



# Culver CITY

PUBLIC WORKS DEPARTMENT

9770 Culver Boulevard, Culver City, California 90232



(310) 253-5600

FAX (310) 253-5626

Yanni Demitri, P.E.  
Public Works Director and  
City Engineer

Mate Gaspar, P.E.  
Engineering Services Manager

February 14, 2022

Bardo Osorio  
EukonGroup  
1919 Williams St., Suite 200  
Simi Valley, CA 93065  
Email: bardo.osorio@eukongroup.com

**Re: Notice of Approval of Application, AT&T Small Cell LDRAH-001A – 5839  
Green Valley Circle, U19-0439**

Dear Bardo:

Upon review of AT&T's application and supporting materials, we make the following findings:

1. Per the California Environmental Quality Act ("CEQA"), the State CEQA Guidelines, and the environmental regulations of the City above-referenced wireless facilities qualify as categorically exempt from CEQA pursuant to CEQA Guidelines § 15303(e), New Construction or Conversion of Small Structures;
2. The above-referenced wireless facilities are not detrimental to the public health, safety, and welfare;
3. These facilities comply with all applicable provisions of CCMC Section 11.20.065 and with all applicable design and development standards; and
4. These facilities meet applicable requirements and standards of state and federal law.

As a result, we approve AT&T's above-referenced application. This approval will be contingent upon AT&T complying with all conditions of the related Wireless Utility Permit. Any protests for this approval shall be received within 48 hours of the approval.

Sincerely,

Sammy Romo, P.E.  
Senior Civil Engineer



## **APPLICATION FORM FOR A WIRELESS UTILITY PERMIT TO PLACE FACILITIES IN THE PUBLIC RIGHT-OF-WAY**

### **INSTRUCTIONS:**

Persons applying for a wireless encroachment permit under the City of Culver City Municipal Code (the "Code") for the installation and operation of wireless facilities in the public right-of-way must fill out this application form and submit two (2) physical copies (with all necessary information and documentation) and one electronic copy (with all necessary information and documentation) on a flash drive. All application materials should be submitted in person to the following location:

City of Culver City – Department of Public Works/Engineering Division  
9770 Culver Blvd.  
Culver City, CA 90232

Applications and resubmittals may only be submitted on Mondays and Tuesdays between 8:00 am and 4:00 pm. Please make an appointment to submit your application by calling 310-253-5600.

For additional information regarding application requirements and all other requirements, please review Chapter 11.20 and Section 11.20.065 of the Code and visit the Public Works Telecommunications Utility Permit webpage at: [www.culvercity.org/wireless](http://www.culvercity.org/wireless). For questions, contact the Department of Public Works/Engineering Division at 310-253-5600. If your response to a question includes attachments, label the attachments with exhibit numbers that reflect the Part and Question number to which the exhibit corresponds. As examples: for information requested in Part A, Question 5.a), label the corresponding exhibit as "Exhibit A(5)(a)"; for information requested in Part C, Question 2.a).i, label the corresponding exhibit as "Exhibit C(2)(a)(i)".

### **PART A: BASIC INFORMATION (ALL APPLICANTS)**

**1. Contact Information**

a) The applicant shall submit and maintain current at all times basic contact information set forth below. The applicant shall notify City of any changes to any of this information within fifteen (15) calendar days following any such change. This information shall include the following:

i) The identity, including name, company, address, email, and telephone number of the applicant: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_;

ii) The identity, including name, address, email, and telephone number of the owner of the proposed wireless facility, including official identification numbers and FCC certifications and, if different from the owner, the identity of the person or entity responsible for operating the proposed wireless facility: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_;

iii) If the owner of the structure on which the proposed wireless facility would be installed is different than (ii) above, the identity, including name, address, email, and telephone number of the owner of the structure: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_;

iv) Name, address, email, and telephone number of a local contact person for emergencies: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

**2. Purpose of Wireless Facility**

Is the proposed wireless communications facility to be used for the provision of "personal wireless services" as defined by 47 U.S.C. Section 332(c)(7)(C)(i) on a sole or comingled basis?

