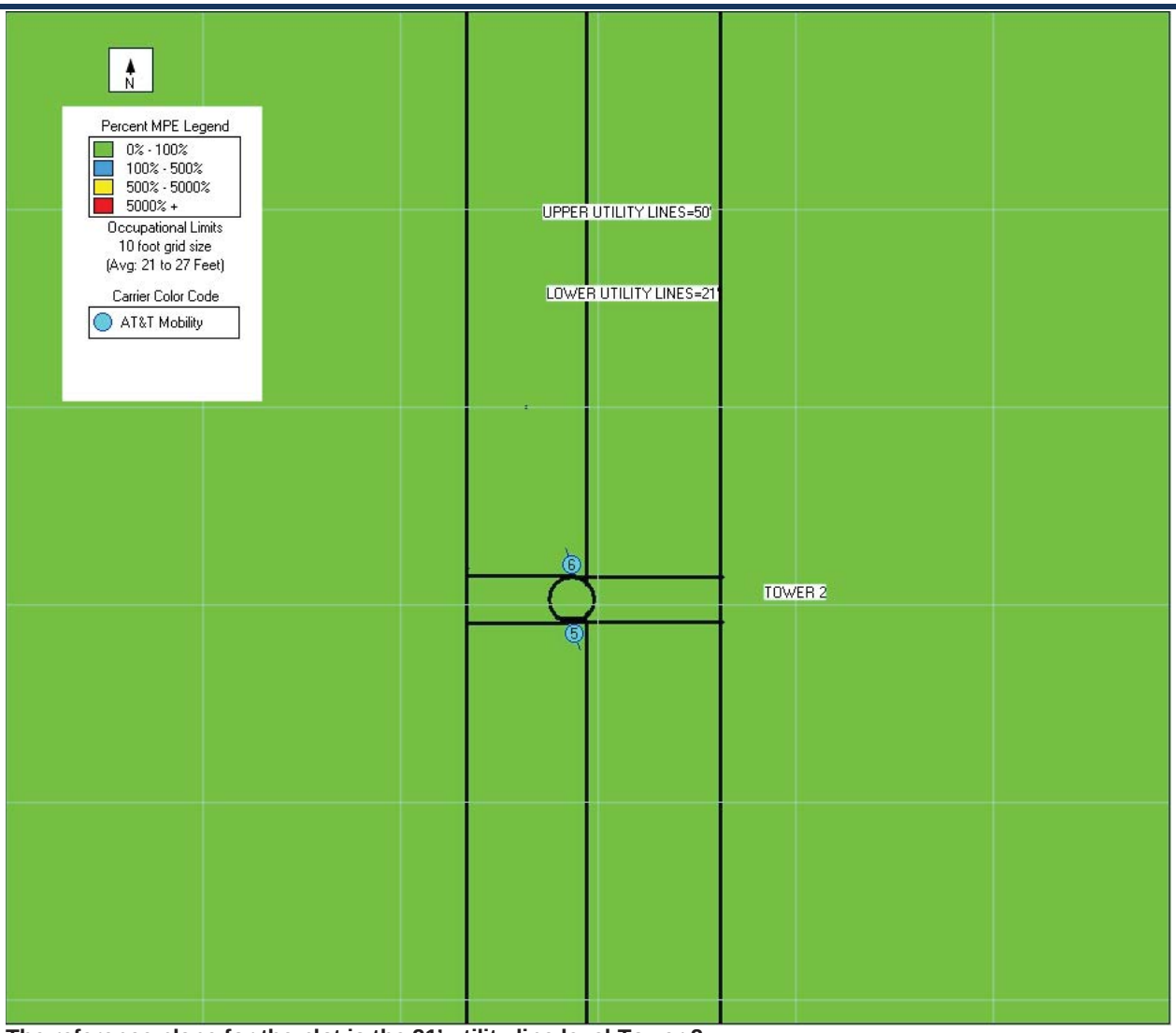
The reference plane for the plot is the 21' utility line level-5% General Public.



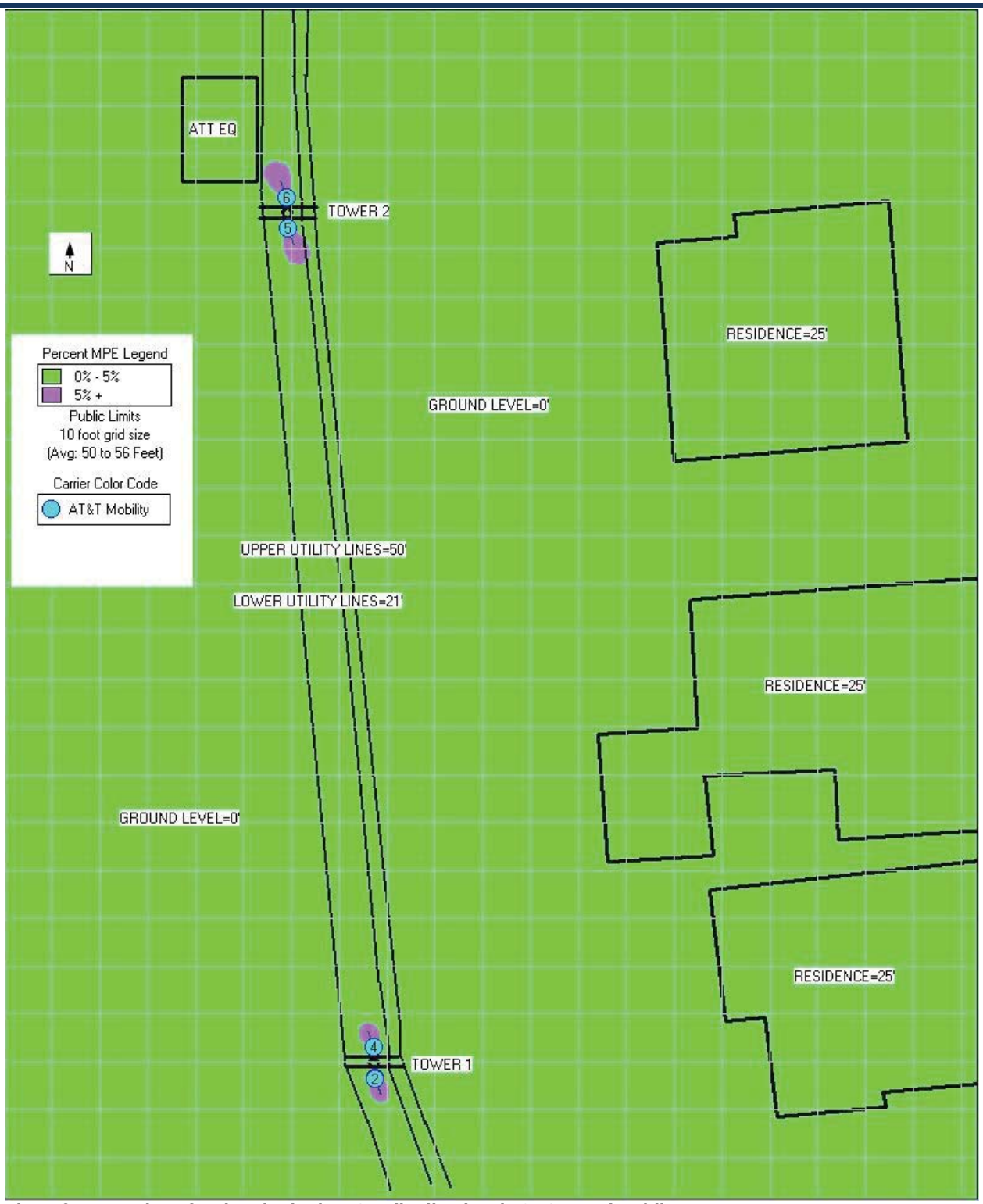
The reference plane for the plot is the 21' utility line level.



