

## **AGENDA**

### **CITY OF ANTIOCH ZONING ADMINISTRATOR**

**THURSDAY, NOVEMBER 8, 2018  
3:00 P.M.**

### **REGULAR MEETING**

**CITY HALL SECOND FLOOR CONFERENCE ROOM  
200 "H" STREET**

### **APPEAL**

All items that can be appealed under Section 9-5.2705 of the Antioch Municipal Code must be appealed within five (5) working days of the date of the decision. The final appeal date of decisions made at this meeting is 5:00 PM on **FRIDAY, NOVEMBER 16, 2018**.

### **PUBLIC COMMENTS**

### **NEW PUBLIC HEARINGS**

1. **UP-18-12, AR-18-11 – Costco Fuel Facility Expansion** – Costco Wholesale requests approval of a use permit and design review to expand the existing fuel facility. The subject property is located at 2201 Verne Roberts Circle (**APN 074-052-020**).
2. **UP-18-17 - Antioch Coin, Jewelry and Pawn** - Adam Grossi requests approval of a Use Permit to operate a pawn shop. The subject property is located at 1912 A Street (**APN 067-251-005**).
3. **UP-18-16, AR-18-14 – Empire Shopping Center Wireless Facility** – Ridge Communication, on behalf of Verizon, requests approval of a use permit and design review to install a new wireless antenna facility. The subject property is located at 5887 Lone Tree Way (**APN 056-390-007**). This project has been determined to be exempt from CEQA.

**STAFF REPORT**

**STAFF REPORT**

**STAFF REPORT**

### **ORAL COMMUNICATIONS**

### **WRITTEN COMMUNICATIONS**

### **ADJOURNMENT**

### **Notice of Availability of Reports**

**This agenda is a summary of the actions proposed to be taken by the Zoning Administrator. For almost every agenda item, materials have been prepared by the City staff for the Zoning Administrator's consideration. These materials include staff reports which explain in detail the item before the Zoning Administrator and the reason for the recommendation. The materials may also include resolutions or ordinances which are proposed to be adopted. Other materials, such as maps and diagrams, may also be included. All of these materials are available at the Community Development Department located on the 2<sup>nd</sup> floor of City Hall, 200 "H" Street, Antioch, California, 94509, between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday for inspection and copying (for a fee) or on our website at:**

**<https://www.antiochca.gov/fc/community-development/planning/Project-Pipeline.pdf>.**

**Questions on these materials may be directed to the staff member who prepared them, or to the Community Development Department, who will refer you to the appropriate person.**

**STAFF REPORT TO THE ZONING ADMINISTRATOR  
FOR CONSIDERATION AT THE MEETING OF NOVEMBER 8, 2018**

**Prepared by:** Kevin Scudero, Associate Planner *KS*

**Approved by:** Alexis Morris, Planning Manager *AM*

**Date:** November 2, 2018

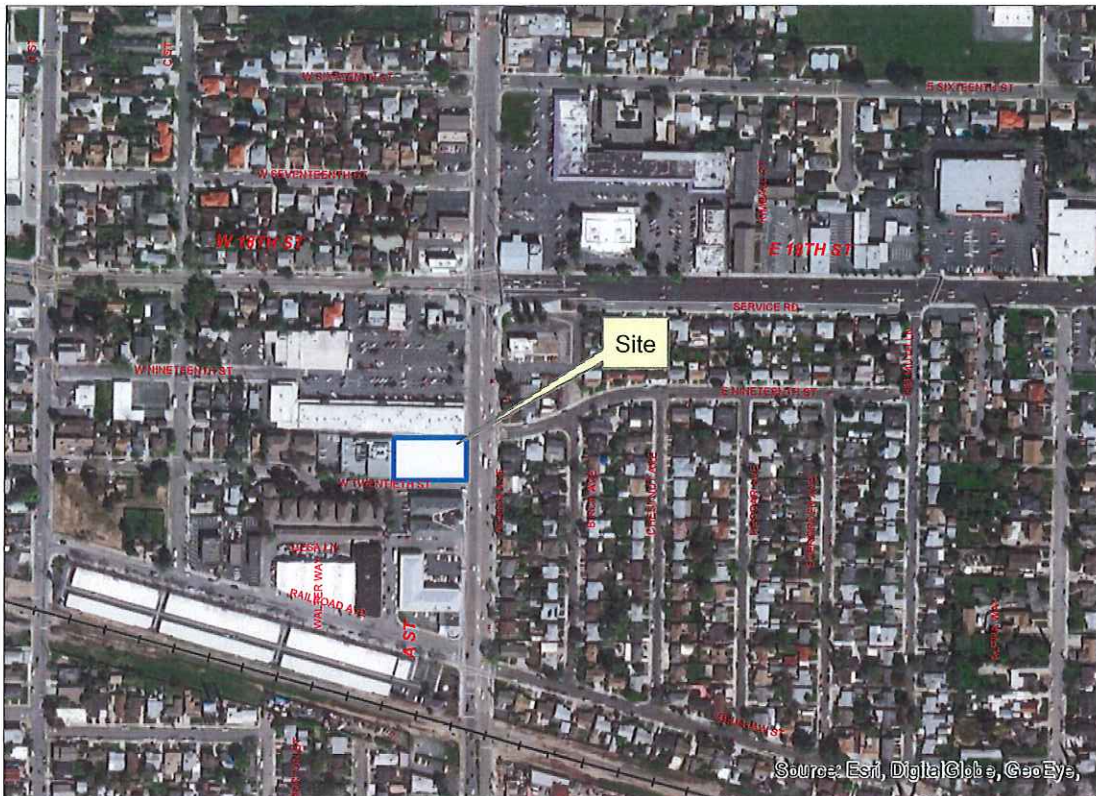
**Subject:** Antioch Coin, Jewelry and Pawn (UP-18-17)

**RECOMMENDATION**

It is recommended that the Zoning Administrator **APPROVE** a use permit allowing a pawn shop at the subject property at 1912 A Street, subject to the conditions contained in the attached resolution.

**REQUEST**

Adam Grossi requests approval of a Use Permit to operate a pawn shop. The subject property is located at 1912 A Street (APN 067-251-005).



## **ENVIRONMENTAL**

This project is Categorically Exempt from the provisions of CEQA, pursuant to Section 15301 – Existing Facilities. This section of CEQA exempts projects that:

- Consist of the operation of existing public or private structures.
- Involve negligible or no expansion of an existing use beyond that existing at the time of the lead agency determination.

## **ANALYSIS**

### **Issue #1: Project Overview**

The applicant proposes to operate a coin, jewelry, and pawn business at the subject property, which has a total square footage of approximately 3,783 square. The applicant has been operating the same business for the last ten years in an adjacent suite (1900 A Street) and is relocating to 1912 A Street because it is a larger space with greater visibility. The relocation to the new suite requires a use permit. The applicant estimates that thirty percent of their business comes from pawns with the remainder coming from purchases and retail sales. The hours of operation would be from 10:00 a.m. – 6:00 p.m. Monday through Friday and 10 a.m. – 4:00 p.m. Saturday. The pawn aspect of the business is regulated by the State of California Department of Justice and the business is required to have a pawnbroker license from the State of California to operate.

### **Issue #2: General Plan, Zoning and Land Use**

The site has a general plan designation of Neighborhood Commercial and a zoning designation of Neighborhood Commercial (C-2), which allows for pawn businesses with the approval of a use permit.

The surrounding land use and zoning designations are:

North:	Shopping Center/ Neighborhood Commercial (C-2)
South:	ABC Building (Commercial)/ Neighborhood Commercial (C-2)
East:	Single Family Homes / Single Family Residential (R-6)
West:	Apartment Building /Neighborhood Commercial (C-2)

### **Issue #3: Security**

The proposed business will have a UL certified alarm system with onsite cameras and numerous backup systems and store personnel will wear panic buttons at all times. Staff has included a condition of approval in the attached resolution requiring that all video surveillance be maintained for thirty days and that the footage shall be provided to the Antioch Police Department upon request. The business has currently operated in the area for ten years and the Antioch Police Department has not received “excessive” calls for service for the business.



For every pawn transaction that takes place the store records the description of the item, customer ID, thumbprint, and signature attesting that the item is theirs to sell or pawn. All of this information is then uploaded daily into a statewide database that law enforcement can search at any time.

### **ATTACHMENTS**

- A. Resolution
- B. Applicant's Project Description

# ATTACHMENT “A”

**CITY OF ANTIOCH ZONING ADMINISTRATOR  
RESOLUTION NO. 2018-\*\***

**RESOLUTION OF THE CITY OF ANTIOCH ZONING ADMINISTRATOR  
APPROVING A USE PERMIT (UP-18-17) FOR A PAWN SHOP BUSINESS  
LOCATED AT 1912 A STREET**

**WHEREAS**, Adam Grossi requests approval of a Use Permit to operate a pawn shop business. The subject property is located at 1912 A Street (APN 067-251-005); and,

**WHEREAS**, this project is Categorically Exempt from the provisions of CEQA, pursuant to section 15301; and,

**WHEREAS**, the Zoning Administrator duly gave notice of public hearing as required by law; and,

**WHEREAS**, the Zoning Administrator on November 8, 2018, duly held a public hearing and received and considered evidence, both oral and documentary; and,

**WHEREAS**, the Zoning Administrator does determine:

1. The granting of such Use Permit will not be detrimental to the public health or welfare or injurious to the property or improvements in such zone or vicinity.

The proposed pawn shop use will not be detrimental to the surrounding property or improvements. Based upon the conditions imposed, the proposed use will not create adverse impacts to the surrounding businesses and residents.

2. The use applied at the location indicated is properly one for which a Use Permit is authorized.

The site is located in the C-2 Neighborhood Commercial zoning district. The C-2 district allows pawn shops with the approval of a use permit.

3. That the site for the proposed use is adequate in size and shape to accommodate such use, and all parking, and other features required.

The proposed use will take place at a developed site with an existing building that will require minimal improvements to the site. There is sufficient parking at the site.

4. That the site abuts streets and highways adequate in width and pavement type to carry the kind of traffic generated by the proposed use.

The project site is currently developed and is located at the corner of A Street and West 20<sup>th</sup> Street, which are adequate in width and pavement type to carry the traffic generated by the proposed use.

5. The granting of such Use Permit will not adversely affect the comprehensive General Plan.

The use will not adversely affect the comprehensive General Plan because the project is consistent with the General Plan designation of Neighborhood Commercial.

**NOW THEREFORE BE IT RESOLVED**, the Zoning Administrator of the City of Antioch does hereby **APPROVE** UP-18-17, to allow a pawn shop business located at 1912 A Street (APN 067-251-005), subject to the following conditions:

**A. GENERAL CONDITIONS**

1. The project shall comply with the Antioch Municipal Code. All construction shall conform to the requirements of the California Building Code and City of Antioch standards.
2. The applicant shall defend, indemnify, and hold harmless the City in any action brought by a third party to challenge the land use entitlement. In addition, if there is any referendum or other election action to contest or overturn these approvals, the applicant shall either withdraw the application or pay all City costs for such an election.
3. The project shall be implemented as indicated on the application form and accompanying materials provided to the City and in compliance with the Antioch Municipal Code, or as amended by the Zoning Administrator.
4. No building permit will be issued unless the plan conforms to the project description and materials as approved by the Zoning Administrator and the standards of the City.
5. This approval expires two years from the date of approval (expires November 8, 2020), unless an extension has been approved by the Zoning Administrator. Requests for extensions must be received in writing with the appropriate fees prior to the expiration of this approval. No more than one one-year extension shall be granted.

6. No permits or approvals, whether discretionary or mandatory, shall be considered if the applicant is not current on fees, reimbursement payments, and any other payments that are due.

**B. FIRE REQUIREMENTS**

1. All requirements of the Contra Costa County Fire Protection District shall be met.

**C. FEES**

1. The applicant shall pay all fees as required by the City Council.
2. The applicant shall pay all required fees at the time of building permit issuance.

**D. PROPERTY MAINTENANCE**

1. No illegal signs, pennants, banners, balloons, flags, or streamers shall be used on this site at any time.
2. The site shall be kept clean of all debris (boxes, junk, garbage, etc.) at all times.
3. No signs shall be installed on this site without prior City approval.

**E. PROJECT SPECIFIC REQUIREMENTS**

1. The use permit applies to a pawn business at 1912 A Street as described in the project description and plans submitted to the City of Antioch on August 23, 2018.
2. All necessary licenses for conducting a pawn business shall be maintained at all times.
3. All surveillance footage shall be maintained for a minimum of thirty days and provided to law enforcement upon request.
4. The business shall not be open before 8:00 a.m. or after 8:00 p.m.
5. The applicant may be subject to a Planning Commission hearing, per Section 9-5.2707.1 of the City of Antioch Municipal Code, if the Antioch Police Department or Code Enforcement Division must respond to this property as a result of complaints received due to incidents related to the operation of the pawn business facility at 1912 A Street. If the Planning Commission determines that the conditions of approval are not met or the use has become a public nuisance or otherwise a threat to public health, safety, or welfare, it can result in revocation of the use permit or imposition of a fine.

\* \* \* \* \*

**I HEREBY CERTIFY** that the foregoing resolution was passed and adopted by the Zoning Administrator of the City of Antioch at a regular meeting thereof held on the 8th day of November, 2018.

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FORREST EBBS  
ZONING ADMINISTRATOR



# ATTACHMENT “B”

## Antioch Coin and Jewelry Pawn Summary

Antioch Coin and Jewelry Pawn has been operating at its existing location in Antioch at 1900 A Street for 10 years serving local residents by buying, selling, and pawning jewelry, coins, and ancillary merchandise. We recently opened an additional showroom to concentrate on retail sales at 1912 A Street but found that our business would be better served by consolidating all our operations from the two locations down to one, just at 1912 A Street. We humbly ask the city to grant us a use permit to effect that consolidation.

The numerous services we offer provide value to local residents. Someone who wishes to buy a piece of jewelry for themselves or their loved ones at our store will save around 50-80% off the price they would have to pay at a retail jewelry store. This benefit is magnified by the fact that a significant portion of our clientele are low income for whom every penny counts. Someone who wishes to sell their merchandise can do so at our store, or they can pawn it instead and get a short term loan with their item as the collateral. While we wait for them to come pay off the loan we store the items in storage in our store using high security safes as appropriate for high valuable merchandise such as jewelry and coins. The location of the safes is not indicated on the floor plan for security reasons. People come to us and say it is a great relief to them that we are able to loan them money for a variety of unexpected emergencies, car repairs, prescription medicine or doctors visits for their kids, house repairs, job layoffs etc. Our interest rates on pawn loans are set by the state of California and are among the lowest any state can charge, and far lower than typical rates charged by payday lenders or title lenders, or overdraft fees at banks. Roughly 30% of our business is pawn based while the rest comes from buys and retail sales.

Just as we've striven to serve our customers, we've also realized we have to be a good citizen of the community at large. We've contributed to local nonprofits, including kids sports leagues and the rotary club. We've maintained good relations with the Antioch police department and other local police departments. We rigorously adhere to laws and regulations designed to find and prevent the dissemination of stolen property. For every pawn transaction and every non coin purchase transaction we write a description of the item taken in, the ID information of the customer, we get their signature and thumbprint attesting the item is theirs to sell or pawn, and all this information gets uploaded every day to the statewide database which law enforcement can search at any time. Because of these procedures, the number of items we take in that are reported stolen is very rare. Thieves are strongly deterred from selling or pawning with businesses like us that follow the law and rather seek out illegal gold buyers at places like flea markets.

Security is also of paramount importance. The security alarm system at 1912 A Street is UL certified with onsite cameras and numerous backup systems. Store personnel wear panic buttons at all times and we

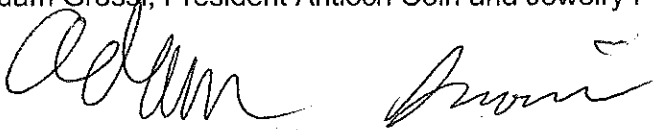
have a trained and licensed security guard almost always on premises. We've trained staff on entering and exiting procedures and what to do in the event of an armed robbery. As a result of our proactive steps we have never had an attempted or successful robbery or burglary at either 1900 A Street or 1912 A Street in all the time we've been in operation.

All of the business processes discussed so far would not be changed if we receive the permit to move everything to the 1912 A Street address. Our store layout would remain the same as it is now with a bright, inviting showroom that houses numerous attractive and interesting items for sale. The total square feet of 1912 A Street is 3,783. The acreage of the entire site is .319. Our hours of operation would be 10am to 6pm monday to friday and 10am-4pm saturday. We anticipate we'll generally need 5 employees on site during the workday. Parking needs and traffic flows will be the same as currently since we aren't changing our operations. The parking required by the city is technically 35 spaces, and we've found that the parking currently well handles the building's needs already. The parking lot for our building has 24 parking spaces with ample on street parking on West 18th Street and A Street.

We thank you for your time and attention in considering this use permit application.

Sincerely,

Adam Grossi, President Antioch Coin and Jewelry Pawn

A handwritten signature in black ink, appearing to read 'Adam Grossi', written over a faint, illegible printed name.

**STAFF REPORT TO THE ZONING ADMINISTRATOR  
FOR CONSIDERATION AT THE MEETING OF NOVEMBER 8, 2018**

**Prepared by:** Kevin Scudero, Associate Planner 

**Approved by:** Alexis Morris, Planning Manager 

**Date:** November 2, 2018

**Subject:** Costco Fuel Facility Expansion (UP-18-12, AR-18-11)

**RECOMMENDATION**

It is recommended that the Zoning Administrator **APPROVE** a use permit and design review allowing the expansion of the existing fuel facility and modification to existing hours of operation at the subject property at 2201 Verne Roberts Circle, subject to the conditions contained in the attached resolution.

**REQUEST**

Costco Wholesale requests approval of a use permit and design review to expand the existing fuel facility and modify their existing hours of operation. The subject property is located at 2201 Verne Roberts Circle (APN 074-052-020).



## **ENVIRONMENTAL**

This project is Categorically Exempt from the provisions of CEQA, pursuant to Section 15301 – Existing Facilities. This section of CEQA exempts projects that:

- Consist of the operation of existing public or private structures.
- Involve negligible or no expansion of an existing use beyond that existing at the time of the lead agency determination.