No. Specify the type(s) of wireless communications services to be provided using the proposed facility: \_\_\_\_\_.

Yes. Specify the type(s) of personal wireless services: \_\_\_\_\_.

### 3. Type of Application

Please check the applicable box(es) and provide the information required below as an attachment to this Application, along with a written explanation identifying the facts relied upon to support the claimed treatment.

- Eligible Facilities Requests. Applicant asserts that the application qualifies as an “eligible facilities request” (EFR) (as defined in 47 CFR § 1.6100(b)(3), or any successor provision). Applicant shall submit the information required in the Application Requirements Part C, Section 1 below. ***The applicable FCC shot clock is sixty (60) days.***
- Collocation – Small Cell Facility (Existing Structure). Applicant asserts that the application is being submitted for approval of a Collocation of a Small Wireless Facility, that is, the proposed facility both meets the definition of “small wireless facility” and is a “collocation” (both as defined by 47 C.F.R. § 1.6002). Replacements of existing structures are not “collocations”. Applicant shall submit the information required in Part B and the Application Requirements Part C, Section 3 below. ***The applicable FCC shot clock is sixty (60) days.***
- Small Cell Facility (New Structure). Applicant asserts that the application is being submitted for approval to deploy a Small Wireless Facility (as defined by 47 C.F.R. § 1.6002(l)) involving placement of a new structure. Replacements of existing structures are considered new structures. Applicant shall submit the information required in Part B and the Application Requirements Part C, Section 3 below. ***The applicable FCC shot clock is ninety (90) days.***
- Other Wireless Facility Expressly Permitted by State or Federal Law to be in the ROW. Applicant asserts that the application is being submitted for approval of a type of wireless services facility that applicable state or federal laws expressly permit to be in the City’s public rights-of-way. If you checked this box, please attach an explanation of the basis for your assertion, including citations to supporting law, and state what FCC shot clock you assert applies to this application, if any. Submit the information required in the Application Requirements Part C, Section 3 below. Also, complete Part B if you answered yes to Part A, Question 2.
- Permit Renewal. Applicant asserts that the application is being submitted for a renewal of an existing wireless encroachment permit or predecessor permit. If you checked this box, please submit a copy of the original permit, any prior renewals or extensions thereof, and the information required in the Application Requirements Section Part C(2) below.

**Also check the following Waiver Request box if applicable to your application.**



- Waiver Request. Applicant asserts that its application includes a waiver request. Applicant shall include a request for a waiver, as set forth in Section 11.20.065(F)(5) of the Code, and any additional information required in the Application Requirements Part C, Section 4 below. A request for waiver may be submitted at a later time if it is determined that the proposed facility, as originally submitted, will not meet the requirements and restrictions of the Code.

#### 4. Application Fees

Applicant shall pay all applicable fees in the amounts established by the current fee schedule. In the event applicant has pre-paid all or a portion of applicable fees, please include a copy of the receipt from that transaction.

#### 5. Franchises, Authorizations and Licenses

To have a complete application, the applicant must have: (a) authorization to use the public rights-of-way; (b) licenses to provide proposed services; and (c) authorization to use the proposed structure.

- a) Does applicant have an existing franchise or other authorization to place wireless facilities in the public rights-of-way?

No.

If no, the application will be considered incomplete.

Yes.

If yes, explain source of applicant's right to use the public rights-of-way and submit related documentation.

- b) Has applicant obtained all applicable licenses or other authorizations to provide the services proposed in connection with the application, whether required by the Federal Communications Commission, California Public Utilities Commission, or any other agency with authority over the proposed services.

No.

Yes.

If yes, submit related documentation such as FCC licenses or authorizations, a certificate of public convenience and necessity or a wireless identification registration (WIR) from the California Public Utilities Commission.

- c) Is proposed wireless facility to be attached to a structure owned or controlled by a party other than the owner of the proposed wireless facility?

No.

Yes.

If yes, identify the owner as one of the following:

- The City.  
 Other: \_\_\_\_\_(insert name).

If you selected Other, provide a copy of the authorization or license to use the structure.