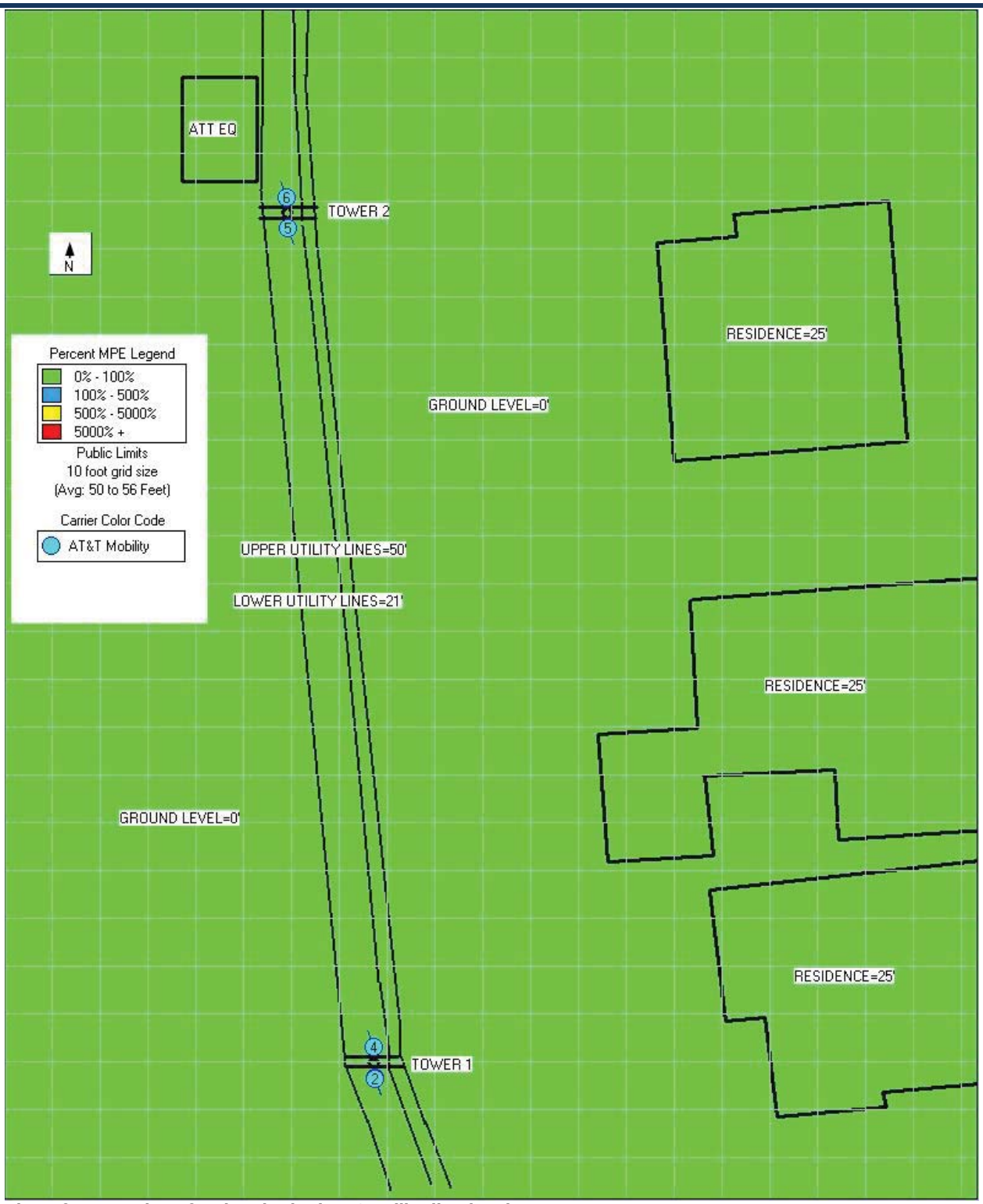
The reference plane for the plot is the 21' utility line level-Tower 1



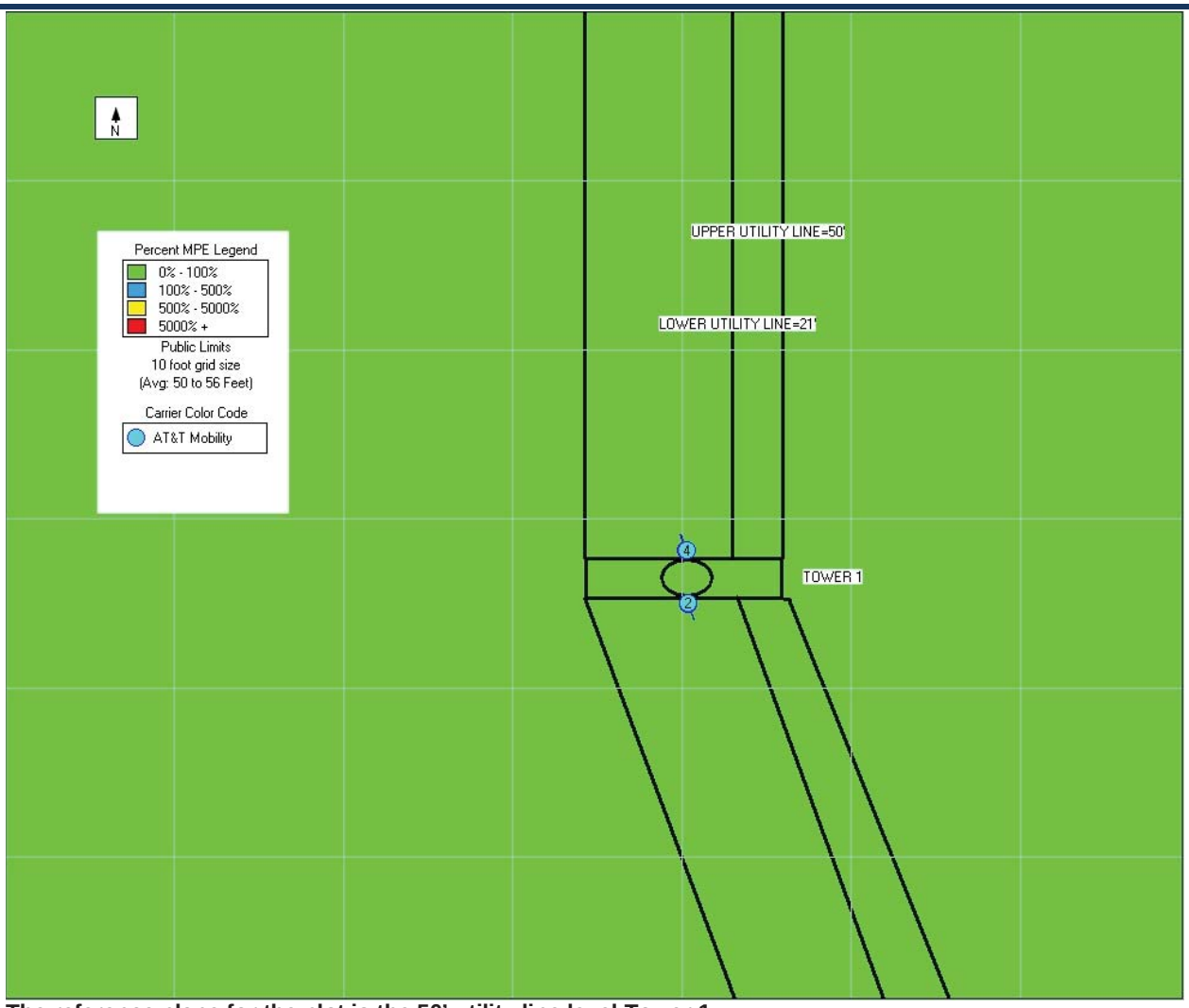
The reference plane for the plot is the 21' utility line level-Tower 2