## **ANALYSIS**

### **Issue #1: Project Overview**

The existing use permit for the fuel facility was approved on May 2, 2007 under Planning Commission Resolution 2007-11 (Attachment C). The proposed fuel facility expansion consists of the installation of four new multi-product dispensers and a 3,360 square-foot fueling canopy expansion (7,200 square feet total). The canopy expansion is designed to match the existing structure and will include a tan, metal-wrapped canopy fascia with a cornice and CMU wrapped canopy columns.

The applicant is also requesting that the hours of operation for the fuel facility be changed in order to open one hour earlier and close a half hour later than currently permitted. The change will set the hours of operation for the fuel facility at 5:00 a.m. – 10:00 p.m. seven days a week.

### **Issue #2: General Plan, Zoning and Land Use**

The site has a general plan designation of Business Park and a zoning designation of Planned Business Center (PBC), which allows for fuel facilities as an ancillary use to the existing Costco Warehouse with the approval of a use permit.

The surrounding land use and zoning designations are:

North:	Business Park/Light Industrial Uses/ Planned Business Center (PBC)
South:	Railroad Tracks
East:	Self-Storage / Planned Business Center (PBC)
West:	Business Park / Planned Business Center (PBC)

### **Issue #3: Parking and Circulation**

The project will not impact the existing parking on site. The fuel facility will continue to facilitate a single-direction circulation with a full-length bypass lane between each dispenser island. To facilitate circulation into and out of the center fueling position, the design has incorporated an additional seven feet of maneuvering space between the center and front dispensers.

#### **Issue #4: Construction Hours**

The applicant is requesting a waiver to allow temporary night construction be allowed for the project between the hours of 6:00 p.m. and 7:00 a.m. Monday through Friday and between 5:00 p.m. and 9:00 a.m. Saturday through Sunday pursuant to Antioch Municipal Code Section 5-17.06. Night construction for this project will be limited to approximately 65 days and would benefit the area by reducing the overall construction timeframe, minimizing impacts to surrounding businesses and patrons during the day. Night construction would also allow for certain activities that require additional safety measures and testing procedures that would otherwise require an extended project schedule.

The Costco fuel facility is located in a business park with no residential properties in the vicinity. The applicant has submitted a sound study (Attachment D) demonstrating that the noise generated by the nighttime construction would not impact any sensitive uses likely to be disturbed by the construction activity.

#### **ATTACHMENTS**

- A. Resolution
- B. Applicant's Project Description
- C. Planning Commission Resolution 2007-11
- D. Sound Study



# ATTACHMENT “A”

**CITY OF ANTIOCH ZONING ADMINISTRATOR  
RESOLUTION NO. 2018-\*\***

**RESOLUTION OF THE CITY OF ANTIOCH ZONING ADMINISTRATOR  
APPROVING A USE PERMIT AND DESIGN REVIEW (UP-18-17, AR-18-11) FOR AN  
EXPANSION OF AN EXISTING FUEL FACILITY LOCATED AT 2201 VERNE  
ROBERTS CIRCLE**

**WHEREAS**, Costco Wholesale requests approval of a Use Permit and Design Review to expand their existing fuel facility. The subject property is located at 2201 Verne Roberts Circle (APN 074-052-020); and,

**WHEREAS**, this project is Categorically Exempt from the provisions of CEQA, pursuant to section 15301; and,

**WHEREAS**, the Zoning Administrator duly gave notice of public hearing as required by law; and,

**WHEREAS**, the Zoning Administrator on November 8, 2018, duly held a public hearing and received and considered evidence, both oral and documentary; and,

**WHEREAS**, the Zoning Administrator does determine:

1. The granting of such Use Permit will not be detrimental to the public health or welfare or injurious to the property or improvements in such zone or vicinity.

The proposed fuel facility expansion will not be detrimental to the surrounding property or improvements. Based upon the conditions imposed, the proposed use will not create adverse impacts to the surrounding businesses.

2. The use applied at the location indicated is properly one for which a Use Permit is authorized.

The site is located in the PBC Planned Business Center zoning district. The PBC district allows fuel facilities as an ancillary use to the existing Costco Warehouse.

3. That the site for the proposed use is adequate in size and shape to accommodate such use, and all parking, and other features required.

The proposed expansion will take place at a developed site with an existing fuel facility and will require minimal improvements to the site.

4. That the site abuts streets and highways adequate in width and pavement type to carry the kind of traffic generated by the proposed use.

The project site is currently developed and is located along Verne Roberts Circle, which is adequate in width and pavement type to carry the traffic generated by the proposed use.

5. The granting of such Use Permit will not adversely affect the comprehensive General Plan.

The use will not adversely affect the comprehensive General Plan because the project is consistent with the General Plan designation of Business Park.

**NOW THEREFORE BE IT RESOLVED**, the Zoning Administrator of the City of Antioch does hereby **APPROVE** UP-18-12, AR-18-11, to allow an expansion of the existing fuel facility located at located at 2201 Verne Roberts Circle (APN 074-052-020), subject to the following conditions:

**A. GENERAL CONDITIONS**

1. The project shall comply with the Antioch Municipal Code. All construction shall conform to the requirements of the California Building Code and City of Antioch standards.
2. The applicant shall defend, indemnify, and hold harmless the City in any action brought by a third party to challenge the land use entitlement. In addition, if there is any referendum or other election action to contest or overturn these approvals, the applicant shall either withdraw the application or pay all City costs for such an election.
3. The project shall be implemented as indicated on the application form and accompanying materials provided to the City and in compliance with the Antioch Municipal Code, or as amended by the Zoning Administrator.
4. No building permit will be issued unless the plan conforms to the project description and materials as approved by the Zoning Administrator and the standards of the City.
5. This approval expires two years from the date of approval (expires November 8, 2020), unless an extension has been approved by the Zoning Administrator. Requests for extensions must be received in writing with the appropriate fees prior to the expiration of this approval. No more than one one-year extension shall be granted.
6. No permits or approvals, whether discretionary or mandatory, shall be considered if the applicant is not current on fees, reimbursement payments, and any other payments that are due.

**B. FIRE REQUIREMENTS**

1. All requirements of the Contra Costa County Fire Protection District shall be met.

**C. FEES**

1. The applicant shall pay all fees as required by the City Council.
2. The applicant shall pay all required fees at the time of building permit issuance.

**D. PROPERTY MAINTENANCE**

1. No illegal signs, pennants, banners, balloons, flags, or streamers shall be used on this site at any time.
2. The site shall be kept clean of all debris (boxes, junk, garbage, etc.) at all times.
3. No signs shall be installed on this site without prior City approval.

**E. PROJECT SPECIFIC REQUIREMENTS**

1. This use permit and design review approval applies to the expansion of the Costco fuel facility at 2201 Verne Roberts Circle as described in the project description and plans submitted to the City of Antioch on September 19, 2018.
2. All conditions of approval of Planning Commission Resolution 2007-11 are still applicable to the site unless modified herein.
3. The hours of operation for the fuel facility shall be from 5:00 a.m. – 10:00 p.m. seven days a week.
4. The construction hours shall be extended to 6:00 p.m. – 7:00 a.m. Monday through Friday and 5:00 p.m. – 9:00 a.m. Saturday through Sunday for a maximum of seventy days.
5. If the nighttime construction hours generate complaints or otherwise cause a public nuisance, the City Manager or his designee may modify the approved construction hours per section 5-17.06 of the Antioch Municipal Code.

\* \* \* \* \*

**I HEREBY CERTIFY** that the foregoing resolution was passed and adopted by the Zoning Administrator of the City of Antioch at a regular meeting thereof held on the 8th day of November, 2018.

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FORREST EBBS  
ZONING ADMINISTRATOR

# ATTACHMENT “B”

# **Fuel Facility Expansion Use Permit and Design Review Project Narrative**

**Costco Wholesale  
2201 Verne Roberts Circle, Antioch, California 94509  
APN 074-052-020  
Costco Loc. No. 1002 / BCE Job No. 6665 / DBA No. P.288**

**Prepared by:  
Barghausen Consulting Engineers, Inc. /  
David Babcock + Associates**

**July 2018**

## **Project Location:**

The project site for the fuel facility expansion will include the vehicle queuing area for the existing fuel facility. The overall project disturbance area is approximately 4,650 square feet. The Costco Wholesale (Costco) property is zoned Planned Business Center (PBC), in which the fuel facility is allowed as an ancillary use to the warehouse subject to a Use Permit. The existing fuel facility was previously approved under Use Permit UP-07-01.

## **Project Description:**

### Overview

Costco is seeking a Use Permit and Design Review approval to allow for an expansion of the existing fuel facility. The project will include a 3,360-square-foot fueling canopy expansion (7,200 square feet total), the installation of four (4) new multi-product dispensers, and associated site improvements. Additionally, Costco is requesting that the hours of operation for the fuel facility be modified to allow the station to open one (1) hour earlier and close a half-hour later than currently permitted. The change will set the hours of operation for the fuel facility at 5:00 a.m. to 10:00 p.m. Sunday through Saturday. The additional hours will accommodate members needing earlier and later access to the facility. The expansion will result in shorter queue wait times and provide a more efficient fuel purchasing experience for Costco members.

### Grading

Site grading will be limited to the installation of canopy footings, product piping, and stormwater improvements associated with the under-canopy area.

### Parking and Circulation

The project will not impact the existing parking on the site. The overall Costco development provides 822 parking stalls. City parking standards require a minimum of five (5) parking stalls for every 1,000 square feet of gross floor area for retail uses, and a minimum of four (4) parking stalls for each gas station use. The existing warehouse measures 161,150 square feet in size, and therefore, a minimum of 810 stalls is required for the Costco development. Off-street parking for the overall Costco development will continue to exceed the City's minimum requirements after the fueling facility is expanded.

The fuel facility will continue to facilitate a single-direction circulation with a full-length bypass lane between each dispenser island. To facilitate circulation into and out of the center fueling position, the design has incorporated an additional seven (7) feet of maneuvering space between the center and front dispensers.



#### Transportation

The expansion is not anticipated to generate a significant number of new trips and it will provide a more efficient fuel-purchasing experience for Costco members.

#### Architectural Design

The canopy expansion is designed to match the existing structure and will include a tan, metal-wrapped canopy fascia with a cornice and CMU wrapped canopy columns.

#### Lighting and Signage

The under-canopy lighting will continue to be flat lens LED lighting fixtures for the existing canopy and expansion. Sign lighting will also be LED. The existing canopy signs are approximately 26 square feet in size and will be replaced with new 20-square-foot "Costco Wholesale" signs located and centered on each façade of the canopy.

#### Landscaping

The project will not impact the existing site landscaping. The Site Plan shows a 20-foot setback along Verne Roberts Circle, a 13-foot setback along the west interior property line, a 20-foot setback along the rear property line, and a 10-foot setback along the east interior property line. City landscape standards require a 20-foot landscape setback along Verne Roberts Circle and a 5-foot landscape setback for the remainder of the site. The site will continue to exceed the City's minimum landscape requirement after the fueling facility is expanded.

#### Construction

Construction of the expansion will be completed in a single phase and commence after approval of the applicable permits. Depending on construction sequencing, the existing fueling facility may remain open during construction.

### **Purpose of Request:**

#### Use Permit

Pursuant to Antioch Municipal Code Section 9-5.2703, a Use Permit shall be approved if the following findings are met:

- (a) That the granting of such use permit will not be detrimental to the public health or welfare or injurious to the property or improvements in such zone or vicinity;
- (b) That the use applied for at the location indicated is properly one for which a use permit is authorized;
- (c) That the site for the proposed use is adequate in size and shape to accommodate such use, and all yard spaces, walls, fences, parking, loading, landscaping, and other features required, to other uses in the neighborhood;
- (d) That the site abuts streets and highways adequate in width and pavement type to carry the kind of traffic generated by the proposed use; and
- (e) That the granting of such use permit will not adversely affect the comprehensive General Plan.

#### Design Review

Pursuant to Antioch Municipal Code Section 9-5.2703, no findings are necessary for Design Review.

### **Conclusion:**

The responses above and application materials demonstrate that the expansion meets the approval criteria for a Use Permit and Design Review approval. The City's approval of this application is respectfully requested.

# ATTACHMENT “C”

**CITY OF ANTIOCH PLANNING COMMISSION  
RESOLUTION NO. 2007-11**

**WHEREAS**, the City of Antioch received a request from Costco Wholesale Corporation for approval of a lot merger of Lot 'A' (DOC-2006-0080554-00) and New Lot 13 (MS 8-89, 140 PM 29) (PW-371-RA-45) and a use permit to construct a 16 pump gasoline station. The project site is located on the southwest corner of Verne Roberts Circle and Crow Court (UP-07-01) (APN: 074-052-020); and,

**WHEREAS**, pursuant to the California Environmental Quality Act (CEQA) a Mitigated Negative Declaration and Mitigation Monitoring and Reporting Plan has been prepared; and

**WHEREAS**, the Planning Commission duly gave notice of public hearing as required by law; and,

**WHEREAS**, the Planning Commission on May 2, 2007, duly held a public hearing, received and considered evidence, both oral and documentary; and,

**WHEREAS**, the Planning Commission does determine:

1. The granting of such use permit will not be detrimental to the public health or welfare or injurious to the property or improvements in such zone or vicinity;
2. The use applied at the location indicated is properly one for which a use permit is authorized;
3. That the site for the proposed use is adequate in size and shape to accommodate such use, and all yards, fences, parking, loading, landscaping, and other features required, to other uses in the neighborhood.
4. That the city abuts streets and highways adequate in width and pavement type to carry the kind of traffic generated by the proposed use; and
5. That the granting of such use permit will not adversely affect the comprehensive General Plan.

**NOW THEREFORE BE IT RESOLVED** that the Planning Commission of the City of Antioch does hereby ADOPT the Mitigated Negative Declaration (MND) and the Mitigation and Monitoring Reporting Plan for this project with mitigations as amended in the Memo dated May 2, 2007, to the Planning Commission, and

**BE IT FURTHER RESOLVED** that the Planning Commission of the City of Antioch does hereby **APPROVE** PW-371-RA-45 and UP-07-01, subject to the following conditions:

**STANDARD CONDITIONS**

1. That the project shall comply with the Antioch Municipal Code.
2. That conditions required by the Planning Commission, which call for a modification or any change to the site plan submitted, be corrected to show those conditions and all standards and requirements of the City of Antioch prior to any submittal for a building permit. No building permit will be issued unless the site plan meets the requirements stipulated by the Planning Commission and the standards of the City.
3. That this approval expires two years from the date of approval (Expires May 2, 2009), unless a building permit has been issued and construction has diligently commenced thereon and has not expired, or an extension has been approved by the Zoning Administrator. Requests for extensions must be received in writing with the appropriate fees prior to the expiration of this approval. No more than one, one year extension shall be granted.
4. That City staff inspect the site for compliance with conditions of approval prior to final building inspection.
5. That the applicant obtains an encroachment permit for all work to be done within the public right-of-way or easements.
6. That any required easements or rights-of-way for off-site improvements are to be obtained by the developer, at no cost to the City of Antioch.
7. No buildings or refuse enclosures shall be built on any easements.
8. That advance permission shall be obtained from any property or easement holders for any work done within such property or easements.
9. That any work that would obstruct a City street not be conducted during peak commute hours, as approved by the City Engineer.
10. The developer shall pay all fees required by the City Council.
11. That the building shall be clearly identified and an exterior lighting plan be submitted for Police Department review and approval.

12. That building permits shall be secured for all proposed construction associated with this facility, including any interior improvements not expressly evident on the plans submitted.
13. That all construction shall conform to the requirements of the Uniform Building Code and City of Antioch standards.
14. That the Regional Traffic Impact Fee be paid, as well as all other applicable fees.
15. That the developer pay all required City fees at the time of building permit issuance.
16. That the use of construction equipment be restricted to weekdays between the hours of 8:00 am to 5:00 pm or as approved by the City Engineer.
17. That traffic signal fees be paid.
18. That this project shall be approved by the Design Review Board prior to the issuance of building permits for the facility. The Design Review Board shall also approve of signage for the site prior to installation.
19. That the project be in compliance with and supply all the necessary documentation for AMC6-3.2 : Construction and demolition debris recycling
20. That the applicant shall defend, indemnify and hold harmless the City in any action brought by a third party to challenge the land use entitlement.
21. That this approval supersedes the previous Zoning Administrator approval for a gas station on the site.
22. That landscaping and signing not create a sight distance problem.
23. That there be a minimum of five (5) feet clear between any proposed trees and any concrete or asphalt paving. Trees closer than ten (10) feet to such concrete or asphalt paving shall use approved root guards.
24. That detailed landscaping and irrigation plans for the entire site shall be submitted to the City for review and approval. All landscaping and irrigation shall be installed in accordance with approved plans prior to the issuance of certificates of occupancy for this building.
25. That asphalt paving shall have a minimum slope of 2% and concrete paving have a minimum slope of 0.75%, or as approved by the City Engineer.

26. That all on site curbs, gutters, and sidewalks be constructed of Portland cement concrete.
27. That all mechanical and roof equipment be screened from public view.
28. That all parking lot dimensions and striping meet City standards.
29. That all parking and access meet the ADA/Title 24 requirements as determined by the Chief Building Official using Checklist #1, Parking, CA Title 24, Sections 1129B.1 and 1130B. The location of such spaces shall provide save and convenient access to the building as determined by the Chief Building Official.
30. That any cracked or broken sidewalks be replaced as required by the City Engineer.
31. That the City Engineer shall determine if it is necessary to engage in soils and structural engineers as well as any other professionals deemed necessary to review and verify the adequacy of the building plans submitted for this project. If deemed necessary by the City, this may be extended to include field inspections by such professional to verify implementation of the plans. Cost of these services shall be born by the developer.
32. That access roadways with all-weather driving surfaces of not less than 20 feet of unobstructed width, and not less than 13 feet 6 inches of vertical distance, be provided to within 150 feet of travel distance to all portions of the exterior wall of every building, or as approved by the Fire District. Access roads shall not exceed 16% grade, shall have a minimum outside turning radius of 42 feet and must be capable of supporting the imposed loads of the fire apparatus (31 tons).
33. That a lighting plan be submitted to staff for review and approval prior to the issuance of building permits. All lighting shall be installed on site in accordance with approved plans, and prior t the issuance of certificates of occupancy for this building.
34. That all storm water flows be collected on site and discharged into an approved public storm drain system.
35. All existing and proposed public utilities (e.g. transformers, PMH boxes) shall be placed underground or screened from public view 30' from the property line, in accordance with the Antioch Municipal Code or as approved by the City Engineer.
36. That a reduced backflow prevention device be installed on all City water meter services.