If you selected the City, select one of the following:

- I have a General Terms and Conditions master license or other agreement with the City for use of the facility. [If you check this box, provide the document.]
- I have no license or other agreement, but I am applying/have applied for one. [If you check this box, the application for a license or agreement must be provided, along with payment or proof of payment of required fees.]
- I have no license or other agreement, and have not applied for a license or other agreement. By checking this box and signing below, you acknowledge and agree that the wireless encroachment permit that is the subject of this application is not a substitute for a license or other agreement to use any City facility, that such license or agreement must be separately applied for and that this wireless encroachment permit application will remain incomplete until the necessary license or other agreement has been approved by the City.

Agreed: \_\_\_\_\_

**PART B: PERSONAL WIRELESS SERVICES FACILITIES (RESPOND IF APPLICABLE)**

1. Based on the work proposed in connection with this project, identify any and all additional permits, approvals, or agreements (“Ancillary Permissions”) you contend must be issued (absent agreement) by the time the City must take action on this wireless application. It is the applicant’s responsibility to review Code, city policies and all state and federal regulations (including, but not limited to, FCC regulations) applicable to the deployment of this wireless facility and to thereby identify all Ancillary Permissions that will be needed before this project can be deployed. The applicant’s failure to conduct a thorough investigation and to identify all required Ancillary Permissions may be grounds for denying this application or for declaring it incomplete. For example, if the proposed wireless facility would be placed on a structure where historical review would be required, the applicant must identify the required historic review permit(s) here. Please identify all Ancillary Permissions that you contend will be required for your wireless project:

- a) \_\_\_\_\_ Fiber Utility Permit
- b) \_\_\_\_\_ Building Permit
- c) \_\_\_\_\_ Electrical Permit

- d) \_\_\_ Traffic Control Permit
- e) \_\_\_ Excavation Permit
- f) \_\_\_ Historical Review Permit
- g) \_\_\_ Other Permit(s). Identify: \_\_\_\_\_

Alternatively, rather than identifying all Ancillary Permissions above, you may agree as follows by signing below: “I agree that, should this wireless application be granted, or granted subject to conditions, no work may be undertaken on the applied-for wireless facility until any required Ancillary Permissions which are not identified above have been applied for and obtained.”

Agreed: \_\_\_\_\_

2. Please provide an attachment that identifies any Ancillary Permissions you identified in response to “1.” (above) and, with respect to each of those Ancillary Permissions, include the following completed checklist:
  - I have the required permit. [If you check this box, attach the required permit.]
  - I don’t have this permit, but I am applying or have applied for one. [If you check this box, the application and all fees or proof of payment of all such fees must be provided.]

### **PART C: DETAILED APPLICATION REQUIREMENTS (RESPOND TO RELEVANT SECTIONS)**

The information required to be included in your application is dependent upon whether it is an eligible facilities request, a renewal of an existing permit, or any other application type. Please reference the appropriate section below for your application type to read a detailed list of its requirements. Additionally, regardless of the application type, each applicant must demonstrate their adherence to the *Design and Development Standards for Wireless Facilities in the Public Rights-of-Way* that are adopted by Resolution of the City Council pursuant to Chapter 11.20.065.D.1 of the Code.

1. **ELIGIBLE FACILITIES REQUESTS: *For an application asserted to be an eligible facilities request***, the application must provide the following information:

#### **a) Location and Zoning Information**

- i) Location of the project site, including the nearest registered address, the names of the two nearest cross streets, GPS coordinates, and the present zone designation of the project site.
- ii) If the facility is proposed to be attached to an existing pole, provide the pole number. (To obtain a City-owned streetlight pole Facility ID number and to determine its small cell site status visit: [Streetlight Inventory](#))

- iii) Applicant shall include signed documentation indicating that applicant is the owner or is authorized by the owner of the structure and/or property to install and operate the proposed facility.