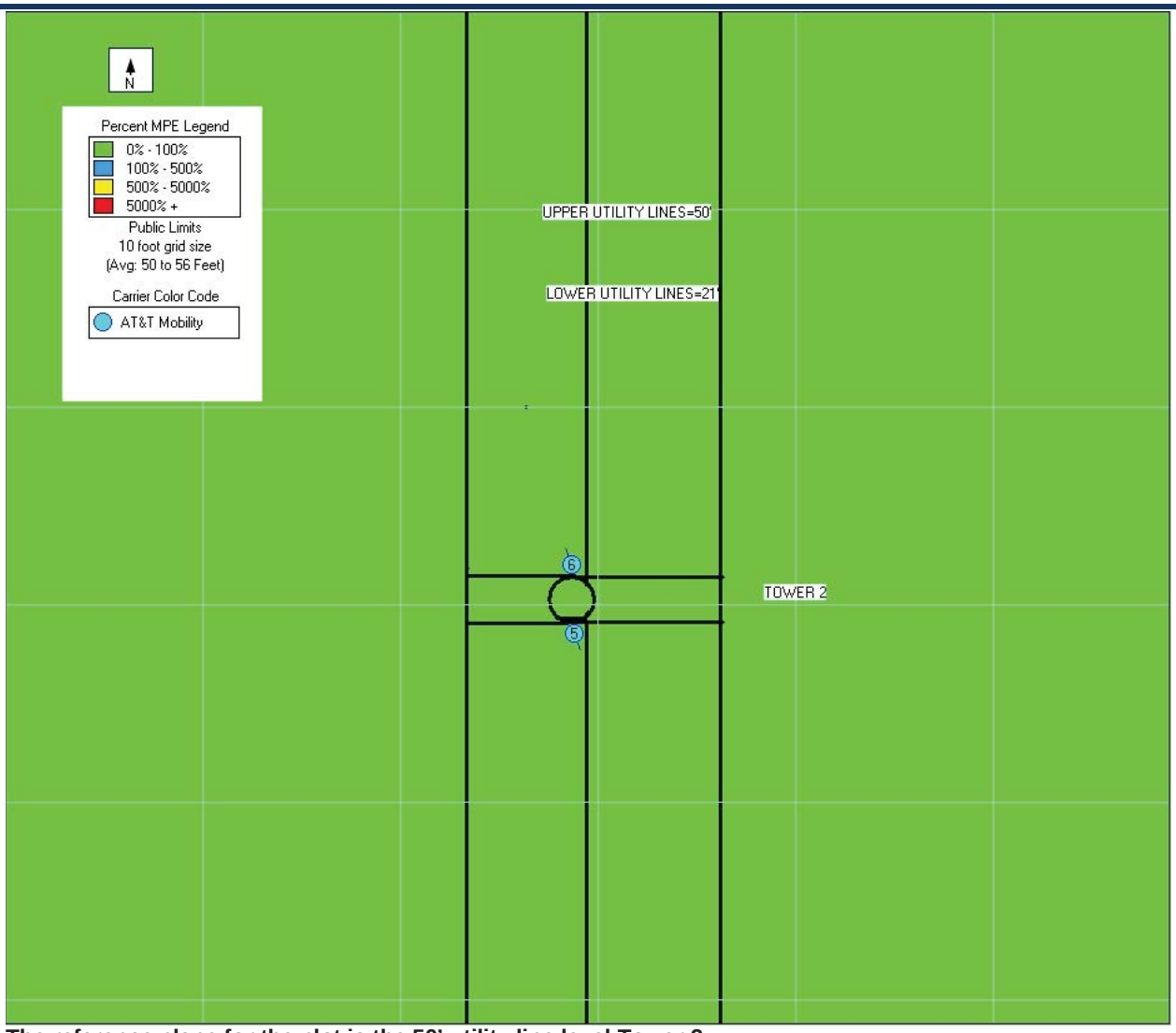
The reference plane for the plot is the 50' utlity line level-5% General Public.



The reference plane for the plot is the 50' utility line level.



The reference plane for the plot is the 50' utility line level-Tower 1



The reference plane for the plot is the 50' utility line level-Tower 2

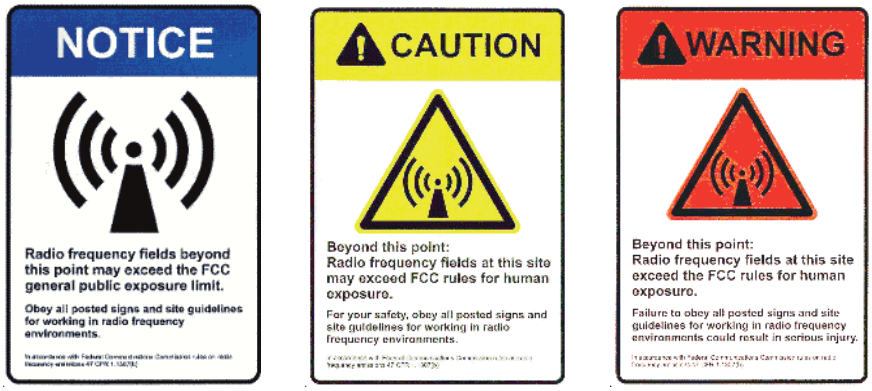
4 Appendix A: Technical Framework

The FCC requires licensees to assure that persons are not exposed to radiofrequency electromagnetic energy power densities in excess of the applicable MPE (Maximum Permissible Exposure) limit. These rules apply to both Occupational Personnel and the General Population. Applicable FCC rules are found at 47 C.F.R. § § 1.1307(b)(3) and 1.1310. The FCC rules define two tiers of permissible exposure differentiated by the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure.

> **General Population / uncontrolled** exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment-related, or where persons cannot exercise control over their exposure.
>
> **Occupational / controlled** exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure.

Maximum Permissible Exposure ("MPE") is defined in OET 65 as being 100% of the exposure limit for the situation or tier of permissible exposure. For any area in excess of 100% General Population MPE, access controls with appropriate RF alerting signage must be put in place and maintained to restrict access to authorized personnel. Subject to other site security requirements, Occupational Personnel trained in RF safety and equipped with personal protective equipment designed for safe work in the vicinity of RF may be granted access. Controls such as physical barriers to entry imposed by locked doors, locked passageways, or other access control mechanisms may be supplemented by alarms that alert the individual and notify site management of a breach in access control. Controls may include administrative policies and procedures requiring personal protective equipment (e.g. RF personal monitor), proof of RF training to obtain site access cards, presentation of appropriate RF awareness training certifications to security personnel or other measures designed to prevent uncontrolled access.