37. That the applicant shall comply with all requirements and conditions, and pay all fees set forth by the Delta Diablo Sanitation District.
38. That street lighting shall be provided in accordance with the Antioch Municipal Code.
39. That improvements and fees that are required by the Contra Costa County Flood Control District be implemented, as approved by the City Engineer.
40. That the developer shall provide adequate water pressure and volume to serve this development, as approved by the City Engineer.
41. That the sewer collection system be constructed to function as a gravity system.
42. That a parking lot sweeping program be implemented which provides for sweeping, at minimum, immediately prior to and once during, storm season.
43. That standard dust control methods be used to stabilize the dust generated by construction activities.
44. That no illegal signs, pennants, banners, balloons, flags, or streamers are to be used on this site at any time.
45. That no signs be installed on this site without prior City approval.
46. That the site be kept clean of all debris (boxes, junk, garbage, etc.) at all times.
47. The project shall conform to Antioch Municipal Code Section 9-5.1001.1 concerning the landscape maintenance of non-residential projects. In addition, all landscape areas shall be maintained at Level A.
48. That water conservation measures, including low volume toilets and the use of drought tolerant landscaping be used.
49. That the project shall comply with all Federal, State and City regulations for the National Pollution Discharge Elimination System (NPDES) (AMC§6-9). Under those NPDES regulations, this project is subject to provision C.3: New development and redevelopment regulations for storm water treatment. As such, a Storm Water Control Plan is required to be submitted simultaneously with project plans.
50. That the following requirements of the Federally mandated NPDES program be complied with, or as required by the City Engineer:

- a) That an application for a State of California "General Construction Activity Storm Water Permit" be submitted to the Regional Resources Control Board, and a copy of the Notice of Intent be submitted to the City, prior to any construction activity on this site;
- b) Limiting construction access routes and stabilizing access points;
- c) Stabilizing areas denuded due to construction) prior to wet season, October 1 through May 1) by using suitable practices including, but not limited to temporary or permanent seeding, mulching, sod stabilization, vegetative buffer strips, protection of trees, plastic covering, application of ground base on areas to be paved;
- d) Protecting adjacent properties by appropriate use of vegetative buffer strips, sediment barriers or filters, dikes or mulching, or by a combination of these measures or other appropriate measures;
- e) Delineating clearing limits, easements, setbacks, sensitive or critical areas and their buffers, trees and drainage courses by marking them in the field;
- f) Stabilizing and preventing erosion from temporary conveyance channels and outlets;
- g) Using sediment controls and filtration to remove sediment from water generated by dewatering;
- h) Using proper construction materials and construction waste storage, handling and disposal practices;
- i) Using proper vehicle and equipment cleaning, fueling and maintenance practices;
- j) Controlling and preventing discharge of all potential pollutants, including but not limited to, pesticides, petroleum products, nutrients, solid wastes, and construction chemicals, that occur on site during construction;
- k) Preparing a contingency plan in the event of unexpected rain or BMP failure including but not limited to, an immediate response plan, storing extra or alternative control materials on-site (Stakes, fences, hay bales), notifying the local agency, etc.;

- l) Education and Training – For developments with no property owner association or community association, practical information materials on good housekeeping of hazardous products, proper use and disposal for hazardous products, and prohibited discharge practices and materials must be provided, initially by the developer, to the first occupant/tenants, and thereafter by the City public education program.
  - m) Labeling Storm Drain Facilities – The phrase “No Dumping – Drains to River” must be embossed/stamped on all new storm drain inlets to alert the public to the destination of storm water and to prevent direct discharge of pollutants into the storm drain. Water courses should be similarly labeled by posting signs.
  - n) Runoff Control – to the extent practicable, maintain post-development peak runoff rate and average volume of runoff at levels that are similar to pre-development levels. The developer must design the proposed project accordingly.
- 51. All requirements of the Contra Costa County Health Department shall be met.
  - 52. That all requirements of the Contra Costa County Fire Protection District be met.
  - 53. That the applicant shall pay the Contra Costa Fire Protection District Fire Development fee in place at the time of permit issuance.
  - 54. The applicant shall comply with the following conditions provided by the Contra Costa County Fire District:
    - a) Provide emergency apparatus access roadways with all-weather driving surfaces of not less than 20-feet unobstructed width, and not less than 13 feet 6 inches of vertical clearance, to within 150 feet of travel distance to all portions of the exterior walls of every building. Access roadways shall not exceed 16% grade, shall have a minimum outside turning radius of 45 feet, and an inside turning radius of 25 feet, and must be capable of supporting the imposed loads of fire apparatus, i.e., 37 tons. (902.2) CFC, 22500.1 CVC
      - i) Access roadways of less than 28 feet unobstructed width shall have NO PARKING – FIRE LANE signs posted and curbs painted red with the words NO PARKING – FIRE LANE clearly marking.

- ii) Access roadways of 28 feet or greater, but less than 36 feet unobstructed width shall have NO PARKING – FIRE LANE signs posted, allowing for parking on one side only and curbs painted red with the words NO PARKING – FIRE LANE clearly marked.
  - iii) Access roadways 36 feet or greater of unobstructed width allowing for parking on both sides.
- b) Emergency apparatus access roadways and hydrants shall be installed, in service, and inspected by the Fire District prior to construction or combustible storage on site. (8704.1) CFC. Gravel roads are not considered all-weather roadways for emergency apparatus access. A minimum of the first life of asphalt concrete paving (with curb and gutter if proposed) shall be installed as the minimum subbase material and capable of supporting the designated gross vehicle weight specified above.
- c) Premises identification shall be provided. Such numbers shall contrast with their background and be a minimum of four inches high with ½ -inch stroke or larger as required to be readily visible from the street. (901.4.4) CFC.
- d) The developer shall provide traffic signal pre-emption systems (Opticom) on any new or modified traffic signals installed with the development. (21351) CVC.
- e) The developer shall provide fire hydrants of the East Bay type. Hydrant locations will be determined by this office upon submittal of three copies of complete site improvement plans or utility plans. (903.3) CFC. Hydrants shall be spaced a maximum of 300 feet on center such that every property frontage is within 150 feet of a hydrant. Hydrants located within the bulb of a cul-de-sac or in the last 100 feet of a dead end road shall be determined inaccessible for Fire District use.
- f) The developer shall provide an adequate and reliable water supply for fire protection with a minimum flow of 4,000 GPM. Required flow shall be delivered from not more than four hydrants flowing simultaneously for duration of 240 minutes while maintaining 20-pounds of residual pressure in the main. (903.3) CFC. This includes the reduction for the installation of automatic fire sprinklers.

- g) The developer shall submit three copies of site improvement plans indicating all existing or proposed utilities, turnaround and turnout areas, and fire apparatus access roadways for review and approval prior to construction. Indicate any water mains to be installed in any of the new aligned roadways. (902.2.2.1) CFC. This submittal shall be used to locate the above required hydrants.
- h) Flammable or combustible liquid storage tanks shall not be located on the site without first obtaining approval and necessary permits from the Fire District. (7901.3) CFC.
- i) The buildings as proposed shall be protected with an approved automatic fire sprinkler system complying with the 1999 edition of NFPA 13. Submit three sets of plans to this office for review and approval prior to installation. (1003.1) CFC.
- j) The developer shall submit three complete sets of plans and specifications of the subject project, including any of the following required built-in fire protection systems, to the Fire District for review and approval prior to construction to ensure compliance with minimum requirements related to fire and life safety. Plan review fees will be assessed at that time. (103.3.2.4) CFC, (106.3.2) CBC
  - i. Private underground fire service water mains
  - ii. Building construction plans
  - iii. Fire sprinklers
  - iv. Fire alarm
  - v. High pile storage
  - vi. Underground flammable/combustible liquid storage tanks
- k) Plan review and inspection fees shall be submitted at the time of plan review submittal. Checks may be made payable to Contra Costa County Fire Protection District (CCCYPD).
- l) Submit plans to: Contra Costa County Fire Protection District  
2010 Geary Road  
Pleasant Hill, CA 94523
- m) To schedule field inspections and tests call (925) 941-3323 prior to 3 p.m. a minimum of two working days in advance.

55. That the project shall comply with all mitigation measures identified in the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program.

### PROJECT SPECIFIC CONDITIONS

56. That the existing landscaping between the curb and sidewalk be trimmed and replanted in accordance with the original landscape plan. The applicant shall be responsible for maintenance of this area.
57. That no outdoor storage shall be allowed.
58. DELETED.
59. Fuel truck ingress shall be from the westernmost driveway on Verne Roberts Circle with egress out the southern driveway on Crow Court and vehicular ingress shall be through the northern Crow Court driveway with appropriate signage posted.
60. The existing curb inlet in the proposed southerly Crow Court driveway shall be modified as necessary (e.g. traffic-rated box and lid) to provide access for maintenance, as approved by the City Engineer.
61. Handicap access shall be provided in the public right-of-way at all driveways and a new City standard handicap ramp shall be constructed at the easterly corner of Crow Court and Verne Roberts Circle, as approved by the City Engineer.
62. A raised median shall not be allowed in the driveways.
63. The red curb along the project frontage shall be repainted per the City standard.
64. No outdoor sales or display of merchandise shall occur on the site without a supplemental administrative use permit, in accordance with the City of Antioch Municipal Code.
65. The light standards shall be limited to a maximum height of 25 feet and light shall not spill from the subject site onto adjacent roadways and properties.
66. The site (APN: 074-052-020) shall be paved with an all-weather surface and striped per the City of Antioch standard for temporary employee parking during construction of the Costco warehouse.
67. Traffic mitigation measures during the construction process will be required as approved by the City Engineer.
68. The applicant shall repair, slurry seal, and re-stripe Verne Roberts Circle as required by the City Engineer.

69. The applicant shall show all vehicular movements on the site plan with appropriate turning template radii, demonstrating that all vehicles can enter, exit, and successfully maneuver the site.
70. The commercial site entrances shall be street type with thirty-foot (30') radius curb returns or as approved by the City Engineer.
71. The project shall replace existing drainage grates along the Verne Roberts Circle frontage with standard bicycle grates as approved by the City Engineer.
72. A parallel detached sidewalk shall be constructed per City standards along Verne Roberts Circle.
73. The applicant shall remove and replace existing City standard sidewalk, curb, and gutter as necessary to provide for driveways, as approved by the City Engineer.
74. The existing utility vault and fire hydrant shall be relocated outside the westerly Verne Roberts Circle driveway.
75. The applicant shall pay all costs associated with vacating the existing 15' wide Landscape Maintenance Easement along the project frontage.
76. That the applicant shall merge the subject parcel (APN: 074-052-020) and the adjacent parcel (APN: 074-052-033) at the same time as the merge of the parcels with the Costco Warehouse.
77. The applicant shall pay all costs associated with vacating the existing 15' wide Landscape Maintenance Easement along the project frontage.
78. DELETED.
79. The public hours of operation shall be limited to 6:00 AM to 9:30 PM seven days a week and anything beyond these hours shall be subject to a supplemental use permit.
80. All hazardous materials shall be disposed of properly.
81. That the gas pump locations shall provide a minimum setback of 35' to any parking stall, in conformance with the Zoning Ordinance Land Use Regulations for Automobile Service Stations.
82. DELETED.

83. That canopy ceiling shall be textured and / or shall have a flat finish. Reflective materials shall not be incorporated on the canopy, canopy ceiling, or canopy columns.
84. That canopy lighting shall be mounted so that all portions of the fixture will be semi-recessed and shall be designed to prevent horizontal glare onto the public right-of-way to the satisfaction of the Community Development Director.
85. That no exterior fixtures with exposed florescent tubes shall be permitted.
86. That the canopy lighting luminance shall not exceed 60 foot candles. For the remainder of the site the maintained average horizontal luminance at grade shall not exceed 5 foot-candles. The applicant shall provide a revised lighting plan depicting conformance with this requirement with the construction plan submittal.
87. Roof mounted communication equipment, including satellite dishes, shall be completely screened by the parapet walls or free standing screen walls subject to Staff approval.
88. That automotive repair is not included as an approved use at this site. Any future auto repair use shall be subject to a separate use permit approval.
89. That the location of any proposed outdoor display racks and vending machines shall require use permit approval in conformance to the Zoning Ordinance Land Use Requirements for Automobile Service Stations.
90. Gas tank vent pipes shall be incorporated into the structures or concealed from public view, or as approved by the Director of Community Development.
91. That no flammable or combustible liquid storage tanks shall be located on the site prior to obtaining the necessary approvals and permits from the Contra Costa County Fire District.
92. That the subject property will be utilized as temporary parking for the Costco warehouse until it is no longer necessary, or as approved by the City Engineer.

\* \* \* \* \*



**I HEREBY CERTIFY** that the foregoing resolution was passed and adopted by the Planning Commission of the City of Antioch at a regular meeting thereof held on the 2<sup>nd</sup> day of May 2007.

AYES: Martin, Delgadillo, Henry, Brandt and Travers

NOES: None

ABSTAIN: Azevedo

ABSENT: Long

  
TINA WEHRMEISTER, SECRETARY TO THE  
PLANNING COMMISSION

# ATTACHMENT “D”

# **Fuel Facility Expansion**

## **Night Construction Narrative**

**Costco Wholesale**  
**2201 Verne Roberts Circle, Antioch, California 94509**  
**Costco Loc. No. 1002 / Our Job No. 6665**

**Prepared By**  
**Barghausen Consulting Engineers, Inc.**

**August 22, 2018**

### **Project Description**

Costco Wholesale is requesting a waiver to allow temporary night construction between the hours of 6:00 p.m. and 7:00 a.m. Monday through Friday and between 5:00 p.m. and 9:00 a.m. Saturday through Sunday as described in the City of Antioch Municipal Code. The project will consist of an expansion to the existing fueling facility canopy (3,360 square feet), the installation of four (4) new multi-product dispensers (MPDs), and associated site improvements.

The project site is zoned Planned Business Center (PBC), and is surrounded by commercial, office, and industrial uses on all sides with the nearest residence located approximately 2,300 feet to the east. The Costco warehouse and various commercial buildings are located between the project site and the residential properties and, therefore, no project sound impacts are anticipated for any residential properties. The closest commercial buildings, located across the railroad tracks, include large-scale retail businesses.

### **Purpose of Request**

Pursuant to Antioch Municipal Code Section 5-17.06, a waiver of the noise restrictions may be granted by the City for a specific project for a specific period of time.

Night construction for this project will be limited to approximately 65 days. Working at night benefits the area by reducing the overall construction timeframe, minimizing impacts to surrounding businesses and patrons during the day. Specifically, night construction allows for certain activities that require additional safety measures (e.g. overhead canopy welding) and testing procedures that would otherwise require an extended project schedule.

The use of heavy machinery is necessary for certain phases of construction, including demolition and installation of the canopy addition. Sound associated with these activities will occur during limited periods throughout the construction process. Night construction with heavy machinery is anticipated to generate between 54 and 72 decibels at approximately 400 feet from the project site which is similar to a normal conversation and city traffic, respectively. The attached Sound Emission Exhibit provides a conservative analysis of anticipated construction sound levels at noted distances from the project site. The Exhibit does not take into account potential noise-reducing factors such as surrounding ambient noise, topography, and buildings, including the existing Costco warehouse. The presence of these factors will reduce the sound levels further than what is shown in the Exhibit for surrounding properties.

**RECEIVED**

**SEP 19 2018**

**CITY OF ANTIOCH**  
**COMMUNITY DEVELOPMENT**

Costco's contractor is experienced with nighttime construction and will employ Best Management Practices to minimize sound levels at night. The allowance of night construction will not conflict with the City's intent to protect the peace, quiet, and comfort of the community or any neighborhood therein.

Based on the above information, we believe that the city is justified in allowing night time construction for the Costco fuel expansion project. We appreciate the City's desire to protect the local neighborhood from nighttime construction noise and share the mutual goal of minimizing any construction impacts of the project. We appreciate the City's consideration of this request and the enclosed supporting information.

## SOUND EMISSION LEVELS EXHIBIT

Equipment Description	Impact Device?	Spec. 721.560 L <sub>max</sub> @ 50 feet (dBA, slow)	Actual Measured L <sub>max</sub> @ 50 feet (dBA, slow) (Samples Averaged)	Calculated L <sub>max</sub> @ 100 feet dBA	Calculated L <sub>max</sub> @ 150 feet dBA	Calculated L <sub>max</sub> @ 200 feet dBA	Calculated L <sub>max</sub> @ 250 feet dBA	Calculated L <sub>max</sub> @ 300 feet dBA	Calculated L <sub>max</sub> @ 350 feet dBA	Calculated L <sub>max</sub> @ 400 feet dBA
Backhoe	No	80	78	73.98	70.46	67.96	66.02	64.44	63.1	61.94
Compressor (air)	No	80	78	73.98	70.46	67.96	66.02	64.44	63.1	61.94
Concrete Mixer Truck	No	85	79	78.98	75.46	72.96	71.02	69.44	68.1	66.94
Concrete Saw	No	90	90	83.98	80.46	77.96	76.02	74.44	73.1	71.94
Excavator	No	85	81	78.98	75.46	72.96	71.02	69.44	68.1	66.94
Generator <25KVA	No	70	73	66.98	63.46	60.96	59.02	57.44	56.1	54.94
Jackhammer	Yes	85	89	82.98	79.46	76.96	75.02	73.44	72.1	70.94
Mounted Impact Hammer (hoe ram)	Yes	90	90	83.98	80.46	77.96	76.02	74.44	73.1	71.94
Tractor	No	84	NA	77.98	74.46	71.96	70.02	68.44	67.1	65.94
Welder/Torch	No	73	74	67.98	64.46	61.96	60.02	58.44	57.1	55.94

Base noise levels published by the U.S. Department of Transportation, The Federal Highway Administration



Costco Fuel Facility Expansion  
2201 Verne Roberts Circle, Antioch, CA 94509  
Costco Loc. 1002/Our Job No. 6665

Automotive Electronic  
Repair Shop

Misc. Office

Insurance  
Office

Energy  
Contractor

Government  
Office

Security  
Office

Steel Fabricator/Boat Repair  
Shop/Garage Store

Electrical  
Store

Construction  
Company

Church

Costco  
Warehouse

Big Box Retail

Big Box Retail

Retail

D4

400  
344  
38A

300  
54.74  
38A

200  
57.73  
38A

100  
74.92  
38A



**STAFF REPORT TO THE ZONING ADMINISTRATOR  
FOR CONSIDERATION AT THE MEETING OF NOVEMBER 8, 2018**

**Prepared by:** Alexis Morris, Planning Manager

**Date:** November 2, 2018

**Subject:** Empire Shopping Center Wireless Facility (UP-18-16)

**RECOMMENDATION**

It is recommended that the Zoning Administrator **APPROVE** a use permit and design review of a new wireless facility at 5887 Lone Tree Way, subject to the conditions contained in the attached resolution.