**b) Description of the Proposed Project**

- i) A description of the proposed facility(ies), including whether the project is a collocated facility or the replacement, removal, or modification of an existing facility.
- ii) A detailed explanation as to why applicant asserts that the facility constitutes an eligible facilities request, including reference to and analysis of applicable FCC rules as they pertain to the proposed facility.
- iii) A list of all facilities and equipment proposed to be installed and the dimensions, weight, and manufacturer's specifications for each.
- iv) A description of the concealment elements, if any, associated with the facilities as they will be modified, including but not limited to painting, and shielding as modified. The showing should be sufficient to demonstrate that the modifications will not defeat any existing concealment elements. If there will be no concealment elements, so state.
- v) A description of any ground disturbance necessary to complete the proposed project.
- vi) A description of the site and any deployment outside the site necessary to complete the proposed project.
- vii) If a collocation, a description of why this installation qualifies as a collocation within the meaning of the FCC rules.
- viii) A description of all changes made to the facility from the date of the original installation (whether or not approved) and a description of the changes in height since January 22, 2012.
- ix) A description of all changes to be made to the existing base station and/or tower, including, among other things, identifying precisely what changes will be made to the supporting structure.

**c) Prior Approvals/Permits**

- i) A copy of all approvals and/or permits for the tower or base station that is to be modified, and any subsequent modification approvals and/or permits, and of any required conditions (imposed by the City and/or third party) placed on the initial or subsequent approvals and/or permits.
- ii) A showing that the facility, as modified, will be in compliance with existing conditions of the underlying approval(s)/permit(s), whether or not it is in compliance with conditions as of the date of application. There must be a plan submitted for correction of any non-compliant condition.

**d) Site Plan**

- i) Three (3) copies of a facility site plan, at a scale of 1"=20' or larger, and including the following:
  - (1) A north-pointing arrow on each plan sheet;
  - (2) Title block with applicant's name, owner's name, and contact information;
  - (3) Depiction of the fully-constructed proposed facility;
  - (4) Location of lot lines, streets (with street names), easements, and all structures and improvements, including accessory equipment, underground utilities and support structures, existing and proposed;
  - (5) Existing and proposed elevations of all facilities, equipment, support structures, appurtenances, and other related structures;
  - (6) Slopes, contours, trees and other pertinent physical features of the site, existing and proposed;
  - (7) All exterior lighting on the site, existing and proposed;
  - (8) As to the nearest structure located on any properties abutting the site on which you are proposing to install your wireless facility, the location and use of that structure as well as the distance from that structure to the property line of the site on which you are proposing to install your wireless facility; and
  - (9) The location of parking for maintenance personnel.

**e) Site Photograph(s)**

- i) Current color photographs of the site and its surroundings.

**f) Visual Impact Analysis**

- i) A visual impact analysis, which shall include photomontage, photo simulation or similar technique, demonstrating, from all four primary directions (north, south, east, and west) the potential visual impacts of the proposed facility. Consideration shall be given to views from public areas as well as from private property.

**g) Noise**

- i) Operation of wireless facilities shall comply with the noise regulations set in Chapters 9.04 and 9.07 of the Code and the noise element of the General Plan. Demonstrate compliance by providing, among other relevant information, a description of the facilities and/or equipment within the applicant's project that are expected to induce or generate noise, as well as anticipated noise levels of said facilities and/or equipment. For facilities that generate noise, please provide testing data for noise assuming maximum facility utilization and operational utilization (worst

case) 10 feet from the source. Specify times and conditions during which noise generation will occur.

#### **h) FCC Radio Frequency Standards**

- i) A report signed by a California licensed professional engineer, with expertise in radio communications facilities and the calculation of radio frequency emissions, that affirms, under penalty of perjury, that the proposed installation will be compliant with the FCC's standards. The report must also contain the following:
  - (1) A description of each of the proposed antennas and all related fixtures, structures, appurtenances and apparatus, including the height above grade, volume in total cubic feet, materials, lighting, and the directionality of each antenna (e.g., omni, directional, etc.);
  - (2) The frequency, modulation and class of service;
  - (3) A clear identification of areas, both vertically and horizontally, where exposure levels will exceed FCC standards for general public and occupational exposures. Please note that applicant's analysis must show that it has appropriately taken cumulative exposures into account, and should show exposures based on "worst case" scenarios;
  - (4) A certification that the facility will comply with all applicable standards for radio frequency emissions, including cumulative effects, and a description of the manner in which the radio frequency emissions for the facility were calculated and the results of those calculations. Individual and cumulative emissions should be evaluated; and
  - (5) If the certification of the facility as currently installed, or as proposed to be modified, is subject to conditions designed to limit general public or occupational exposure, identify those conditions, and demonstrate that they have been satisfied, or describe when they will be satisfied.