RF alerting signs are not necessarily required, and by FCC guidelines, alone do not constitute compliance, posting of the appropriate **NOTICE**, **CAUTION,** or **WARNING** signs at areas of concern is considered good practice. The signs below are examples of signs meeting FCC guidelines.



Power density decreases significantly over a short distance from any antenna. Specifically with respect to directional panel antennas, the design, oriented in azimuth and elevation as documented, reasonably precludes potential to exceed MPE limits at any location other than directly in front of the antenna. Areas in front of the antenna that are restricted by barriers, would require climbing or are otherwise beyond the reach of a standing individual of average height are not considered accessible. Analysis or measurement of instantaneous energy levels is performed for use as proof of compliance with FCC rules and regulations applicable to non-occupational persons, those individuals who are not authorized to access portions of the antenna support structure above ground level. To assess time-average exposure for occupational personnel working within secured areas of the site, on the supporting structure, or in the immediate proximity of the antenna equipment is a separate study requiring detailed ergonomic information.

FCC regulations regarding Radiofrequency radiation exposure, expressed in 47 CFR § 1.1310 are further clarified with respect to the value of 5% of exposure limits for the subject transmitters in the following section of 47 CFR § 1.1307 (b):

> *(3) In general, when the guidelines specified in § 1.1310 are exceeded in an accessible area due to the emissions from multiple fixed transmitters, actions necessary to bring the area into compliance are the shared responsibility of all licensees whose transmitters produce, at the area in question, power density levels that exceed 5% of the power density exposure limit applicable to their particular transmitter or field strength levels that, when squared, exceed 5% of the square of the electric or magnetic field strength limit applicable to their particular transmitter. Owners of transmitter sites are expected to allow applicants and licensees to take reasonable steps to comply with the requirements contained In § 1.1307(b) and, where feasible, should encourage co-location of transmitters and common solutions for controlling access to areas where the RF exposure limits contained in § 1.1310 might be exceeded.*

Following these FCC requirements, predictive modeling has been performed to evaluate power density resulting from client transmitters as a percentage of the power density MPE limit applicable to their transmitters. These results are presented in Section 8.

The site should be routinely inspected and this or a similar report updated with any changes to the RF environment including:

- Adding new antennas
- Removing of any existing antennas
- Change in the radiating power or number of RF emitters

Waterford Consultants recommends coordinating with all wireless tenants before performing services in front of or near any transmitting antennas.

5 Appendix B: Qualifications of Waterford Consultants, LLC

With more than 100 team-years of experience, Waterford Consultants, LLC [Waterford] provides technical consulting services to clients in the Radio Communications and antenna locating industry. Waterford retains professional engineers who are placed in responsible charge of the processes for analysis.

Waterford is familiar with 47 C.F.R. § § 1.1307(b)(3) and 1.1310 along with the general Rules, Regulations and policies of the FCC. Waterford work processes incorporate all specifications of FCC Office of Engineering and Technology, Bulletin 65 ("OET65"), from the website: www.fcc.gov/oet/rfsafety and follow criteria detailed in 47 CFR § 1.1310 "Radiofrequency radiation exposure Limits".

Within the technical and regulatory framework detailed above, Waterford developed tools according to recognized and generally accepted good engineering practices. Permissible exposure limits are band specific, and the Waterford computerized modeling tools correctly calculate permissible exposure based on the band(s) specified in the input data. Only clients and client representatives are authorized to provide input data through the Waterford web portal. In securing that authorization, clients and client representatives attest to the accuracy of all input data.

Waterford Consultants, LLC attests to the accuracy of the engineering calculations computed by those modeling tools. Furthermore, Waterford attests that the results of those engineering calculations are correctly summarized in this report.

6 Appendix C: RoofMaster™

RoofMaster™ is the software package that Waterford Consultants created to model RF environments associated with multiple emitters where the potential exists for human exposure. Based on the computational guidelines set forth in OET Bulletin 65 from the Federal Communications Commission (FCC), RoofMaster™ considers the operating parameters of specified RF sources to predict the overall Maximum Permissible Exposure possible at a given location. These theoretical results represent worst-case predictions as emitters are assumed to be operating at 100% duty cycle.

From the FCC document:

> *"The revised OET Bulletin 65 has been prepared to provide assistance in determining whether proposed or existing transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) fields adopted by the Federal Communications Commission (FCC). The bulletin offers guidelines and suggestions for evaluating compliance."*

http://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf

7 Appendix D: Statement of Limiting Conditions

Waterford Consultants, LLC has been supplied data pertaining to RF environment for this site. Waterford Consultants will not be responsible for matters of a legal nature that affect the site or property. The property has been analyzed under the premise that it is under responsible ownership and management and our client has the legal right to conduct business at this facility.

Due to the complexity of some wireless sites, Waterford Consultants has created this report utilizing best industry practices and due diligence. Waterford Consultants cannot be held accountable or responsible for anomalies or discrepancies due to actual site conditions (i.e., mislabeling of antennas or equipment, inaccessible cable runs, inaccessible antennas or equipment, etc.) or information or data supplied by Wireless Carrier, the site manager**,** or their affiliates, subcontractors or assigns.

Waterford Consultants has provided the results of a computer generated model in this MPE Site Compliance Report to show approximate dimensions of the site, and the model results is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Waterford Consultants' recommendations.

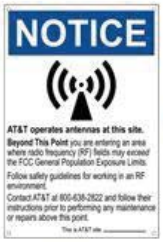
Waterford Consultants will not be responsible for any existing conditions or for any engineering or testing that might be required to discover whether adverse safety conditions exist. Because Waterford Consultants is not an expert in the field of mechanical engineering or building maintenance, this MPE Site Compliance Report must not be considered a structural or physical engineering report.

Waterford Consultants obtained information used in this MPE Site Compliance Report from sources that Waterford Consultants considers reliable and believes them to be true and correct. Waterford Consultants does not assume any responsibility for the accuracy of such items that were furnished by other parties.

8 Compliance Requirements Diagram- Tower 1

Info 1

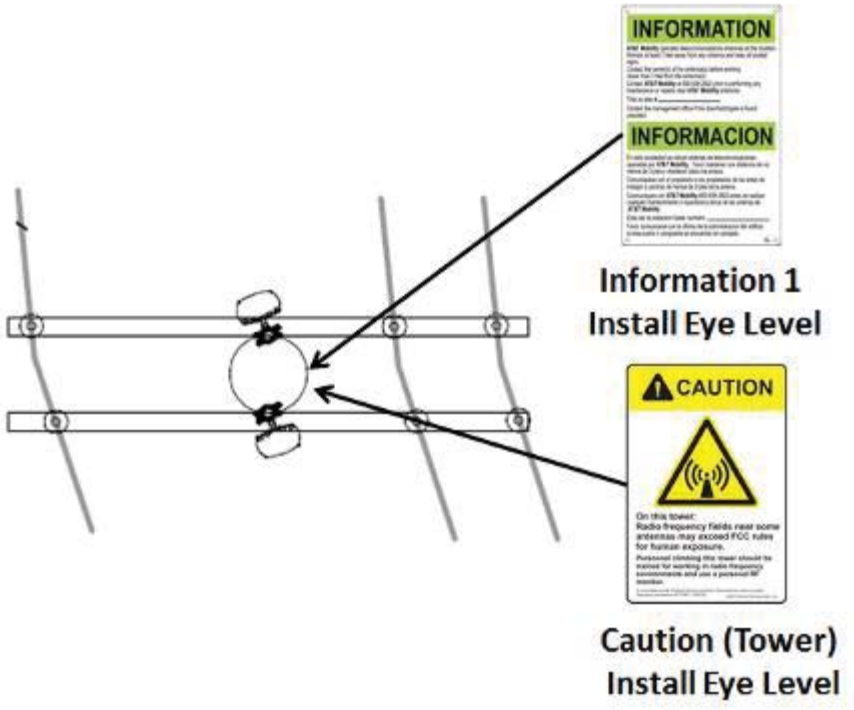
Info 2



Notice 2

Caution 2

Caution (Tower)