**REQUEST**

Ridge Communication, on behalf of Verizon, requests approval of a use permit and design review to install a new wireless antenna facility located on the parapet of an existing building located in the Empire Shopping Center. The subject property is located at 5887 Lone Tree Way (**APN 056-390-007**).



## **ENVIRONMENTAL**

The project is Categorically Exempt from the provisions of CEQA, pursuant to section 15303 – New Construction or Conversion of Small Structures. This section of CEQA exempts projects that involve construction of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure.

## **ANALYSIS**

### **Issue #1: Project Overview**

The proposed Verizon Wireless antenna installation is a stealth facility with rooftop panel antennas camouflaged in four decorative corbels on the parapet of the building. The existing corbels on the sides of the parapet will be replaced with wider corbels that will conceal the antennas within. The corbels will be painted a cream color (“Napery”) to match the existing corbels. Supporting equipment will be located on the roof, inside the building, and in two equipment cabinets located in the landscaped area at the base of the building. The equipment cabinets are located behind an existing transformer in the landscaped area and are approximately six feet high. The cabinets will be painted dark green (“Thunderous”) to match the existing equipment cabinets in the area. Staff has included a condition of approval in the attached resolution specifying that none of the proposed roof mounted equipment should be visible from the right of way.

### **Issue #2: General Plan, Zoning Consistency, and Land Use**

The General Plan designation of the project site is Regional Retail and the zoning is Planned Development (PD).

The surrounding land uses and zoning designations are noted below.

North:	JC Penney / PD
South:	Lone Tree Way / City of Brentwood
East:	Empire Ave. / City of Brentwood
West:	Slatten Ranch Shopping Center / PD

### **Issue #3: Legal Background – Telecommunications Act**

Federal law places many restrictions on local control over telecommunications facilities. Under federal law, localities may not (1) explicitly or effectively prohibit personal wireless services; (2) unreasonably discriminate among functionally equivalent personal wireless service providers; or (3) regulate environmental effects from radio frequency (RF) emissions to the extent that such emissions conform to all applicable FCC regulations.<sup>1</sup> In addition, localities must act on permit applications within a reasonable time, issue

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<sup>1</sup> See 47 U.S.C. §§ 332(c)(7)(B)(i), (iv).



written denials, include reasons for any denial contemporaneously with any written denial and base all denials on substantial evidence in the written record.<sup>2</sup>

### Effective Prohibition Framework

A single permit denial can effectively prohibit personal wireless services when the applicant shows that (1) a “significant gap” exists in the applicant’s own services and (2) the applicant proposed the “least intrusive means” to mitigate that gap.<sup>3</sup> No “bright line” test exists to define a “significant” gap in services, and although not all gaps amount to a significant one, district courts in the Ninth Circuit and others from outside this Circuit indicate that the standard may be relatively low.<sup>4</sup> In contrast, the “least intrusive means” has a more concrete definition. The least intrusive means refers to a site location and design that most closely conforms to the local values expressed in the local law that would otherwise support a denial.<sup>5</sup>

Effective prohibition analysis applies only when substantial evidence exists to support a denial.<sup>6</sup> For example, in a situation where an applicant requires a 35-foot antenna in a 30-foot zone to close a significant gap, the least intrusive means would be a 35-foot-high antenna and federal law would require approval even though the local code would authorize a denial for a project over 30 feet high. The least intrusive means might also be multiple lower sites rather than fewer taller sites.<sup>7</sup>

### Unreasonable Discrimination Among Functionally Equivalent Service Providers

Federal law prohibits “unreasonable” discrimination among providers with “functionally equivalent services.”<sup>8</sup> This standard permits reasonable discrimination and localities retain “flexibility to treat facilities that create different visual, aesthetic, or safety concerns differently to the extent permitted under generally applicable zoning requirements, even if those facilities provide functionally equivalent services.”<sup>9</sup> To prevail on this claim, carriers must show that the local government discriminated between two similar service providers who submitted two similar proposals in two similar contexts.<sup>10</sup>

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<sup>2</sup> See 47 U.S.C. §§ 332(c)(7)(B)(ii), (iii); see also *T-Mobile South LLC v. City of Roswell*, 135 S.Ct. 808, 816 (2015).

<sup>3</sup> See *American Tower Corp. v. City of San Diego*, 763 F.3d 1035, 1056 (9th Cir. 2014) (citing *Metro PCS, Inc. v. City and County of San Francisco*, 400 F.3d 715, 733 (9th Cir. 2005)).

<sup>4</sup> See e.g., *MetroPCS, Inc.*, 400 F.3d at 733; *Orange Cnty.-Poughkeepsie Ltd. P’ship v. Town of E. Fishkill*, 84 F. Supp. 3d 274, 297 (S.D.N.Y. 2015); *T-Mobile West Corp. v. City of Agoura Hills*, No. CV 09-9077 DSF (PjWx), 2010 WL 5313398, \*8–\*9 (C.D. Cal. Dec. 20, 2010); *MetroPCS New York, LLC v. Village of East Hills*, 764 F. Supp. 2d 441, 454–55 (E.D.N.Y. 2011); *T-Mobile Northeast LLC v. City of Lowell*, No. 11-11551-NMG, 2012 U.S. Dist. LEXIS 180210, \*10 (D. Mass. Nov. 27 2012); *USCOC of New Hampshire RSA No. 2 v. Town of Dunbarton*, No. Civ.04–CV–304–JD, 2005 WL 906354, \*2 (D.N.H. Apr. 20, 2005). Many courts also appear to simply bypass the issue altogether and dive straight into the least intrusive means issues. See, e.g., *American Tower Corp.*, 763 F.3d at 1056; *T-Mobile West Corp. v. City of Huntington Beach*, No. CV 10–2835 CAS (Ex), 2012 WL 4867775, \*6 (C.D. Cal. Oct. 10, 2012).

<sup>5</sup> See *American Tower Corp.*, 763 F.3d at 1056–1057.

<sup>6</sup> See *id.*

<sup>7</sup> See, e.g., *id.*; *T-Mobile USA, Inc. v. City of Anacortes*, 572 F.3d 987, 998 (9th Cir. 2009).

<sup>8</sup> See 47 U.S.C. § 332(c)(7)(B)(i)(I).

<sup>9</sup> See *MetroPCS, Inc. v. City and Cnty. of San Francisco*, 259 F. Supp. 2d 1004, 1011 (N.D. Cal. 2003) (quoting H.R. Conf. Rep. No. 104–458, 208).

<sup>10</sup> See *In re Cell Tower Litigation*, 807 F. Supp. 2d 928, 936 (S.D. Cal. 2011) (finding no unreasonable discrimination in different regulations applied to municipal towers primarily for emergency radio services

### RF Emissions Compliance Regulations

The FCC regulates RF emissions, and establishes comprehensive rules for maximum permissible exposure levels (the “*FCC Guidelines*”).<sup>11</sup> State and local governments cannot (1) regulate wireless facilities based on environmental effects from RF emissions when the emissions conform to the applicable *FCC Guidelines* or (2) establish their own RF exposure standards—whether more strict, more lenient or even the same.<sup>12</sup>

However, the FCC permits localities to require an applicant to demonstrate planned compliance with the *FCC Guidelines* as a prerequisite for permit approval.<sup>13</sup> Federal guidance encourages localities and applicants to cooperatively develop a means for planned compliance demonstrations that balances the legitimate local interest in compliance with the national standards and the applicant’s interest in an efficient and predictable process.<sup>14</sup> In addition, the FCC recommends that localities use the *Local Government Official’s Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance* (the “*Local Official’s Guide*”) as an appropriate tool for compliance demonstrations.<sup>15</sup>

In this case, the project has been evaluated by Verizon’s consultants who independently concluded that the proposed project would be compliant with the *FCC Guidelines*. Accordingly, staff recommends that the Zoning Administrator conclude that it has no authority to regulate, condition or deny this application on the basis of environmental effects of RF emissions.

### The “Shot Clock” Rules

Localities must act within a “reasonable time” after it receives a duly filed application for a wireless project.<sup>16</sup> The FCC interprets a reasonable time to mean 90 days for co-locations and 150 days for all other applications, after which time the applicant may seek expedited judicial review within the first 30 days after a final denial or failure to act. In

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than to privately held towers primarily for commercial radio services); *Cingular Wireless, LLC v. Thurston Cnty.*, 425 F. Supp. 2d 1193, 1194 (W.D. Wash. 2006) (finding unreasonable discrimination because the County denied Cingular’s permit but approved ten others for its competitors which were all taller, with less concealment and in less favored locations); *Voice Stream PCS I, LLC v. City of Hillsboro*, 301 F. Supp. 2d 1251, 1262 (D.Or. 2004) (finding no unreasonable discrimination where the only similarity between two proposals was a common zoning designation); *MetroPCS*, 259 F. Supp. 2d at 1012 (holding that discrimination based on traditional zoning regulations is not unreasonable, even when the record contains evidence of discriminatory intent); *AT&T Wireless Servs. of Cal. LLC v. City of Carlsbad*, 308 F. Supp. 2d 1148, 1166–1167 (S.D. Cal. 2003) (finding unreasonable discrimination where City approved a “stealth site” in a residential area for one carrier but denied a similar proposal for another).

<sup>11</sup> See 47 U.S.C. § 332(c)(7)(B)(iv); see also 47 C.F.R. § 1.1307 *et seq.*; FCC Office of Engineering and Technology, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*, OET Bulletin 65, ed. 97-01 (1997).

<sup>12</sup> See 47 U.S.C. § 332(c)(7)(B)(iv).

<sup>13</sup> See *In re Procedures for Reviewing Requests for Relief from State and Local Regulations Pursuant to Section 332(c)(7)(B)(iv) of the Communications Act of 1934*, *Report and Order*, 15 FCC Rcd. 22821, 22828–22829 (Nov. 13, 2000) (declining to adopt rules that limit demonstrations of compliance).

<sup>14</sup> See *id.*

<sup>15</sup> See *id.*

<sup>16</sup> See 47 U.S.C. 332(c)(7)(B)(ii).

addition, localities must act on projects covered under 47 U.S.C. § 1455(a) within 60 days or else the application is automatically approved.<sup>17</sup>

In California, failure to act within the presumptively reasonable time can result in a deemed-approval for new and substantially changed wireless facilities not covered under § 1455(a). California Government Code § 65964.1 automatically deems an application for a new wireless site or substantial modification to an existing wireless site when (1) the city or county fails to approve or disapprove the application within the applicable shot clock period, (2) the applicant has provided all public notices required for the application and (3) the applicant provides written notice to the city or county that it considers the application deemed approved.

These timeframes may be “tolled” (i.e., paused) under certain circumstances. However, after an application has been deemed complete, the shot clock can be tolled only by mutual agreement between the local government and the applicant. These federal regulations are in addition to the ordinary Permit Streamlining Act requirements under state law.

## **ATTACHMENTS**

- A Resolution
- B Applicant’s Project Description
- C Applicant’s RF Analysis
- D Photo Simulations
- E Project Plans

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<sup>17</sup> See In the Matter of Petition for Declaratory Ruling to Clarify Provisions of Section 332(C)(7)(B) to Ensure Timely Siting Review and to Preempt under Section 253 State and Local Ordinances that Classify All Wireless Siting Proposals as Requiring a Variance, *Declaratory Ruling*, 24 FCC Rcd. 13994, 14012 (Nov. 18, 2009).

# ATTACHMENT “A”

**CITY OF ANTIOCH ZONING ADMINISTRATOR  
RESOLUTION NO. 2018-\*\***

**RESOLUTION OF THE CITY OF ANTIOCH ZONING ADMINISTRATOR  
APPROVING A USE PERMIT (UP-18-16) FOR FOUR VERIZON WIRELESS  
ANTENNAS AT 5887 LONE TREE WAY**

**WHEREAS**, Ridge Communication, on behalf of Verizon, requests approval of a use permit and design review to install a new wireless antenna facility consisting of four concealed antennas and associated equipment. The subject property is located at 5887 Lone Tree Way (APN 056-390-007); and,

**WHEREAS**, this project is Categorically Exempt from the provisions of CEQA, pursuant to section 15303; and,

**WHEREAS**, the Zoning Administrator duly gave notice of public hearing as required by law; and,

**WHEREAS**, the Zoning Administrator on November 8, 2018, duly held a public hearing and received and considered evidence, both oral and documentary; and,

**WHEREAS**, the Zoning Administrator does determine:

1. The granting of such Use Permit will not be detrimental to the public health or welfare or injurious to the property or improvements in such zone or vicinity.

The proposed concealed wireless antennas will not be detrimental to the surrounding property or improvements because based upon the conditions imposed, the proposed use will not create adverse impacts to the surrounding businesses and residents. The antennas mounted to the parapet will be camouflaged by matching existing architectural features and paint colors on the building and concealing any roof-mounted equipment from public view. Ground mounted equipment cabinets will be painted dark green to match adjacent equipment cabinets and to better blend in with the landscaping. The subject site will benefit public welfare by providing improved wireless services to the area, such as mobile telephone services, emergency 911 services, data transfer, electronic mail, internet and web browsing, as well as video streaming for Verizon customers. In addition, the proposed facility demonstrates planned compliance with applicable Federal Communications Commission regulations for exposure to radio frequency emissions.

2. The use applied at the location indicated is properly one for which a Use Permit is authorized.

The site is located in a Planned Development (PD) zoning district. The placement of telecommunications facilities and equipment are allowed upon approval of a use permit.

3. That the site for the proposed use is adequate in size and shape to accommodate such use, and all parking, and other features required.

The proposed wireless antennas will be placed on an existing building at a developed site and will require minimal improvements to the site. The proposed use is an unattended wireless facility that will not require additional parking.

4. That the site abuts streets and highways adequate in width and pavement type to carry the kind of traffic generated by the proposed use.

It is anticipated that an unattended wireless facility will generate very little traffic and would only result in the occasional maintenance of the equipment. The project site is currently developed and is located at the corner of Lone Tree Way and Empire Avenue, which are adequate in width and pavement type to carry the minimal traffic generated by the proposed use.

5. The granting of such Use Permit will not adversely affect the comprehensive General Plan.

The use will not adversely affect the comprehensive General Plan because the project is consistent with the General Plan designation of Regional Retail.

**NOW THEREFORE BE IT RESOLVED**, the Zoning Administrator of the City of Antioch does hereby **APPROVE** UP-18-16, to allow four concealed wireless antennas and associated equipment to be installed at 5887 Lone Tree Way (APN 056-390-007), subject to the following conditions.

**A. GENERAL CONDITIONS**

1. The project shall comply with the Antioch Municipal Code. All construction shall conform to the requirements of the California Building Code and City of Antioch standards.
2. The applicant shall defend, indemnify, and hold harmless the City in any action brought by a third party to challenge the land use entitlement. In addition, if there is any referendum or other election action to contest or overturn these approvals, the applicant shall either withdraw the application or pay all City costs for such an election.

3. The project shall be implemented as indicated on the application form and accompanying materials provided to the City and in compliance with the Antioch Municipal Code, or as amended by the Zoning Administrator.
4. No building permit will be issued unless the plan conforms to the project description and materials as approved by the Zoning Administrator and the standards of the City.
5. This approval expires two years from the date of approval (expires November 8, 2020), unless an extension has been approved by the Zoning Administrator. Requests for extensions must be received in writing with the appropriate fees prior to the expiration of this approval. No more than one, one-year extension shall be granted.
6. No permits or approvals, whether discretionary or mandatory, shall be considered if the applicant is not current on fees, reimbursement payments, and any other payments that are due.

**B. FIRE REQUIREMENTS**

1. All requirements of the Contra Costa County Fire Protection District shall be met.

**C. FEES**

1. The applicant shall pay all fees as required by the City Council.
2. The applicant shall pay all required fees at the time of building permit issuance.

**D. PROPERTY MAINTENANCE**

1. No illegal signs, pennants, banners, balloons, flags, or streamers shall be used on this site at any time.
2. The site shall be kept clean of all debris (boxes, junk, garbage, etc.) at all times.
3. No signs shall be installed on this site without prior City approval.

**E. PROJECT SPECIFIC REQUIREMENTS**

1. The use permit applies to the construction of an unmanned telecommunications facility consisting of four concealed antennas mounted on the parapet of the building, 8 RRU units, 8 diplexer units, 4 surge suppressors and two equipment cabinets located at ground level as described in the project description and plans submitted to the City of Antioch on August 15, 2018.