#### **i) Structural Analysis**

- i) A report signed by a California licensed professional engineer qualified in structural engineering, containing the following:
  - (1) In the case of a wireless facility attached to existing infrastructure, documentation of the ability of the structure to support the antennas, the proposed method of affixing the antennas and the precise point at which the antennas shall be mounted;
  - (2) In the case of a facility with a support structure (e.g. monopole), documentation demonstrating: 1) that the structure is capable of supporting the antennas (and any other equipment to be attached to or supported by the support structure); 2) that the structure complies

with applicable laws and codes; 3) the structure's capacity for additional collocated antennas; 4) the precise point at which the antennas shall be mounted; and

- (3) A certification that the structure(s) on which the wireless facility (including all accessory equipment, such as radios, cabinets, etc.) will be placed can safely support the wireless facility; and that all elements of the wireless facility comply with applicable safety standards, including, without limitation, GO 95, 165, and 166.

**j) Notice**

- i) Evidence that notice has been given consistent with Attachment 1 to all necessary parties.

**2. RENEWAL REQUESTS: *For a renewal of an existing permit*, the application must provide the following information:**

**a) Location and Zoning Information**

- i) Location of the project site, including the nearest registered address, the names of the two nearest cross streets, GPS coordinates, and the current zone designation of the project site.
- ii) If the existing facility is attached to a pole, provide the pole number. (To obtain a City-owned streetlight pole Facility ID number and to determine its small cell site status visit: [Streetlight Inventory](#))
- iii) Applicant shall include signed documentation indicating that applicant is authorized by the owner of the support structure and/or real property to continue operating the facility.

**b) Description of the Project for Renewal**

- i) A description of the existing facility(ies).
- ii) A list of all facilities and equipment currently installed and the dimensions, weight, and manufacturer's specifications for each.
- iii) A written description of the concealment measures applicant is using to aesthetically blend the facility to the immediate surroundings and to minimize its visual impact. This should include, but not be limited to, a description of concealment techniques, sizing and placement of elements of the facility (including undergrounding), measures to limit visibility of the facility from residential dwelling units, and the textures and colors used in the concealment process. If none, so state.
- iv) A description of the site and any deployment outside the site.
- v) A description of all changes made to the facility from the date of the original installation (whether or not approved) and a description of the changes in height since January 22, 2012.



**c) Prior Approvals/Permits**

- i) A copy of all approvals and/or permits for the tower or base station and any subsequent modification approvals and/or permits, and of any required conditions (imposed by the City and/or third party) placed on the initial or subsequent approvals and/or permits.
- ii) A showing that the facility is in compliance with existing conditions of the underlying approval(s)/permit(s). If the facility is not in compliance with conditions as of the date of application, there must be a plan submitted for correction of any non-compliance condition.

**d) Facility Plan and Photograph(s)**

- i) Three (3) copies of the existing facility plan at a scale of 1"=20' or larger and including a north-pointing arrow on each sheet and title block with applicant's name, owner's name, and contact information.
- ii) Current color photographs of the facility and its surroundings.

**e) Visual Impact Analysis**

- i) A visual impact analysis, which shall include photographs, demonstrating from all four primary directions (north, south, east, and west) the visual impacts of the existing facility. Consideration shall be given to views from public areas as well as from private property.

**f) Noise**

- i) Operation of wireless facilities shall comply with the noise regulations set in Chapters 9.04 and 9.07 of the Code and the noise element of the General Plan. Demonstrate continued compliance by providing, among other relevant information, a description of the facilities and/or equipment within the applicant's project that induce or generate noise, as well as the noise levels of said facilities and/or equipment. For facilities that generate noise, please provide testing data for noise assuming maximum facility utilization and operational utilization (worst case) 10 feet from the source. Specify times and conditions during which noise generation will occur.