Information 1
Install Eye Level

Caution (Tower)
Install Eye Level

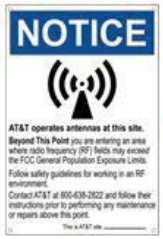
Recommendations

Tower Base Location - Caution (Tower) sign and Information 1 sign posted at the base of the tower

9 Compliance Requirements Diagram-Tower 2

Info 1

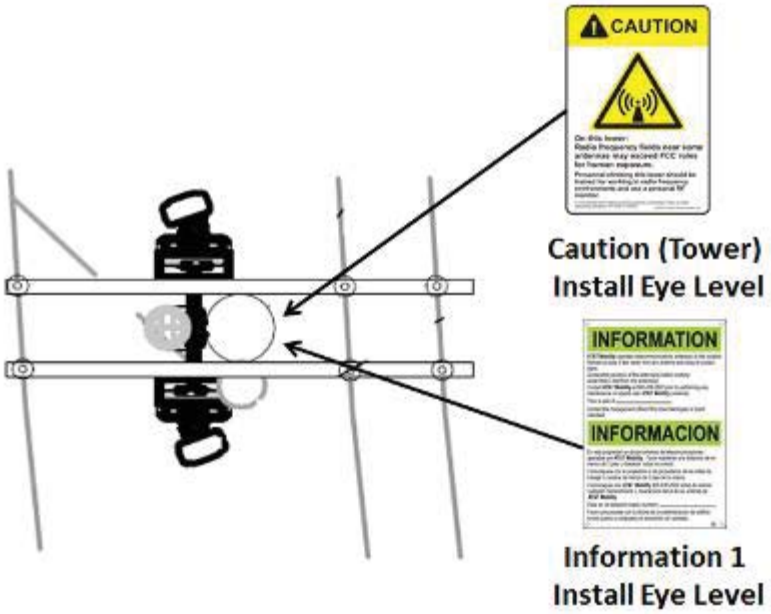
Info 2



Notice 2

Caution 2

Caution (Tower)



Recommendations

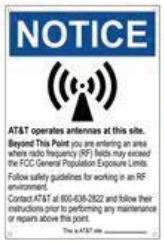
Tower Base Location - Caution (Tower) sign and Information 1 sign posted at the base of the tower

Site Name: Alpine-Wildwood
Site ID: 10095898

10 Compliance Requirements Diagram- Equipment

Info 1

Info 2

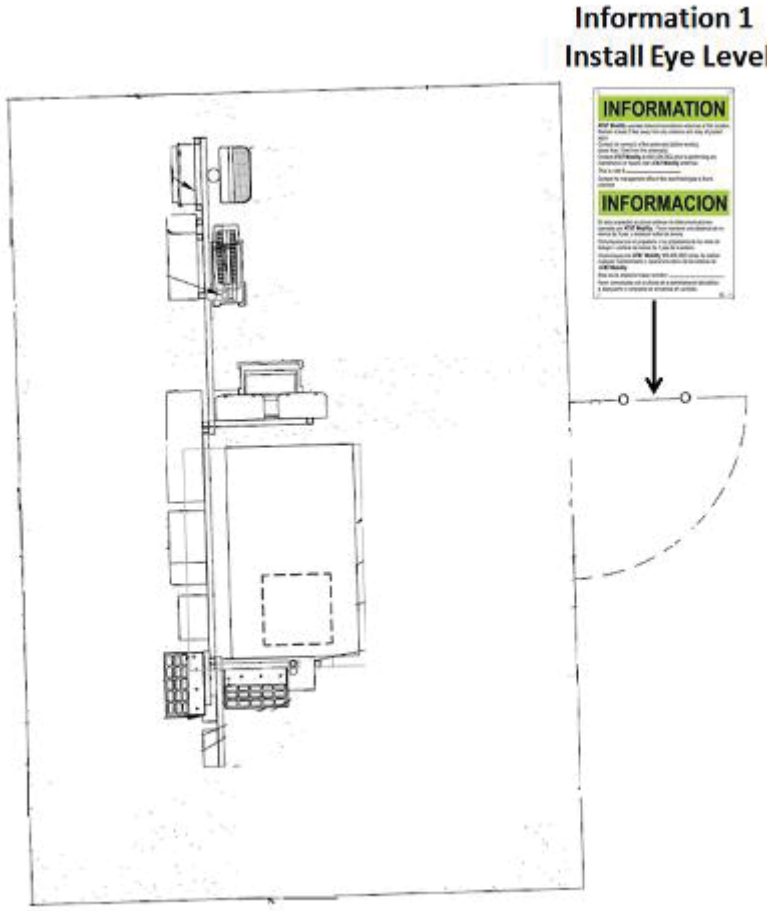


Notice 2

Caution 2

Caution (Tower)

Information 1
Install Eye Level



Recommendations

Equipment Gate Location - Information 1 sign posted at gate

Planning & Building Department
Zoning Hearing Officer

Lisa Grote

County Office Building
455 County Center
Redwood City, California 94063
650/363-1825

December 4, 2014

AT&T Mobility
410 Clubhouse Drive
Aptos, CA 95003

Dear AT&T Mobility:

Subject: **LETTER OF CONTINUANCE**
File Number: PLN1999-00726
Location: Alpine Road and Wildwood Lane, Weekend Acres
APN: Public right-of-way

On December 4, 2014, the San Mateo County Zoning Hearing Officer considered a Use Permit Renewal and Amendment, pursuant to Section 6500 of the County Zoning Regulations, to (1) allow the continued operation of an existing telecommunication facility, (2) legalize the addition of supporting equipment cabinets located within a ground lease area, and (3) install a 6-ft. to 8-ft. redwood fence around the ground equipment lease area (23'-3" by 16'-6"). The Use Permit includes a fence height exception for the 6-ft. to 8-ft. redwood fence enclosure where 4-ft. is the maximum allowed within the public right-of-way.

Based on information provided by staff and evidence presented at the hearing, the Zoning Hearing Officer continued this item until January 15, 2015 to allow time for the following:

- Applicant to explore the possibility of reducing the square footage of the fenced area for the existing equipment;
- Applicant to provide an on-site "mock-up" of the fenced area so that residents can comment on the potential impacts of the proposed fencing;
- Applicant to provide additional informational regarding the need for this specific site in the overall AT&T network and the ramifications of either removing the site altogether or reducing the size of the equipment; and
- Additional explanation from the County Department of Public Works (DPW) about its analysis of potential sight-distance impacts or other potential safety impacts of the proposed fencing. If the explanation from DPW raises potential safety concerns, the applicant will have the opportunity, at its expense, to hire a traffic engineer to address those concerns.