2. All roof-mounted mechanical equipment shall be screened from the adjacent public right of way consistent with the requirements of AMC §9-5.1301. The permittee shall submit a line of sight study with the building permit application demonstrating that all roof-mounted mechanical equipment is not visible from the adjacent public right of way.
3. The permittee shall paint, color or finish all equipment mounted to the exterior of the building, including without limitation all antennas, remote radio units, DC power equipment, cables, wires, jumpers, connectors, mounts, arms, brackets and other support equipment with paint that matches the existing building colors, such as “Napery”. The permittee shall maintain all such paint in good condition at all times.
4. The permittee shall paint, color or finish the equipment cabinets with a dark green color, such as “Thunderous”, that blends with the surrounding environment and adjacent equipment cabinets. The permittee shall maintain all such paint in good condition and free of graffiti at all times.
5. Additional equipment or antennas, or a change in antennas shall be subject to approval of the Community Development Director.
6. The permittee shall maintain all of applicant’s facilities free from all graffiti and damage caused by vandalism, accidents, etc. Said graffiti abatement and/or maintenance shall be performed within two (2) business days of first being reported, where reasonably possible.
7. The permittee acknowledges that the City specifically includes conditions of approval related to (a) painting, coloring or finishing the equipment to match the building and adjacent equipment cabinets; (b) concealing cables and mounting brackets. It is intended that this facility be concealed to the maximum extent possible, and that any future modifications to the permittee’s wireless facility must maintain or improve upon all concealment elements.
8. Before the permittee submits any applications for construction, encroachment, excavation or other required permits in connection with this permit, the permittee must incorporate a true and correct copy of this permit, all conditions associated with this permit and any approved photo simulations into the project plans (collectively, the “**Approved Plans**”). The permittee must construct, install and operate the wireless facility in substantial compliance with the Approved Plans as determined by the Community Development Director (Director) or the Director’s designee. Any substantial or material alterations, modifications or other changes to the Approved Plans, whether requested by the permittee or required by other departments or public agencies with jurisdiction over the wireless facility, must be submitted in a written request subject to the Director’s prior review and approval, who may refer the request to the original approval authority if the Director finds



that the requested alteration, modification or other change substantially deviates from the Approved Plans or implicates a significant or substantial land-use concern.

9. The permittee shall mark roof top RF boundary lines and shall install and at all times maintain in good condition an "RF Notice" sign at the roof access hatch, at the roof top RF boundary lines, and on screens in front of the antennas as recommended on page 3 of the RF analysis prepared by Hammett & Edison, Inc. on June 4, 2018 and submitted to the City on August 15, 2018. The signs required in this condition must be placed in a location where they are clearly visible to a person approaching the access point(s) whether in the open or closed positions.
10. The permittee shall ensure that all signage complies with FCC OET Bulletin 65 and ANSI C95.2 for color, symbol, and content conventions. All such signage shall at all times provide a working local or toll-free telephone number to its network operations center, and such telephone number shall be able to reach a live person who can exert transmitter shut-down control over this site as required by the FCC.

\* \* \* \* \*

**I HEREBY CERTIFY** that the foregoing resolution was passed and adopted by the Zoning Administrator of the City of Antioch at a regular meeting thereof held on the 8th day of November, 2018.

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FORREST EBBS  
ZONING ADMINISTRATOR

# ATTACHMENT “B”



**RECEIVED**

AUG 15 2018

**CITY OF ANTIOCH  
COMMUNITY DEVELOPMENT**

## **Verizon Wireless**

### **PROJECT DESCRIPTION**

Verizon Proposed Wireless Facility  
5887 Lone Tree Way, Antioch APN: 056-390-007-5)  
Empire Shopping SC1 (279586)

### **SITE DESCRIPTION**

The proposed Verizon Wireless (VzW) antenna site is at 5887 Lone Tree Way, Antioch, which is the Empire Shopping Center, at the corner of Empire Avenue. The site is part of a PD – Planned Development zone under which the large upscale shopping center was permitted and requires a Design Review to alter the PD Permit and allow the proposed antenna site through the authority of the City of Antioch.

This area of Lone Tree Way east of Hwy 4 is a burgeoning commercial corridor on the border of Antioch and Brentwood at Empire Avenue. The commercial setting in the PD District provides the appropriate setting for the proposed Verizon site. Residential is set away in Brentwood, southeast across Lone Tree Way in "Amber Park" and "Visions at Brentwood" and east on Lone Tree Way at the Brentwood "Rose Garden" area.

The facility is proposed as stealth site with panel antennas camouflaged in the four (4) corner corbels of the decorative façade on either side of the building. The equipment is proposed in behind the building along with the PG&E transformer and building water mains in a utility area, which is fringed by hedges to provide screening and buffering of the equipment and facilities. VzW will paint their cabinet's green to blend into the area that is landscaped along the fringe. Utilities are close by and will be undergrounded to the site. Hybrid cables will run to the building from the adjacent equipment area to tie the antennas to the equipment. The site will be largely invisible to casual public observation.

The site will be unmanned and does not require water or septic services. The site is self-monitoring and connects directly to the Verizon "Network Operations Center" (NOC) in the event of an equipment malfunction, or security breach. After construction, the site will typically be visited intermittently for maintenance, and to check and calibrate equipment. Sufficient on-site parking exists to provide for Verizon's service (and construction vehicles). The site will not cause an increase in traffic congestion to the local area. The site will be operated within all pertinent FCC standards, and will be constructed in compliance with all applicable Federal, State, and local building codes.

### **ZONING & VISUAL IMPACT**

The proposed installation will consist of rooftop panel antennas hidden inside the corner corbels of the decorative façade to greatly mitigate any visual impact and create compatibility to the existing location.

Access to the rooftop is restricted to provide security from casual intrusion, and the facility will not impair the safety of the public in any way.

The rooftop panel antennas will be camouflaged and hidden inside paint matched and textured corbels. It is worth noting that the site is substantially removed and will not impair the nearby residential. The proposed installation will not be detrimental to the aesthetics of the building or the nearby community, nor will the proposed facility be harmful to the character of the community. The proposed facility will not impair the commercial character of Empire Shopping Center, or impede the public along Empire Avenue or Lone Tree Way in any fashion.

This design will be effectively visually integrated and aesthetically compatible to the existing area. The compound's location is substantially offset from the residential areas to the east and south in the neighboring City of Brentwood. This project will not create visual impact to the surrounding area, nor convene a public nuisance, nor degrade the character of the surrounding area. This proposal is set forth in an unobtrusive fashion and is consistent with other approved wireless facilities located in the City of Antioch (and nearby Brentwood).

## **CONCLUSION**

The establishment of this telecommunications facility will not be detrimental to the public health, safety or welfare of the area, or be materially injurious to the general welfare of the City of Antioch. The proposed facility will not place any burden on traffic, nor will it result in objectionable levels of noise, odor, dust, or dirt.

The proposed facility will be a link to an important communication infrastructure and will provide vital communications to protect and enhance the general public's health, safety and welfare, and may assist emergency personnel. Subscribers, individuals and businesses alike, will be able to access wireless communications to expand their business, provide personal convenience, and strengthen personal safety by communicating on demand with government, businesses, family and friends. Verizon's proposed site will also provide a valuable communications link in Antioch along Lone Tree Way near Empire Avenue and into Brentwood.

In addition, the RF energy to be emitted by this facility will be well within the parameters established by the FCC. All Verizon sites are administered by the rules and directives of the FCC, which mandates their compliance with the "Health & Safety" guidelines of the FCC under the dictates of Verizon's federal license. The proposed Verizon facility will not interfere with any police, fire or emergency communications, nearby televisions and radios, or other consumer appliances. The FCC controls and regulates the operation of all the telecommunication equipment and devices to be used at this proposed facility. The proposed facility will conform to all FCC rules, standards and regulations.

Please confirm the proposed Verizon wireless antenna facility's conformance in meeting the criteria and finding for an approval of the Design Review application as pertaining to the requirements of the City of Antioch Planning Ordinance. As such, Verizon respectfully requests that their application for a wireless antenna facility at The Empire Shopping Center, 5887 Lone tree Way, Antioch be approved by the City of Antioch.

# ATTACHMENT “C”

**Proposed Base Station (Site No. 279856 "Empire Shopping Center SC1")  
Verizon Wireless • 5887 Lone Tree Way • Antioch, California**

**RECEIVED**

AUG 15 2018

**Statement of Hammett & Edison, Inc., Consulting Engineers**

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 279856 "Empire Shopping Center SC1") proposed to be located at 5887 Lone Tree Way in Antioch, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

**Executive Summary**

Verizon proposes to install directional panel antennas above the roof of the commercial retail building located at 5887 Lone Tree Way in Antioch. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

**Prevailing Exposure Standards**

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. A summary of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5–80 GHz	5.00 mW/cm <sup>2</sup>	1.00 mW/cm <sup>2</sup>
WiFi (and unlicensed uses)	2–6	5.00	1.00
BRS (Broadband Radio)	2,600 MHz	5.00	1.00
WCS (Wireless Communication)	2,300	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

**General Facility Requirements**

Base stations typically consist of two distinct parts: the electronic transceivers (also called "radios" or "channels") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A small antenna for reception of GPS signals is also required, mounted with a clear view of the sky.



**HAMMETT & EDISON, INC.**  
CONSULTING ENGINEERS  
SAN FRANCISCO

K3WW  
Page 1 of 4

**C1**

**Proposed Base Station (Site No. 279856 "Empire Shopping Center SC1")  
Verizon Wireless • 5887 Lone Tree Way • Antioch, California**

Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. This means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

### **Computer Modeling Method**

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

### **Site and Facility Description**

Based upon information provided by Verizon, including zoning drawings by Streamline Engineering and Design, Inc., dated April 30, 2018, it is proposed to install four Amphenol Model CUUX063X03F directional panel antennas within four view screen enclosures, configured to resemble existing architectural features, to be installed on the corners of the upper façade above the roof of the single-story commercial retail building located at 5887 Lone Tree Way in Antioch. The antennas would employ no downtilt, would be mounted at an effective height of about 27½ feet above ground, 11 feet above the roof, and would be oriented toward 50°T, 140°T, 230°T, and 320°T, to provide service in all directions. The maximum effective radiated power in any direction would be 4,040 watts, representing simultaneous operation at 980 watts for AWS, 980 watts for PCS, 1,100 watts for cellular, and 980 watts for 700 MHz service. There are reported no other wireless telecommunications base stations at the site or nearby.

### **Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.33 mW/cm<sup>2</sup>, which is 52% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby building\* is 3.7% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operation. Levels

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\* Occurring at the residence located at least 180 feet away, based on photographs from Google Maps.



**Proposed Base Station (Site No. 279856 "Empire Shopping Center SC1")  
Verizon Wireless • 5887 Lone Tree Way • Antioch, California**

may exceed the applicable public exposure limit on the roof of the subject building, in front of the antennas.

**Recommended Mitigation Measures**

It is recommended that the roof access hatch be kept locked, so that the Verizon antennas are not accessible to unauthorized persons. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training, to include review of personal monitor use and lockout/tagout procedures, be provided to all authorized personnel who have access to the roof, including employees and contractors of Verizon and of the property owner. No access within 21 feet directly in front of the Verizon antennas themselves, such as might occur during certain maintenance activities, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that the boundary lines be marked on the roof with blue paint to identify areas within which exposure levels are calculated to exceed the public FCC limit, as shown in Figure 3. It is recommended that explanatory signs<sup>†</sup> be posted at the roof access hatch, at the boundary lines, and on the screens in front of the antennas, readily visible from any angle of approach to persons who might need to work within that distance.

**Conclusion**

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the base station proposed by Verizon Wireless at 5887 Lone Tree Way in Antioch, California, can comply with the prevailing standards for limiting human exposure to radio frequency energy and, therefore, need not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations. Locking the roof access hatch is recommended to establish compliance with public exposure limits; training authorized personnel, marking roof areas, and posting explanatory signs are recommended to establish compliance with occupational exposure limits.

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<sup>†</sup> Signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (e.g., a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required.





**Proposed Base Station (Site No. 279856 "Empire Shopping Center SC1")  
Verizon Wireless • 5887 Lone Tree Way • Antioch, California**

**Authorship**

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2019. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.



*N. Olij*  
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Neil J. Olij, P.E.  
707/996-5200

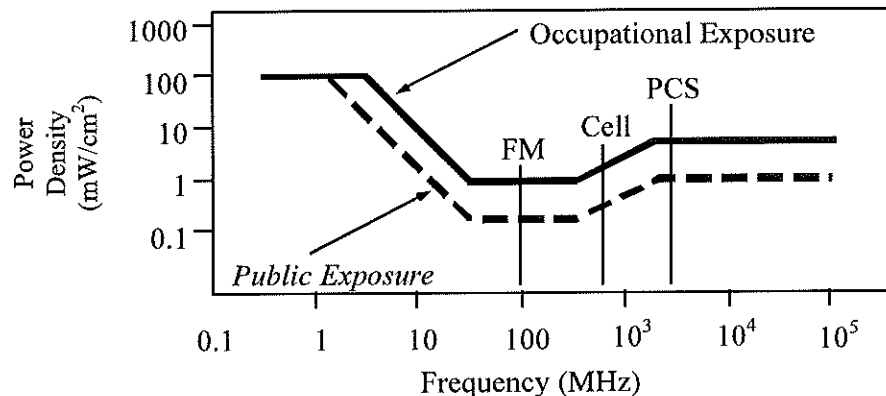
June 4, 2018

## FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency Applicable Range (MHz)	Electromagnetic Fields ( <i>f</i> is frequency of emission in MHz)					
	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm <sup>2</sup> )	
0.3 – 1.34	614	<i>614</i>	1.63	<i>1.63</i>	100	<i>100</i>
1.34 – 3.0	614	<i>823.8/f</i>	1.63	<i>2.19/f</i>	100	<i>180/f<sup>2</sup></i>
3.0 – 30	1842/f	<i>823.8/f</i>	4.89/f	<i>2.19/f</i>	900/f <sup>2</sup>	<i>180/f<sup>2</sup></i>
30 – 300	61.4	<i>27.5</i>	0.163	<i>0.0729</i>	1.0	<i>0.2</i>
300 – 1,500	3.54√ <i>f</i>	<i>1.59√f</i>	√ <i>f</i> /106	<i>√f/238</i>	<i>f/300</i>	<i>f/1500</i>
1,500 – 100,000	137	<i>61.4</i>	0.364	<i>0.163</i>	5.0	<i>1.0</i>



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.



**HAMMETT & EDISON, INC.**  
CONSULTING ENGINEERS  
SAN FRANCISCO

FCC Guidelines  
Figure 1

## RFR.CALC™ Calculation Methodology

### Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

#### Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density  $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$ , in mW/cm<sup>2</sup>,

and for an aperture antenna, maximum power density  $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$ , in mW/cm<sup>2</sup>,

- where  $\theta_{BW}$  = half-power beamwidth of the antenna, in degrees, and  
 $P_{net}$  = net power input to the antenna, in watts,  
 $D$  = distance from antenna, in meters,  
 $h$  = aperture height of the antenna, in meters, and  
 $\eta$  = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

#### Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

$$\text{power density } S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}, \text{ in mW/cm}^2,$$

- where ERP = total ERP (all polarizations), in kilowatts,  
RFF = relative field factor at the direction to the actual point of calculation, and  
D = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.

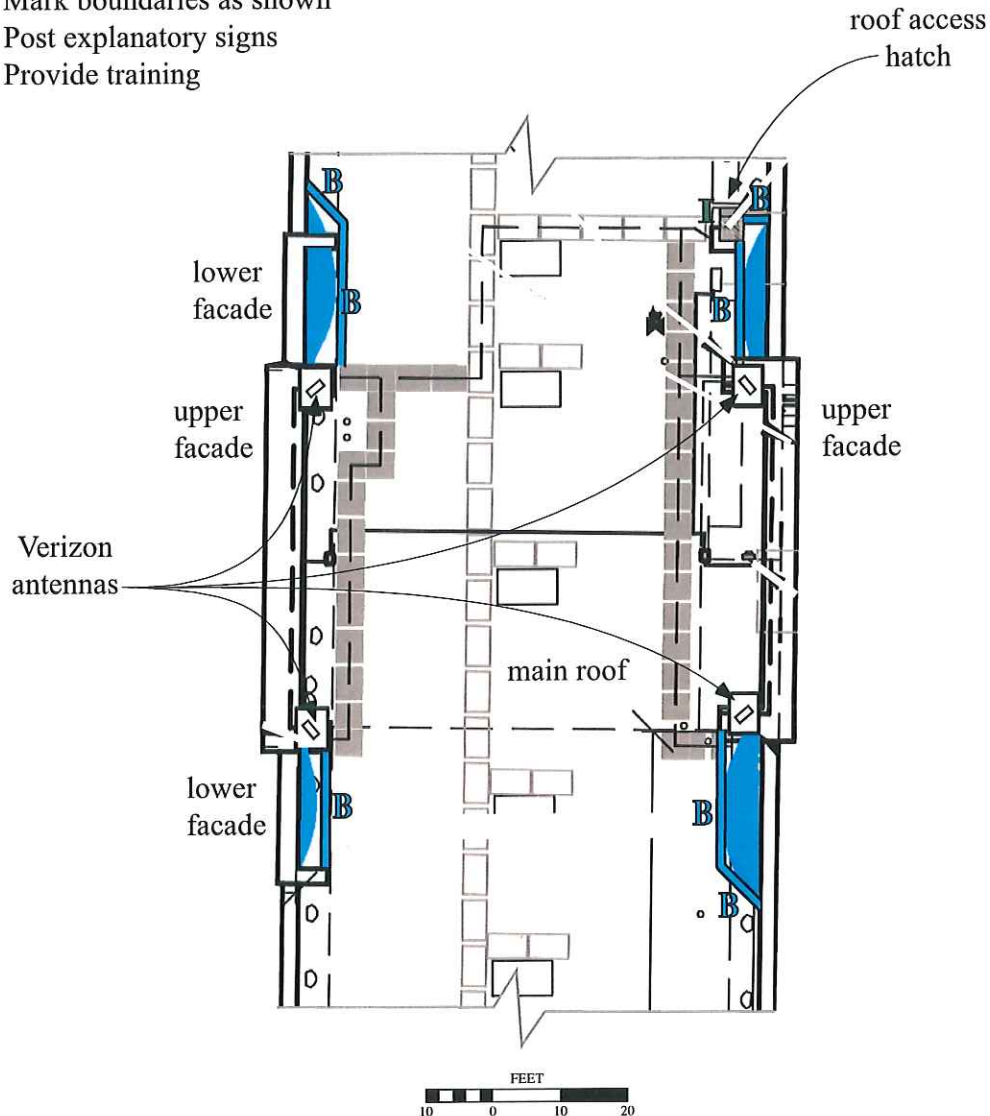


**Proposed Base Station (Site No. 279856 "Empire Shopping Center SC1")**  
**Verizon Wireless • 5887 Lone Tree Way • Antioch, California**

**Calculated RF Exposure Levels on Roof**

**Recommended Mitigation Measures**

- Lock roof access hatch
- Mark boundaries as shown
- Post explanatory signs
- Provide training



Notes: See text.