Please direct any questions to Project Planner Summer Burlison at 650-363-1815 or sburlison@smcgov.org

Sincerely,

Lisa Grote
Zoning Hearing Officer
zhd1204y_3.dr

cc: Assessor's Office
Menlo Park Fire Protection
San Mateo County Real Property
Susie Cohen
Building Inspection Section
Public Works Department
Stanford Weekend Acres Homeowners
Joseph Brown

MEMO

To: **Summer Burlison**

From: **Leah Hernikl, Agent for AT&T**

Date: **January 27, 2015**

Summer, here is some additional information to answer questions that came up in the last hearing:

NEED FOR SITE

The site is part of AT&T's local network, and maintains connectivity for mobile users from adjacent sites on Sand Hill Road, Junipero Serra Boulevard, and the next site to the south on Alpine Road. It helps provide coverage along this curvilinear portion of Alpine Road. Without this site, in building coverage to the Stowe Lane neighborhood would also be compromised, as indicated in the coverage maps provided to you.

EQUIPMENT LOCATION

Ideally, the equipment cabinets are located as close to the antennas as possible, and the maximum distance for good functionality is about 300 feet. For a discussion of alternate locations for the equipment cabinets, these locations were considered. Aerial views are attached:

1) Co-locate with existing AT&T site CNU0334A at the intersection of Alpine Road and Alpine Access Road/SLAC entrance: This is over a quarter mile from the subject antenna site, and exceeds the maximum distance between equipment and the antennas.

2) Locate next to antennas: This would typically be the optimum location. From researching the original approval for the facility in 1999, it seems that the current equipment location was considered a good location because existing trees and shrubbery helped to screen it. This location has less space, and adding equipment here could impair visibility to the south for drivers exiting Wildwood Land onto Alpine Road.

3) Locate on the west side of Alpine Road near the antennas: Additional information or a survey would be necessary to confirm that the limits of the right-of-way are wide enough to accommodate the equipment and fence. Because of the sloped terrain, a short retaining wall would be necessary. Power and telco lines would need to be extended to this location by trenching across, or boring under, Alpine Road.

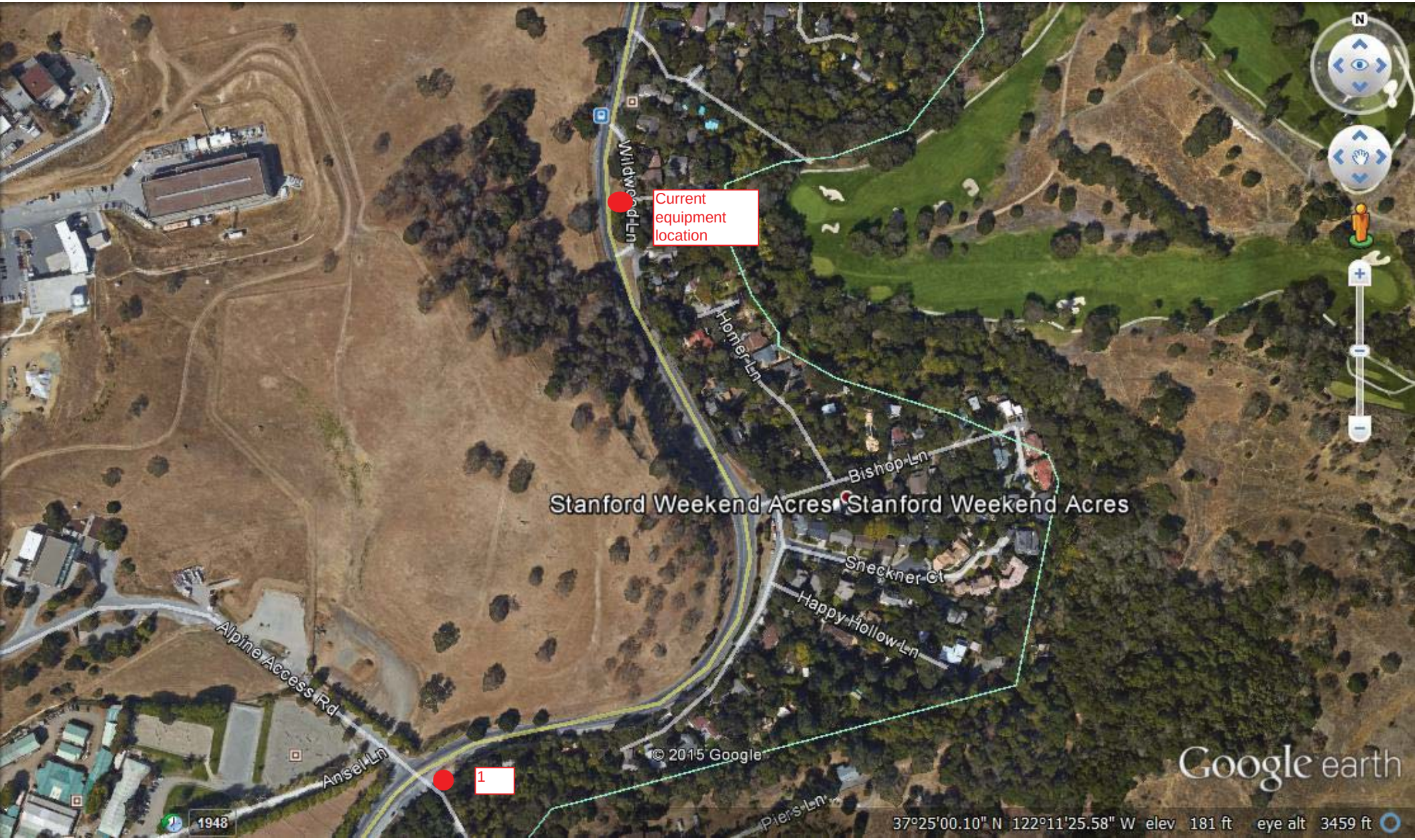
4) Locate on the west side of Alpine Road within 300 feet of the antennas: Additional information or a survey would be necessary to confirm that the limits of the right-of-way are wide enough to accommodate the equipment and fence. Moving 300 to the north, the maximum distance from the antennas, would be in a flatter area not requiring a retaining wall. Power and telco lines would need to be extended to this location by trenching across, or boring under, Alpine Road.

CURRENT LOCATION AND TRAFFIC CONSIDERATIONS

AT&T appreciates the concern for maintaining good visibility for drivers, and will work on a fence design that is as small as possible, and meets San Mateo County Public Works standards for line-of-sight.

From my visits to the site, it seems that the northern terminus of Wildwood at Alpine Road has reasonable line-of-sight in both directions.

From the southern end of Wildwood, views to the south along Alpine are unobstructed. For views to the north, existing vegetation, and the AT&T equipment do block some visibility for drivers looking to make a left turn onto Alpine. However, Public Works has standards to regulate appropriate sight distances. In addition, Wildwood has two ways to enter Alpine Road, and left hand (southbound) turns onto Alpine road could be made from the northern end of Wildwood.


Current equipment location
Wildwood Ln
Homer Ln
Bishop Ln
Stanford Weekend Acres
Stanford Weekend Acres
Sneckner Ct
Happy Hollow Ln
Alpine Access Rd
Ansel Ln
1
© 2015 Google
Google earth
1948
Piers Ln
37°25'00.10" N 122°11'25.58" W elev 181 ft eye alt 3459 ft


4
Wildwood Ln
Current location
3
2
© 2015 Google
Google earth
1948
37°25'05.40" N 122°11'27.39" W elev 177 ft eye alt 700 ft

Sight Distance

Adapted from the Iowa Department of Transportation's policy

Guidelines for adequate sight distance are one of the most important and basic approaches a community can take in managing access to its roadways. Sight distance guidelines can help communities ensure that its arterials are safe for motorists and pedestrians. Sight distance guidelines can also help communities promote adequate spacing of residential and commercial driveways.

What is sight distance?

Sight distance is the length of the highway visible to a driver. A safe sight distance is the distance needed by a driver on an arterial, or a driver exiting a driveway or street, to verify that the road is clear and avoid conflicts with other vehicles. Sight lines must be kept free of objects which might interfere with the ability of drivers to see other vehicles (see figure 1). Features such as hills, curves in the road, vegetation, other landscaping, signs, and buildings can reduce sight distance.

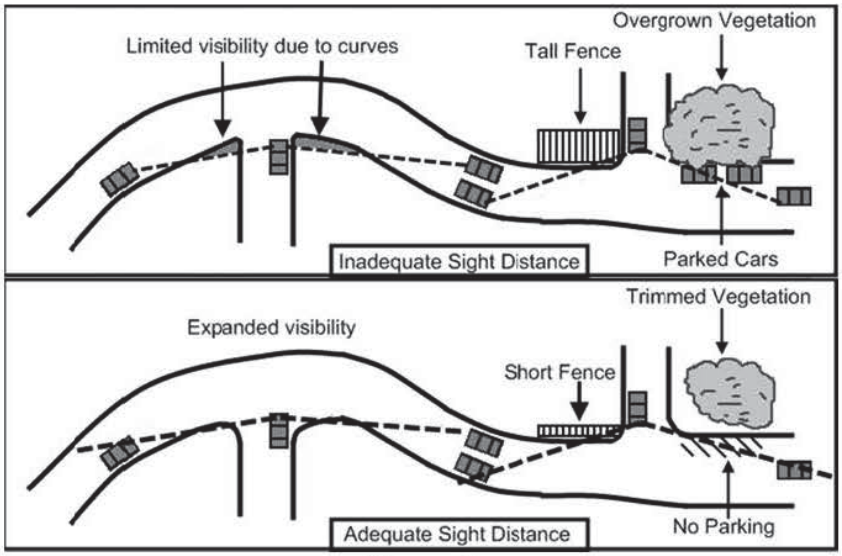


Figure 1

Why is sight distance important?

Sight distance is critical to motorists in making decisions such as to stop, slow down, turn, enter a traffic stream from a driveway or public road, or merge into traffic. Adequate sight distance allows motorists the time they need to avoid crashes and conflicts, and it will help keep roadways operating safely and smoothly.

What is a reasonable sight distance?

The safe sight distance for low and medium volume driveways should be large enough to allow vehicles on the arterial to slow down to a reasonable speed, but not stop, to avoid a collision with vehicles exiting a driveway. The safe sight distance for high volume driveways should be higher to allow a greater margin of safety.

The San Mateo County Department of Public Works sight distance policy is based upon the American Association of State Highway and Transportation Officials (AASHTO) stopping distance criteria and posted daytime speed limits for passenger cars. The following table shows desirable sight distances published in the California Department of Transportation (Caltrans) Highway Design Manual.

Design Speed (mph)	Stopping (ft)
20	125
25	150
30	200
35	250
40	300
45	360
50	430

The numbers given are guidelines and will vary depending on several factors, including road curve and grade. On tighter curves and higher grades, sight distances increase greatly. Consult a detailed manual for specific numbers. The following table shows desirable sight distances for varying grades as published in the *Geometric Design of Highways and Streets, 2004*, by the AASHTO.

Design Speed (mph)	Stopping Sight Distance(ft)					
	Downgrades			Upgrades		
	3%	6%	9%	3%	6%	9%
25	158	165	173	147	143	140
30	205	215	227	200	184	179
35	257	271	287	237	229	222
40	315	333	354	289	278	269
45	378	400	427	344	331	320
50	446	474	507	405	388	375