Base drawing from Streamline Engineering and Design, Inc., dated April 30, 2018.

Calculations performed according to OET Bulletin 65, August 1997.

**Legend:**

	Less Than Public	Exceeds Public	Exceeds Occupational	Exceeds 10x Occupational
Shaded color	blank			
Boundary marking	N/A			
Sign type	<b>I</b> - Green INFORMATION	<b>B</b> - Blue NOTICE	<b>Y</b> - Yellow CAUTION	<b>O</b> - Orange WARNING



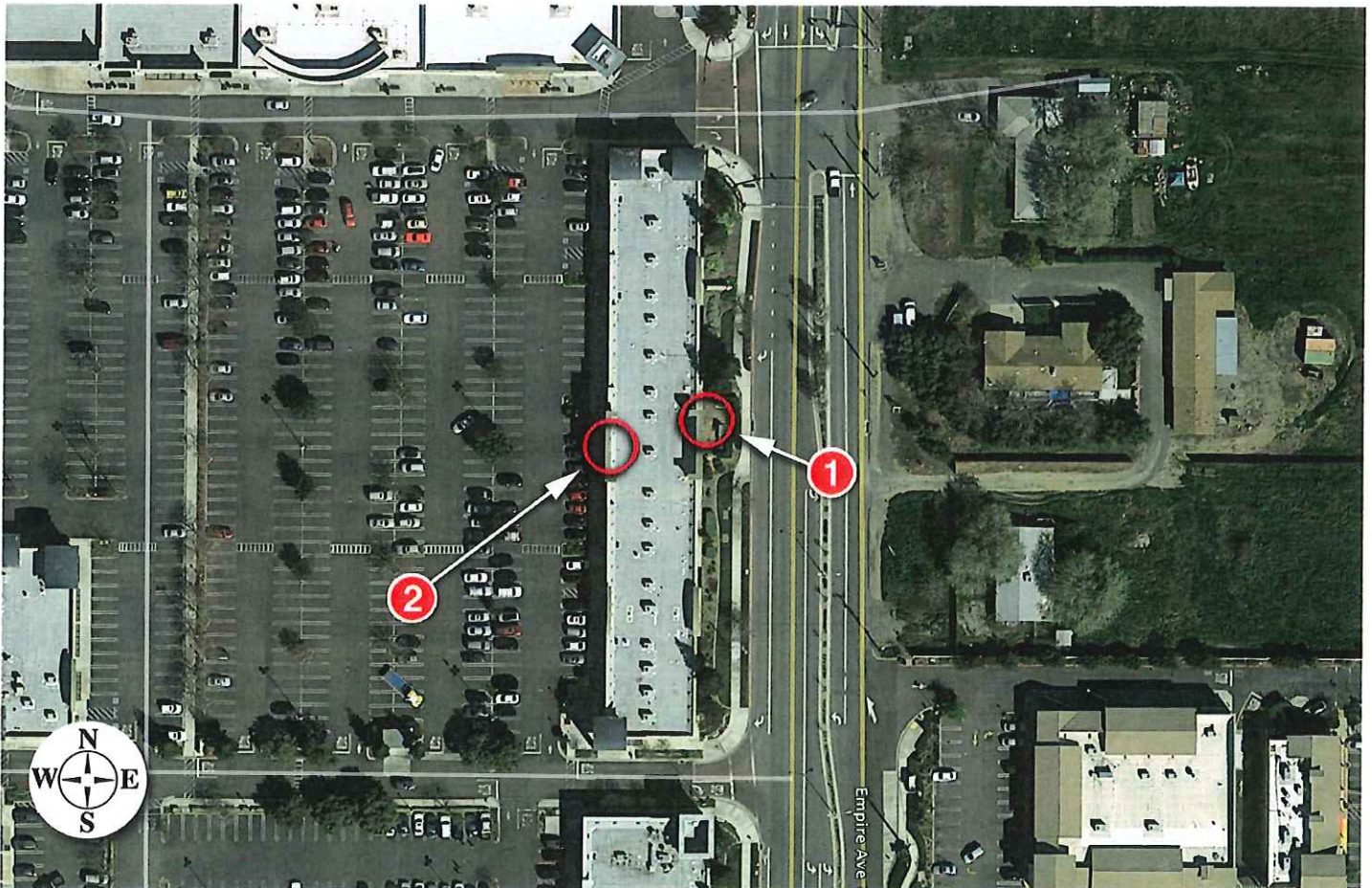
**HAMMETT & EDISON, INC.**  
CONSULTING ENGINEERS  
SAN FRANCISCO

K3WW  
Figure 3

**C7**

# ATTACHMENT “D”

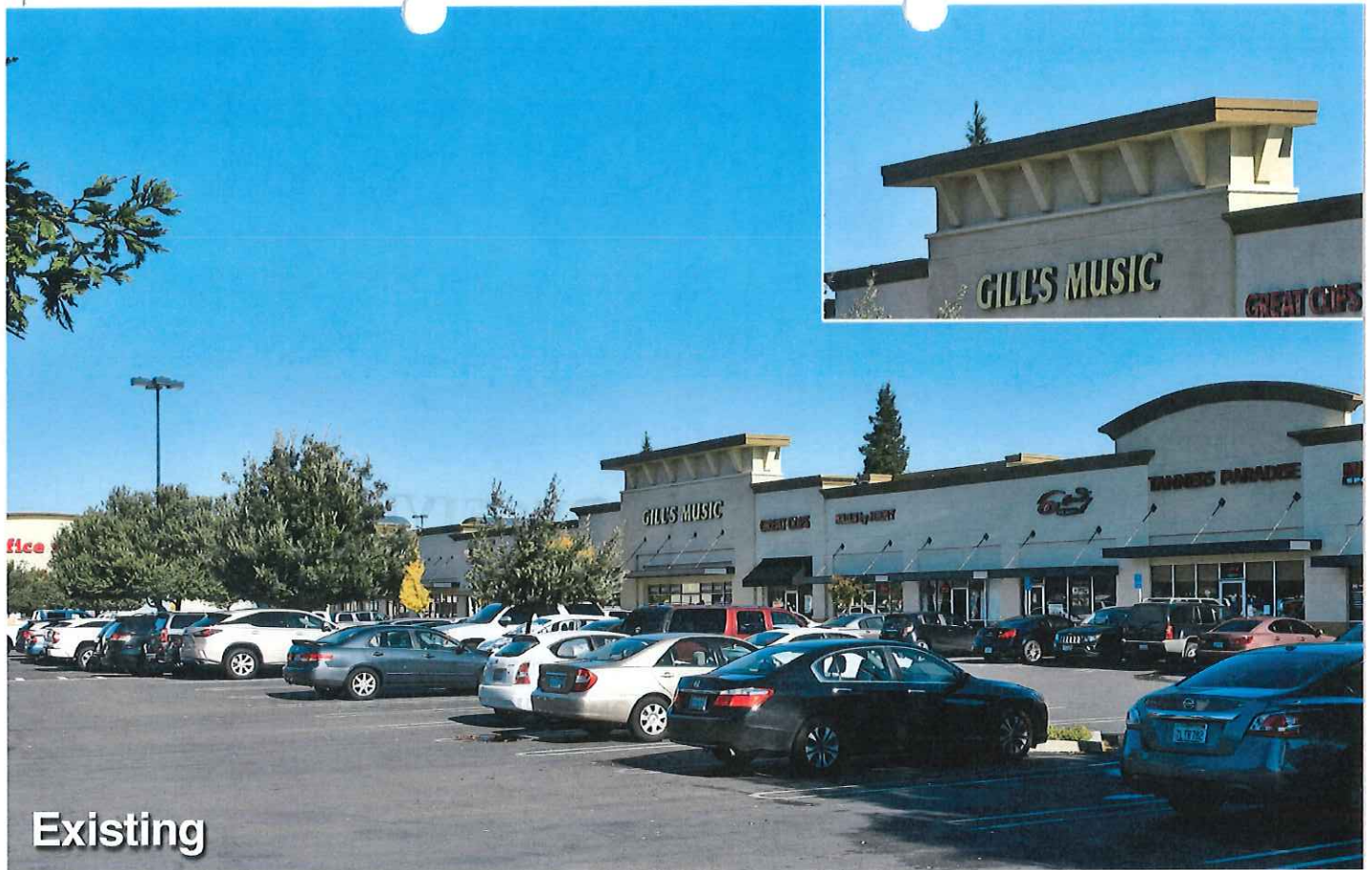












Existing



Proposed



# ATTACHMENT “E”

LOCATION NUMBER: 279856

SHEET	DESCRIPTION	REV
T-1	TITLE SHEET	-
C-1	TOPOGRAPHIC SURVEY	-
C-2	TOPOGRAPHIC SURVEY	-
C-3	TOPOGRAPHIC SURVEY	-
A-1	OVERALL SITE PLAN	-
A-2	SITE PLAN	-
A-3	EQUIPMENT PLAN & DETAILS	-
A-4	ANTENNA PLANS	-
A-5	ELEVATIONS	-
A-6	ELEVATIONS	-
A-7	DETAILS	-

FROM: 2785 MITCHELL DRIVE, BLDG 9, WALNUT CREEK, CA 94598  
TO: 5887 LONE TREE WAY, ANTIPOCH, CA 94531

1. HEAD NORTHEAST ON MITCHELL DR TOWARD OAK GROVE RD
2. TURN RIGHT ONTO OAK GROVE RD
3. TURN LEFT ONTO WILSON PASS RD
4. CONTINUE UNTIL WILSON PASS RD
5. CONTINUE UNTIL RAILROAD AVE
6. TURN RIGHT TO MERGE ONTO CA-4 E TOWARD STOCKTON/MERCULES
7. USE THE RIGHT 4 LANES TO TAKE EXIT 3N FOR LAUREL RD
8. TURN LEFT ONTO LAUREL RD
9. TURN RIGHT ONTO EMPIRE AVE
10. TURN RIGHT ONTO LONG TREE WAY

END AT: 5887 LONE TREE WAY, ANTIOCH, CA 94531

ESTIMATED TIME: 32 MINUTES  
ESTIMATED DISTANCE: 22.1 MILESESTIMATED TIME: 32 MINUTES  
ESTIMATED DISTANCE: 22.1 MILES

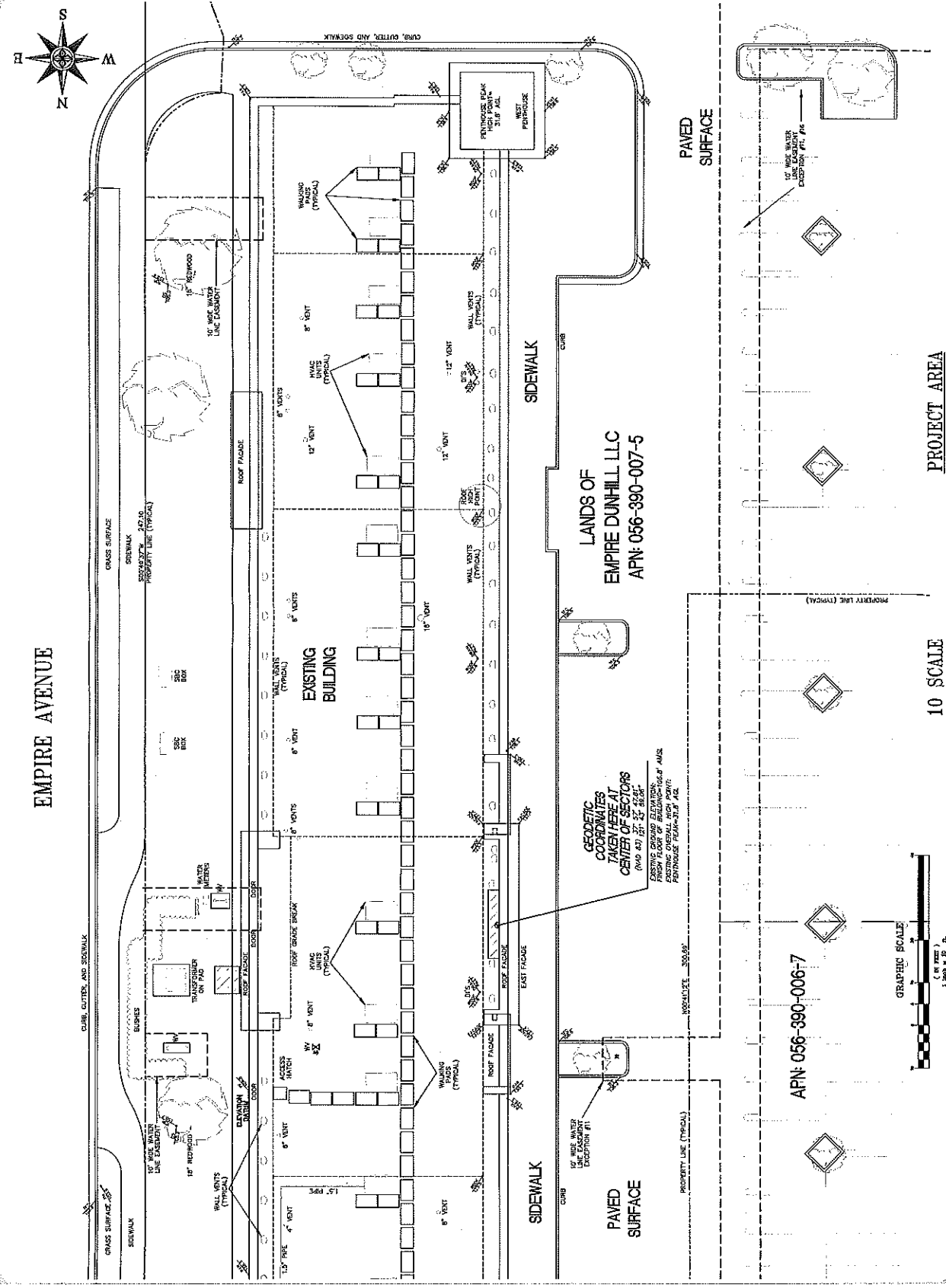
---

CONSTRUCTION CONTACT:  
ATTN: KEITH SCHMID  
(408) 679-1141  
KEITH.SCHMID@BRIDGECOMMUNICATE.COM

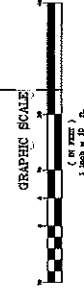




# EMPIRE AVENUE



10 SCALE



APN: 056-390-006-7

LANDS OF  
EMPIRE DUNHILL, LLC  
APN: 056-390-007-5

**verizon**

2785 MITCHELL DRIVE  
WALNUT CREEK, CA 94598  
OFFICE: 925-279-0000  
(925) 279-6333



**HAYES**  
*Land Surveying*  
2310 HAWTHORNE DRIVE  
CONCORD, CA 94618



DATE	DESCRIPTION
9/28/2016	SITE PLAN
12/22/16	RECORD COORDINATE
12/16/16	REDESIGN
4/10/17	REDESIGN SITE ACCESS
4/21/17	AS-BUILT PLOTTED
9/13/17	FINALIZED SURVEY

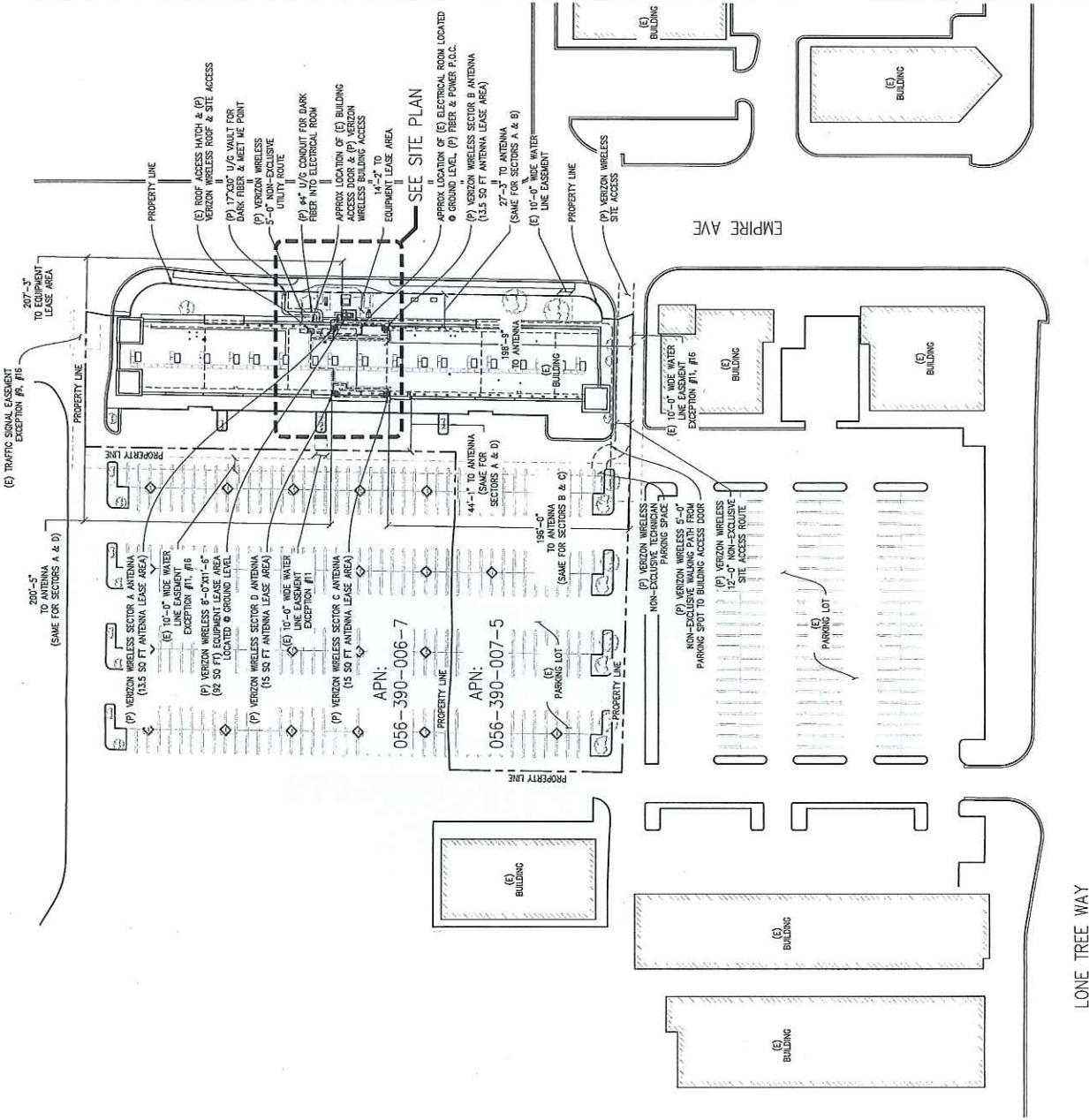
TOPOGRAPHIC SURVEY  
EXISTING CONDITIONS

C-2  
SHEET 2 of 3  
PLOT #279066  
EMPIRE SHOPPING  
CENTER SCI  
6887 LONE TREE WAY  
ANTIOCH, CA 94531



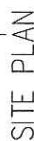
ISSUE STATUS		
Δ	DATE	DESCRIPTION
1	03/25/18	2D SITE PLAN
2	04/20/18	2D 100% C.C.
3	04/20/18	2D 100% C.C.
4	04/20/18	2D 100% C.C.
5	04/20/18	2D 100% C.C.
6	04/20/18	2D 100% C.C.
7	04/20/18	2D 100% C.C.
8	04/20/18	2D 100% C.C.
9	04/20/18	2D 100% C.C.
10	04/20/18	2D 100% C.C.
11	04/20/18	2D 100% C.C.
12	04/20/18	2D 100% C.C.
13	04/20/18	2D 100% C.C.
14	04/20/18	2D 100% C.C.
15	04/20/18	2D 100% C.C.
16	04/20/18	2D 100% C.C.
17	04/20/18	2D 100% C.C.
18	04/20/18	2D 100% C.C.
19	04/20/18	2D 100% C.C.
20	04/20/18	2D 100% C.C.
21	04/20/18	2D 100% C.C.
22	04/20/18	2D 100% C.C.
23	04/20/18	2D 100% C.C.
24	04/20/18	2D 100% C.C.
25	04/20/18	2D 100% C.C.
26	04/20/18	2D 100% C.C.
27	04/20/18	2D 100% C.C.
28	04/20/18	2D 100% C.C.
29	04/20/18	2D 100% C.C.
30	04/20/18	2D 100% C.C.
31	04/20/18	2D 100% C.C.
32	04/20/18	2D 100% C.C.
33	04/20/18	2D 100% C.C.
34	04/20/18	2D 100% C.C.
35	04/20/18	2D 100% C.C.
36	04/20/18	2D 100% C.C.
37	04/20/18	2D 100% C.C.
38	04/20/18	2D 100% C.C.
39	04/20/18	2D 100% C.C.
40	04/20/18	2D 100% C.C.
41	04/20/18	2D 100% C.C.
42	04/20/18	2D 100% C.C.
43	04/20/18	2D 100% C.C.
44	04/20/18	2D 100% C.C.
45	04/20/18	2D 100% C.C.
46	04/20/18	2D 100% C.C.
47	04/20/18	2D 100% C.C.
48	04/20/18	2D 100% C.C.
49	04/20/18	2D 100% C.C.
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59	04/20/18	2D 100% C.C.
60	04/20/18	2D 100% C.C.
61	04/20/18	2D 100% C.C.
62	04/20/18	2D 100% C.C.
63	04/20/18	2D 100% C.C.
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72	04/20/18	2D 100% C.C.
73	04/20/18	2D 100% C.C.
74	04/20/18	2D 100% C.C.
75	04/20/18	2D 100% C.C.
76	04/20/18	2D 100% C.C.
77	04/20/18	2D 100% C.C.
78	04/20/18	2D 100% C.C.
79	04/20/18	2D 100% C.C.
80	04/20/18	2D 100% C.C.
81	04/20/18	2D 100% C.C.
82	04/20/18	2D 100% C.C.
83	04/20/18	2D 100% C.C.
84	04/20/18	2D 100% C.C.
85	04/20/18	2D 100% C.C.
86	04/20/18	2D 100% C.C.
87	04/20/18	2D 100% C.C.
88	04/20/18	2D 100% C.C.
89	04/20/18	2D 100% C.C.
90	04/20/18	2D 100% C.C.
91	04/20/18	2D 100% C.C.
92	04/20/18	2D 100% C.C.
93	04/20/18	2D 100% C.C.
94	04/20/18	2D 100% C.C.
95	04/20/18	2D 100% C.C.
96	04/20/18	2D 100% C.C.
97	04/20/18	2D 100% C.C.
98	04/20/18	2D 100% C.C.
99	04/20/18	2D 100% C.C.
100	04/20/18	2D 100% C.C.

SHEET TITLE	
OVERALL	SITE PLAN
SHEET NUMBER	
A-1	



ISSUE STATUS			
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	-	-	-
	-	-	-
DRAWN BY:		C. CODY	
CHECKED BY:		J. GRAY	
APPROVED BY:		-	
DATE:		04/30/18	

SHEET TITLE:	SITE PLAN
SHEET NUMBER:	A-2





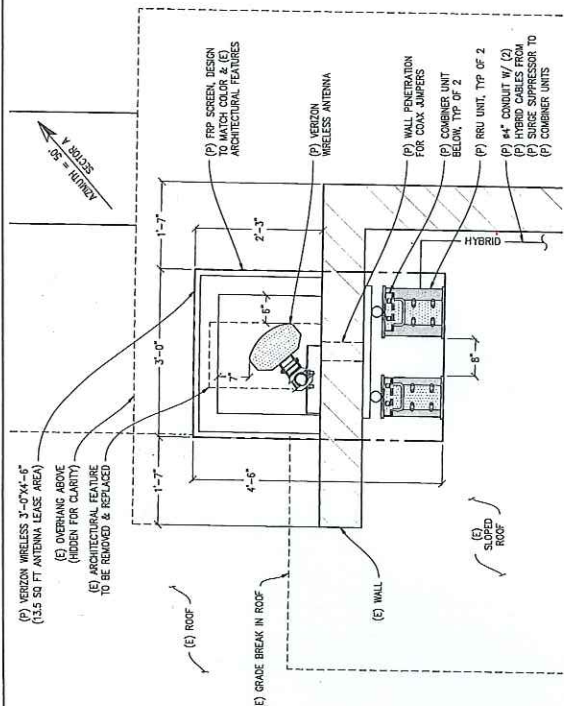




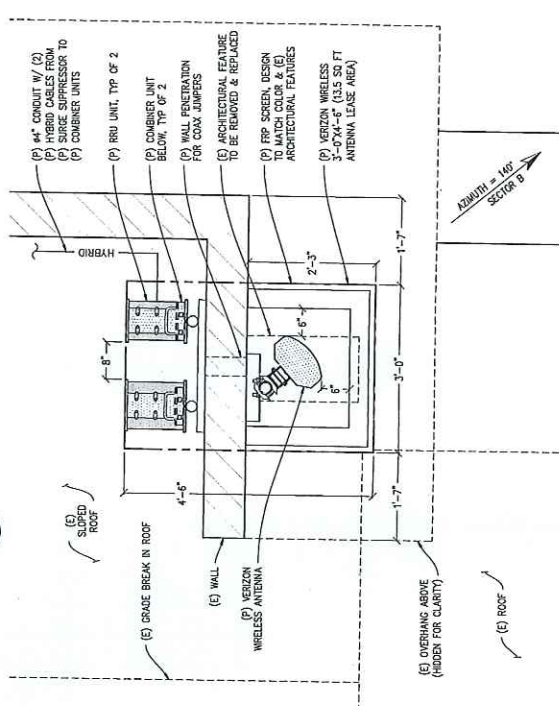
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3	04/20/18	REV	3
4	04/20/18	REV	4
5	04/20/18	REV	5
6	04/20/18	REV	6
7	04/20/18	REV	7
8	04/20/18	REV	8
9	04/20/18	REV	9
10	04/20/18	REV	10

DRAWN BY: C. COY  
CHECKED BY: J. GRAY  
APPROVED BY: -  
DATE: 04/20/18

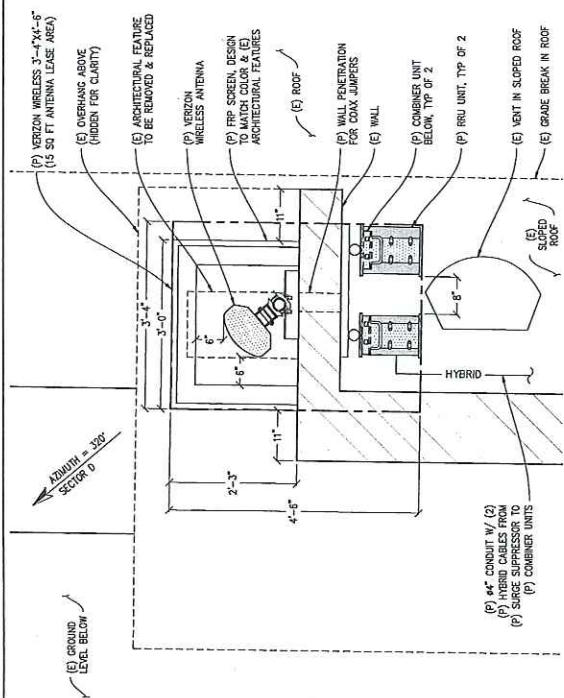
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ANTENNA PLANS  
SHEET NUMBER:  
A-4



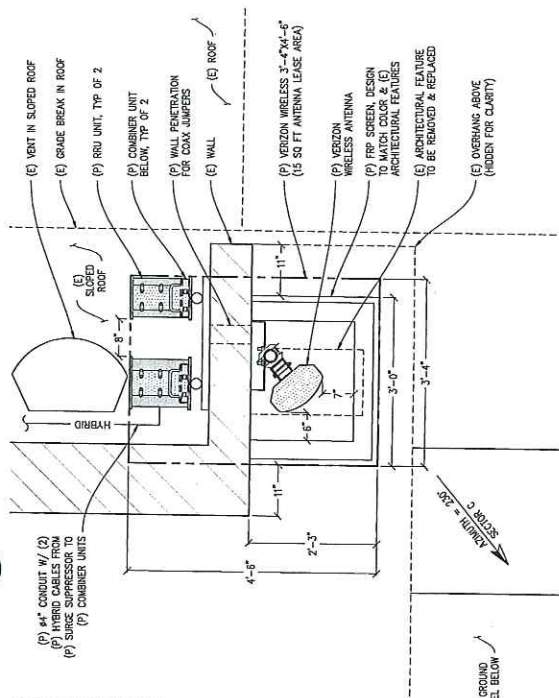
ANTENNA PLAN SECTOR A



ANTENNA PLAN SECTOR B



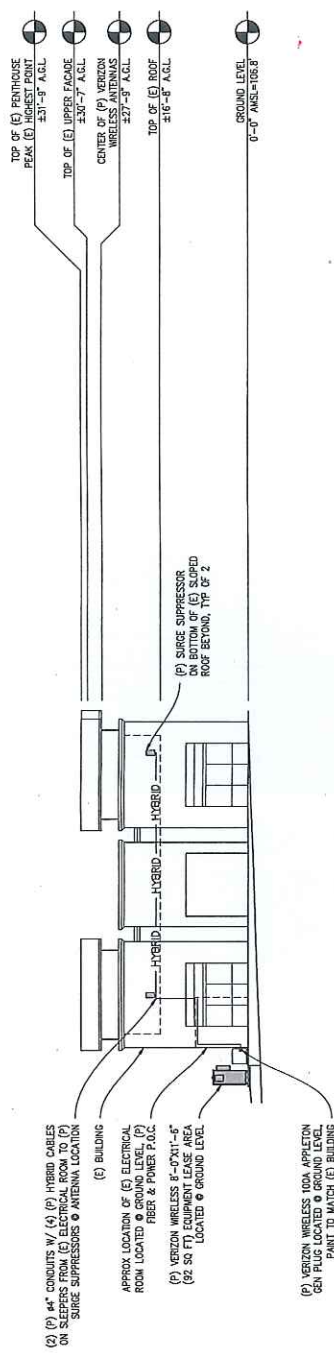
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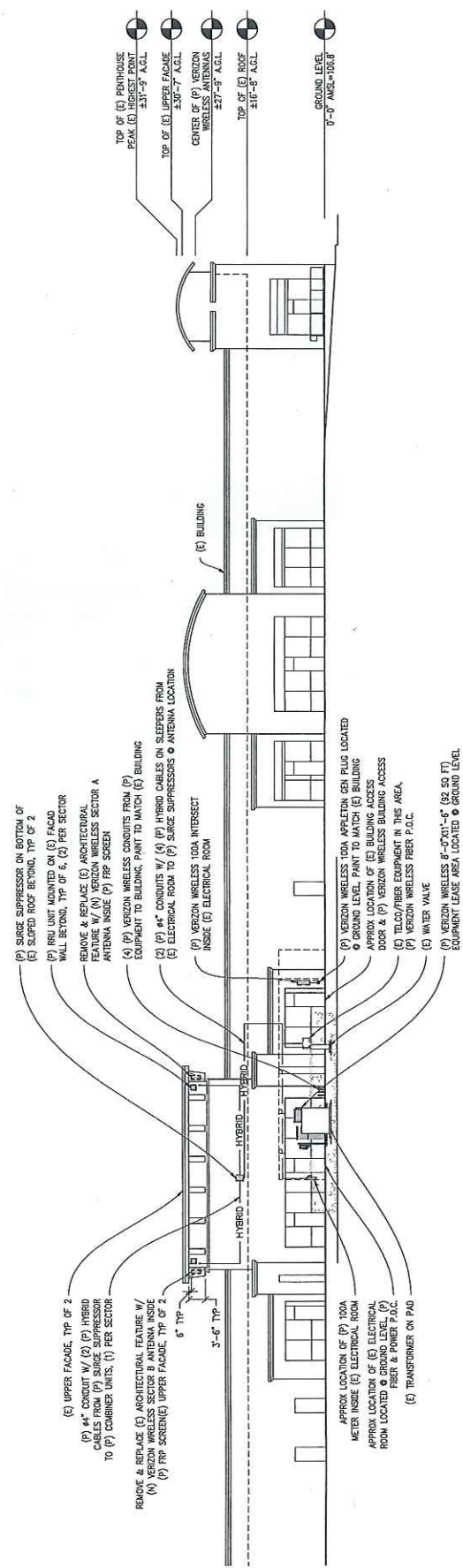
ANTENNA PLAN SECTOR D



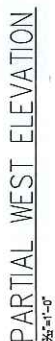
ISSUE STATUS			
REV.	DATE	DESCRIPTION	REV.
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C.C.	04/30/18	ZD 100%	C.C.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
DRAWN BY:		C. CODY	
CHECKED BY:		J. GRAY	
APPROVED BY:		-	
DATE:		04/30/18	
SHEET TITLE:			
ELEVATIONS			
SHEET NUMBER:			
A-5			



NORTH ELEVATION  
SCALE = 1"=0'



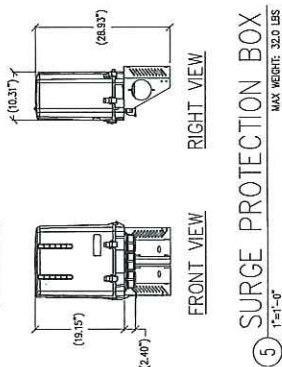
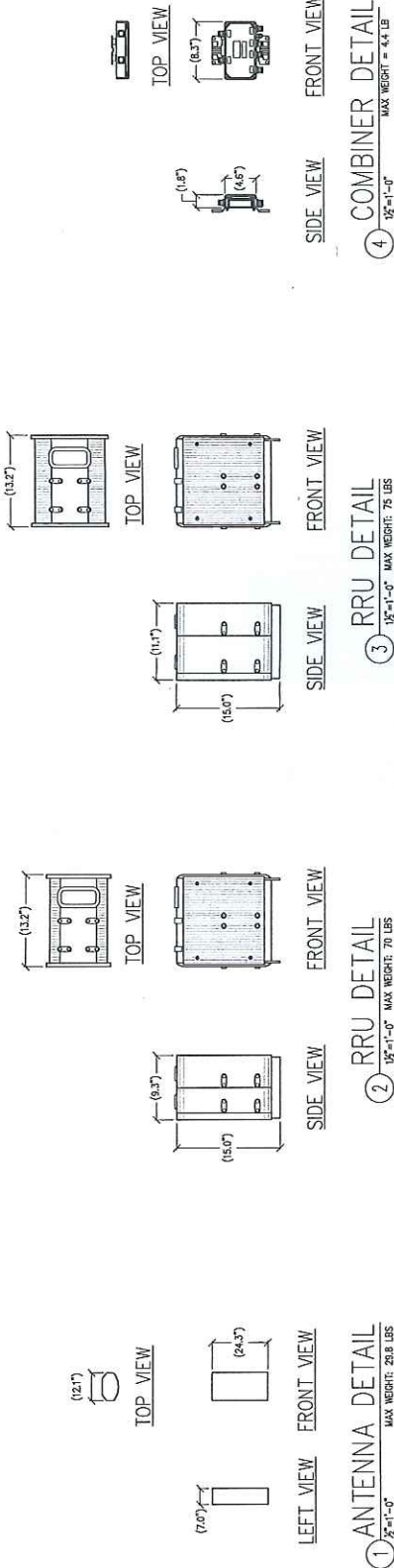
PARTIAL EAST ELEVATION  
2'-0"



ENLARGED ANTENNA ELEVATION  
1° 51' - 0°

SIDE VIEW  
(SIMILAR @ ALL SECTORS)





# **VZW Site: EMPIRE SHOPPING CENTER SC1 Site Coverage Justification**

**Friday, June 7, 2018**

**Submitter By:**

**Pablo Sanchez, Jr.**

**RF Design Engineer, Verizon Wireless**

**2785 Mitchell Drive, Walnut Creek, CA 94598**



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**RECEIVED**

**AUG 15 2018**

**CITY OF ANTIOCH  
COMMUNITY DEVELOPMENT**



## LTE RF DESIGN CONSIDERATIONS

1. **Coverage** is the need for expanded service often requested by our customers and/or emergency service personnel. While this initially meant providing coverage outdoors and in vehicles along transportation arteries, as usage patterns have shifted, this now includes improving coverage inside of buildings and in residential areas. Recent trend of our traffic usage also comes from schools, universities and shopping malls where proposed wireless facility is located near to these places.
2. **Capacity (Data Throughput Enhancement)** is an improvement of data speed resulting to an augmented coverage footprint as well as increased and improved signal quality in areas with thin coverage. Likewise, this new site will have additional carriers (aka additional spectrum) that will increase its service bandwidth. In the simplest form, this means a wireless communications facility can handle a limited number of voice calls, data megabytes, or total number of active users within the confine of acceptable coverage threshold. When any one of these limits are not met and/or areas outside the threshold of its coverage, the user experience in this cell will quickly starts to degrade or worst scenario, subscribers will not be able to get service connection due to bad and inaccessible network.
3. **Interference** LTE wireless network is susceptible to any spurious and unwanted RF signals generated by either external or internal sources. It degrades quality of service when unwanted signal suppress the carrier signal transmitted by the desired serving sector in that area.