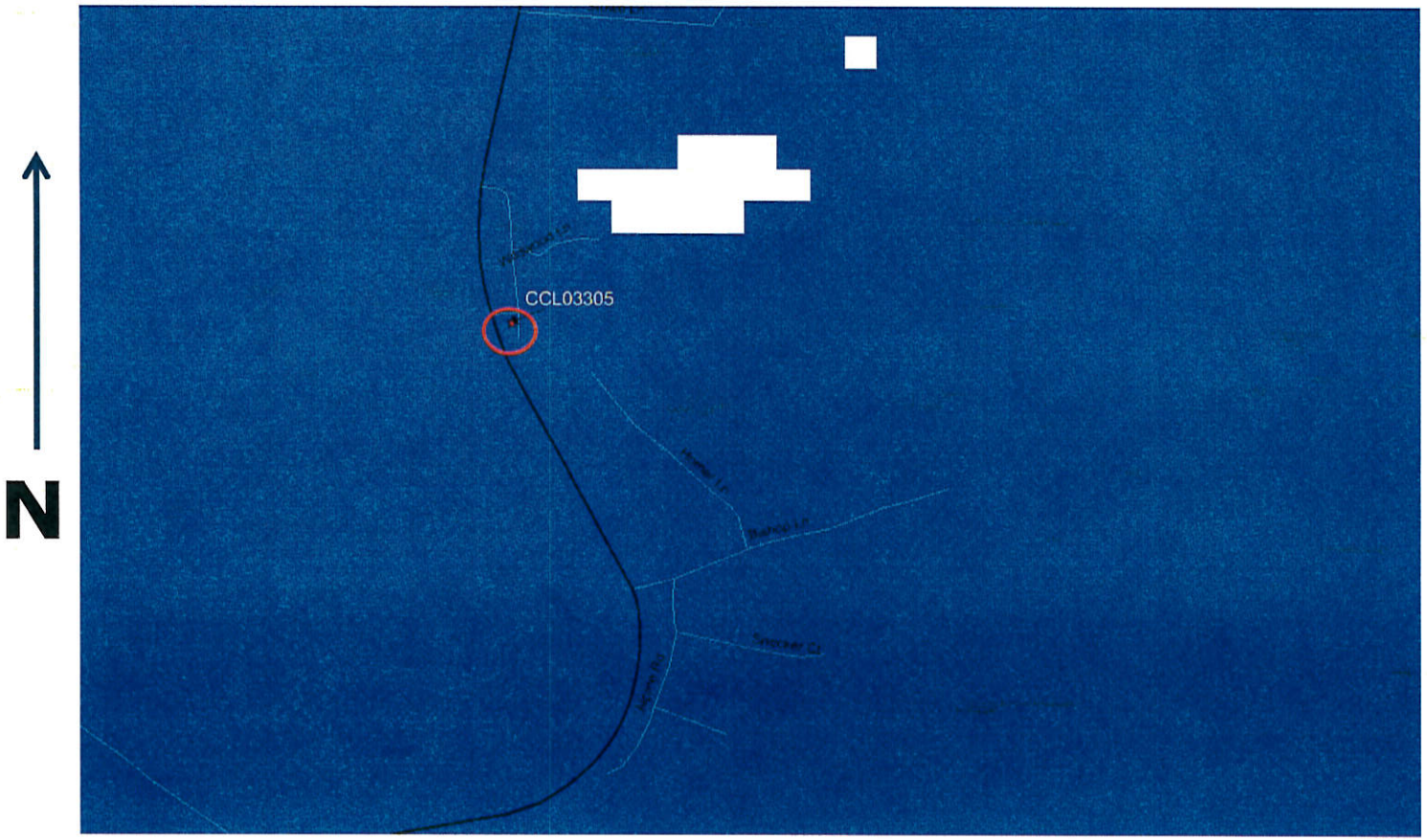
CCL03305 Permanent Site Propagation Map

November 18, 2015

Site Objective: To help improve LTE Services on the area around the proposed site modifications (Mods).

Indoor LTE 4G Service Coverage BEFORE Antenna Mods – CCL03305

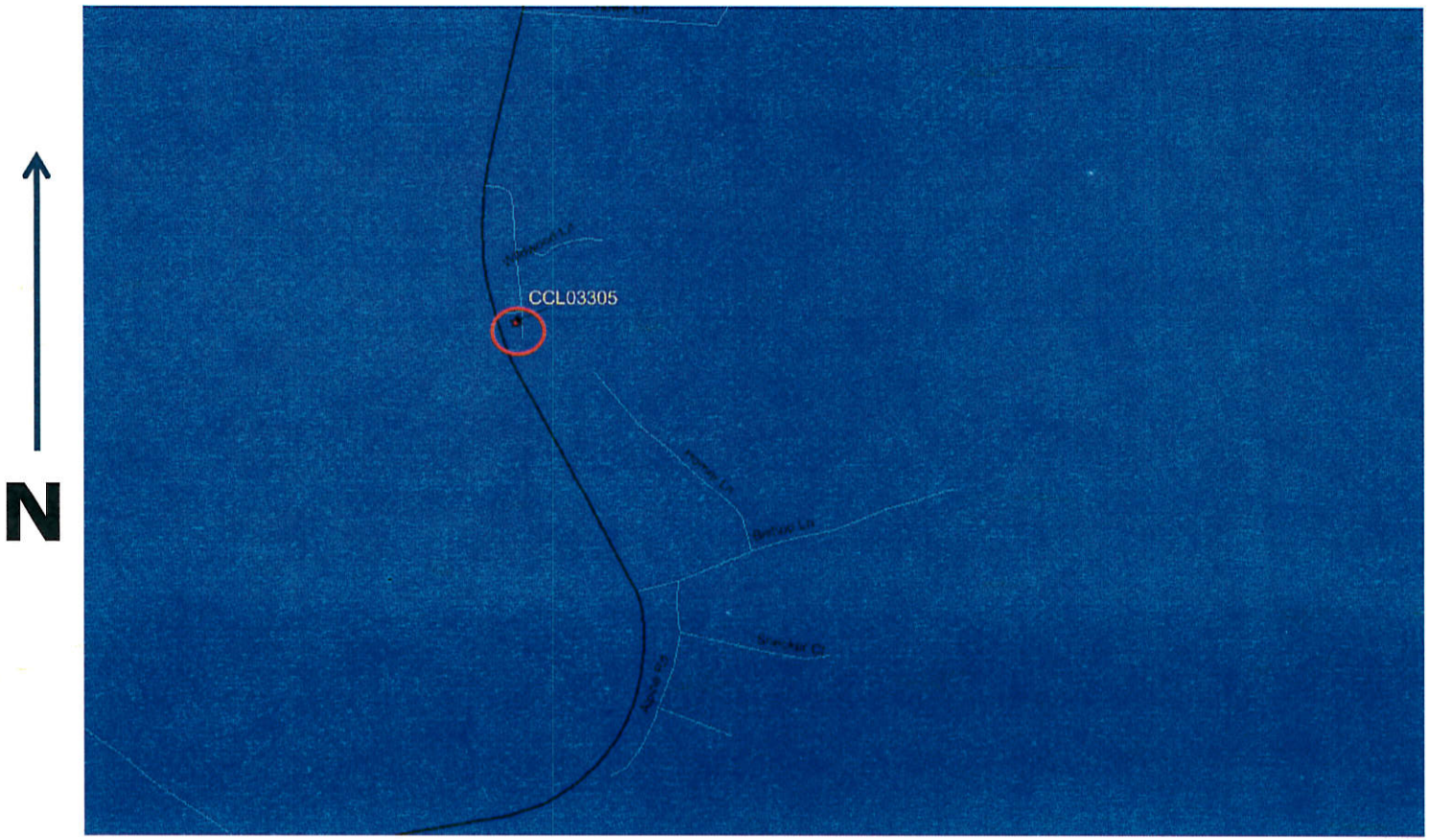
November 18, 2015



at&t

Indoor LTE 4G Service Coverage AFTER Antenna Mods– CCL03305

November 18, 2015



CCL03305 – RF STATEMENT

The proposed Permit Renewal & Amendment Application (PLN1999-00726) at **2509 ALPINE ROAD, MENLO PARK, SAN MATEO CA 94025,** is necessary in order to improve the coverage and capacity of the existing 4G LTE network. Currently the site is a 1-sector site and is configured to share the 2G antenna as well. This means that over half of the potential performance of the 4G LTE network is not realizable on the 1 sector that is currently configured for 4G LTE and the residents on the northeast side of Alpine road are not getting any benefit of the 4G LTE network. This is especially impactful for those who rely on the ATT network for broadband data services and who increasingly use their mobile phones as their primary communication device (landlines to residences have decreased significantly) and rely on their mobile phones to do more (E911, GPS, web access, text, etc.). Unfortunately, there are structural limitations with the current AT&T existing 43' utility pole which prevent AT&T from implementing these necessary 4G LTE improvements for the community. AT&T is proposing to remove our existing pole equipment from the 43' utility pole, and relocate @150' to an existing 52' utility pole (next to the AT&T ground equipment). By placing the pole equipment at 38' Top of Antenna with a RAD Center of 35' 8", the RRUs underneath the antennas at 32' allows AT&T to stack our pole equipment and to have proper separation from the existing PGE OH lines. In addition, this stacking design will place our antennas above the mature trees in the area and will result in keeping our pole equipment closer to the utility pole for a more aesthetically pleasing design. This 4G LTE modification will provide substantial improvement in service to residents located on northeast of Alpine Road and will allow them to fully experience the advantage of ATT's high speed 4G LTE

4G LTE is capable of delivering speeds up to 10 times faster than industry-average 3G speeds. LTE technology also offers lower latency, or the processing time it takes to move data through a network, such as how long it takes to start downloading a webpage or file once you've sent the request. Lower latency helps to improve the quality of personal wireless services. What's more, LTE uses spectrum more efficiently than other technologies, creating more space to carry data traffic and services and to deliver a better overall network experience. AT&T designs and builds and expands its wireless network as necessary to satisfy its customer service standards, which ensure customers receive reliable high speed data.

at&t