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## COVERAGE OBJECTIVE: EMPIRE SHOPPING CENTER SC1

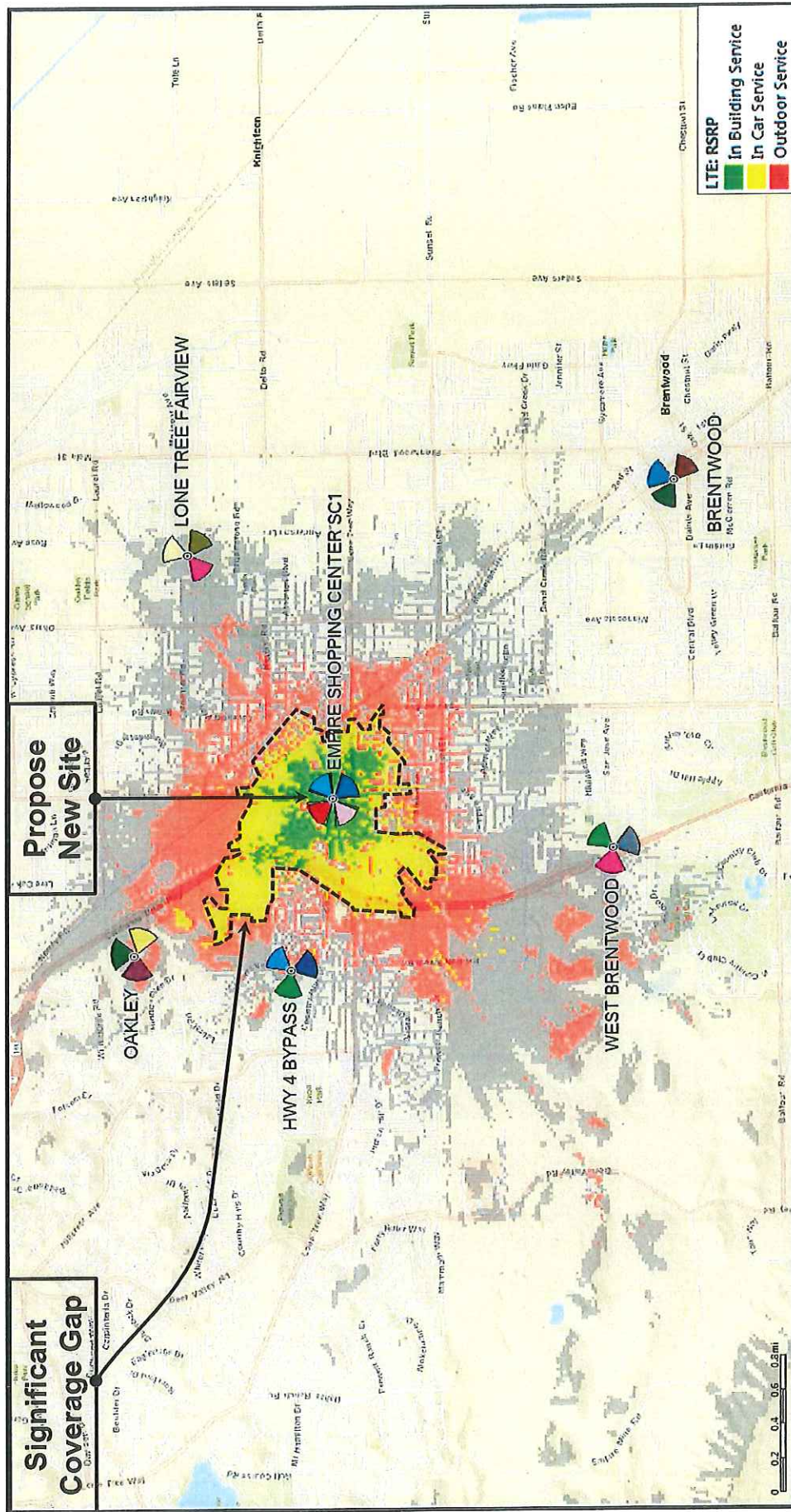
The main driver that led us to decide where to build a wireless communications facility is **Coverage** and **Capacity**. The propose site will improve Verizon's network coverage in the area collectively described as Significant Service Gap.

Verizon Wireless has identified a Significant Service Gap in its Long Term Evolution (LTE) wireless service shown in **dotted polygon** on **page 4**. Poor and spotty coverage exists in main artery roads in a half mile radius leading towards Empire Shopping Center. Commuters driving along these roads who are Verizon subscribers experience intermittent service due to existing network reaching its usage limit especially during peak hours as shown as exhausted sectors on **page 5**. Local resident subscribers, non-Verizon subscribers who will use the network on 911 calls, and emergency personnel will be serve by this propose site with better and augmented service.

Before and after propagation maps shown on **pages 6** and **7** demonstrate propose wireless communications facility fulfilling its design objective to mitigate areas with coverage deficiencies and improving user's experience to keep them connected to people that matters most to them.

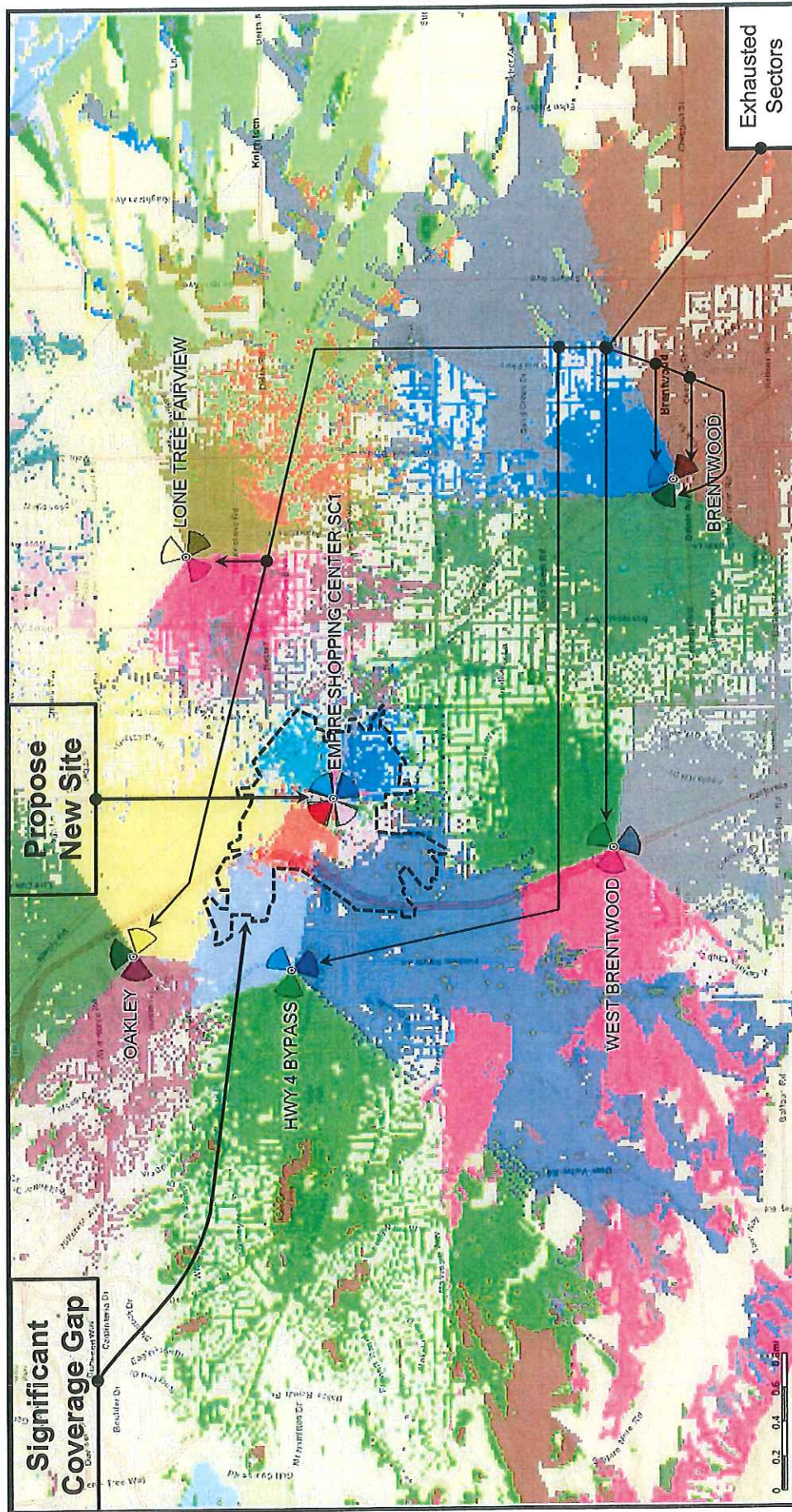


# STANDALONE COVERAGE MAP OF EMPIRE SHOPPING CENTER SC1





# CURRENT BEST SECTOR COVERAGE (Threshold Measured at Outdoor Service Signal Level)

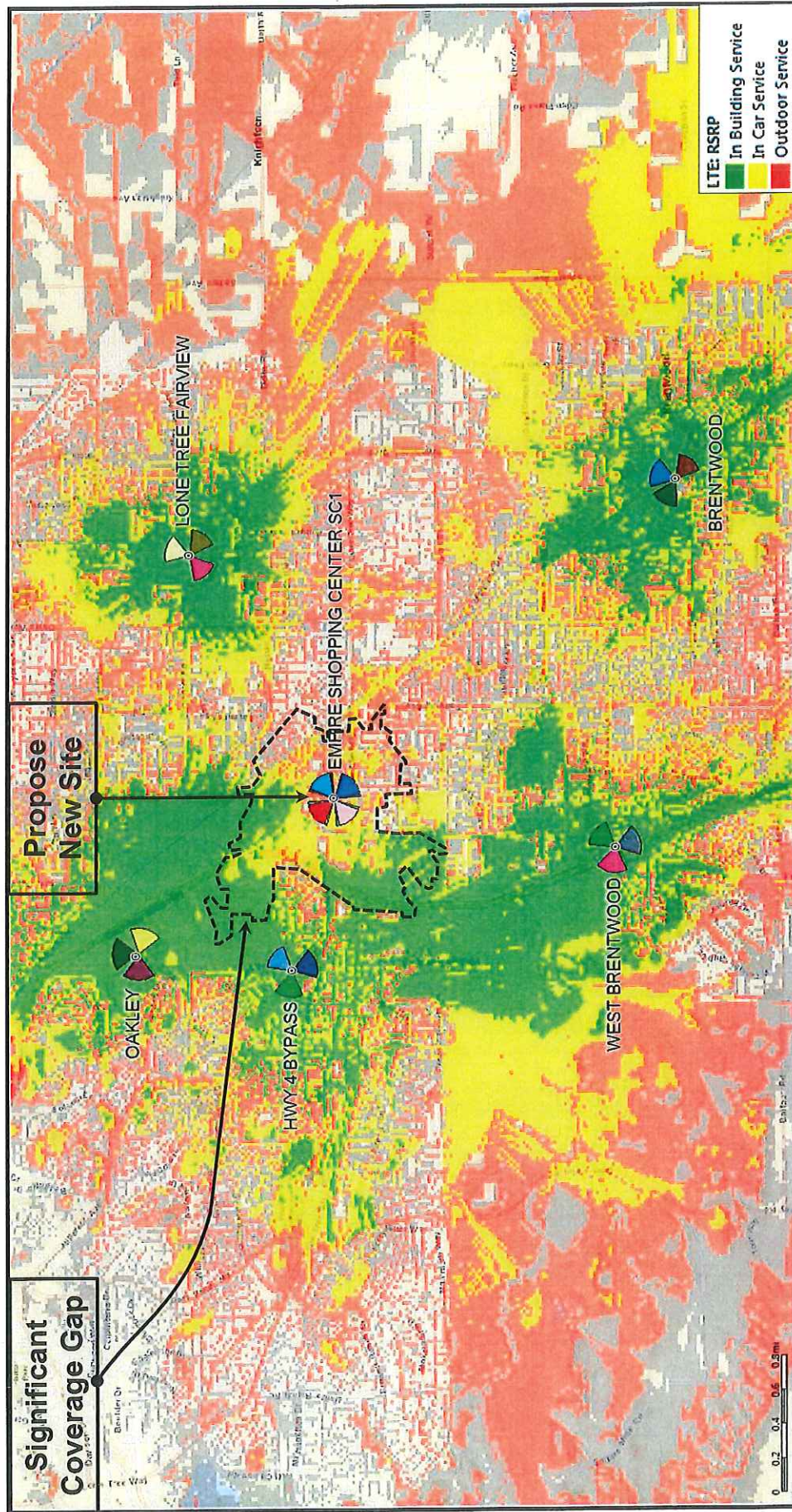


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**verizon**



# EXISTING COVERAGE MAP (Current On-Air Sites)

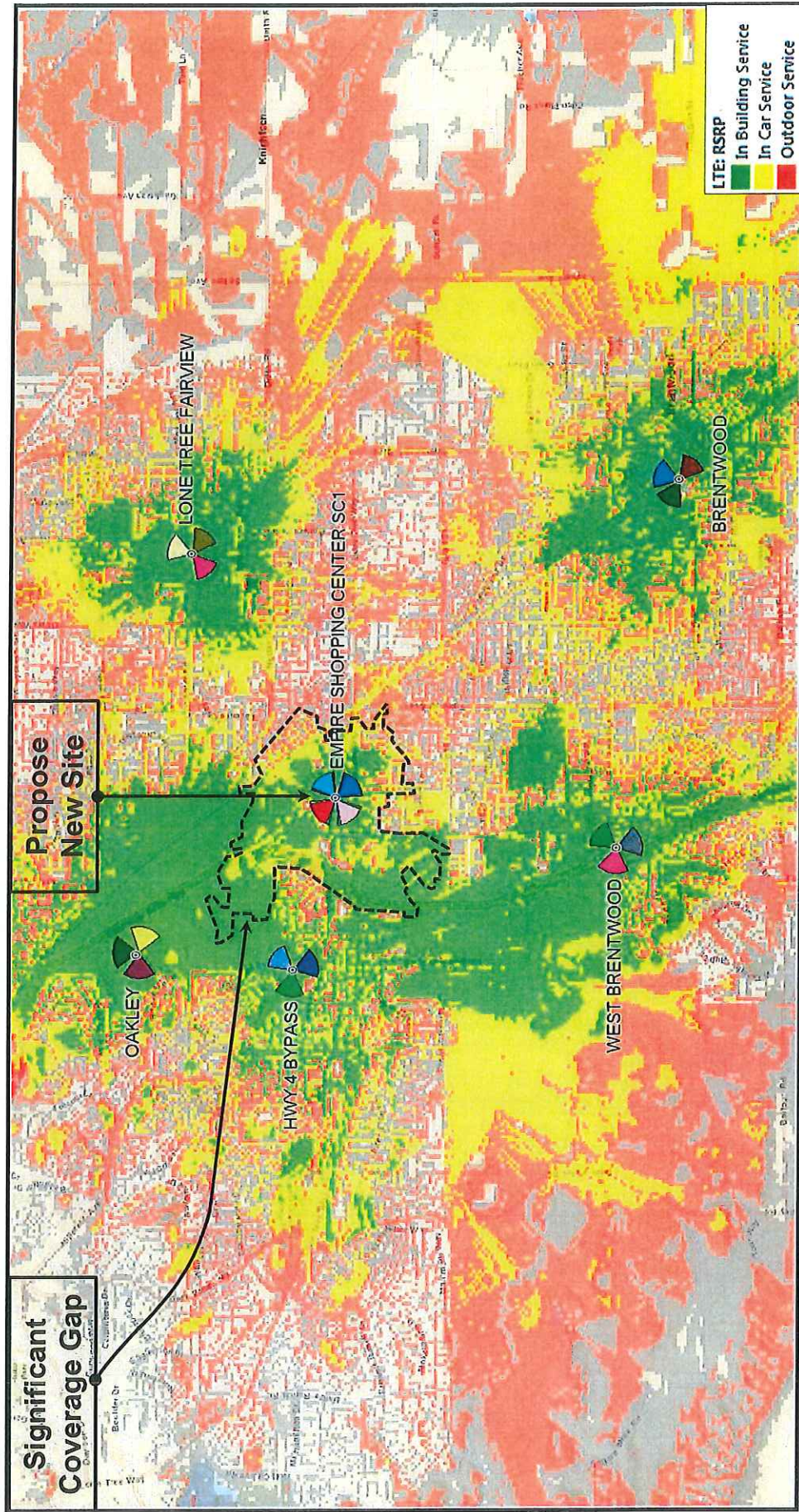


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# COMPOSITE COVERAGE MAP (Existing + Propose)



**verizon**

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