**g) FCC Radio Frequency Standards**

- i) A report signed by a California licensed professional engineer with expertise in radio communications facilities and the calculation of radio frequency emissions that affirms, under penalty of perjury, that the existing facility is compliant with the FCC's standards. The report must also contain the following:

- (1) A description of each of the antennas and all related fixtures, structures, appurtenances and apparatus, including the height above grade, volume in total cubic feet, materials, lighting, and the directionality of each antenna (e.g., omni, directional, etc.);
- (2) The frequency, modulation and class of service;
- (3) A clear identification of areas, both vertically and horizontally, where exposure levels exceed FCC standards for general public and occupational exposures. Please note that applicant's analysis must show that it has appropriately taken cumulative exposures into account, and should show exposures based on "worst case" scenarios;
- (4) A certification that the facility is in compliance with all applicable standards for radio frequency emissions, including cumulative effects, and a description of the manner in which the radio frequency emissions for the facility were calculated and the results of those calculations. Individual and cumulative emissions should be evaluated; and
- (5) If the certification of the facility as currently installed is subject to conditions designed to limit general public or occupational exposure, identify those conditions, and demonstrate that they have been satisfied, or describe when they will be satisfied.

#### **h) Structural Analysis**

- i) A report signed by a California licensed professional engineer qualified in structural engineering, containing the following:
  - (1) In the case of a wireless facility attached to existing infrastructure, documentation of the ability of the structure to continue to support the antennas and any required maintenance;
  - (2) In the case of a facility with a support structure (e.g. monopole), documentation that the structure is capable of continuing to support the antennas (and any other equipment attached to or supported by the support structure) and complies with applicable laws and codes, as well as the structure's capacity for additional collocated antennas; and
  - (3) A certification that the structure(s) on which the wireless facility (including all accessory equipment, such as radios, cabinets, etc.) is placed can continue to safely support the wireless facility; and that all elements of the wireless facility comply with applicable safety standards, including, without limitation, GO 95, 165, and 166.

#### **i) Notice**

- i) Evidence that notice has been given consistent with Attachment 1 to all necessary parties.

**3. ALL OTHER APPLICATIONS: *For all other types of applications*, the following must be provided:**

**a) Location and Zoning Information**

- See project plans, T1 i) Location of the project site, including the nearest registered address, the names of the two nearest cross streets, GPS coordinates, and the present zone designation of the project site.
- See project plans, T1 ii) If the facility is proposed to be attached to an existing utility pole, provide the pole number. (To obtain a City-owned streetlight pole Facility ID number and to determine its small cell site status visit: [Streetlight Inventory](#))
- See LOA iii) Applicant shall include signed documentation indicating that applicant is authorized by the owner of the support structure and/or real property to install and operate the proposed facility.

**b) Description of the Proposed Project**

- See project plans, T1 i) A description of the proposed facility(ies), including whether the project is a new facility, a collocated facility, or a modification to an existing facility.
- See Narrative ii) If the application is for a small cell facility, an explanation asserting all of the grounds why the proposed facility constitutes a small cell facility.
- See Narrative iii) If a new facility, the applicant shall include an explanation of whether the new facility could and will be designed to accommodate future wireless facilities.
- See project plans iv) A list of all facilities and equipment proposed to be installed and the dimensions, weight, and manufacturer's specifications for each.
- See Narrative v) A written description of the concealment measures applicant proposes to use to aesthetically blend the facility to the immediate surroundings and to minimize its visual impact. This should include, but not be limited to, a description of proposed concealment techniques, sizing and placement of elements of the facility (including undergrounding proposed), measures proposed to limit visibility of the facility from residential dwelling units, and the textures and colors to be used in the concealment process. If none, so state.
- Boring will be used for excavation of trenches and related hand holes. See project plans, sheets A1 and A2. vi) A description of any ground disturbance necessary to complete the proposed project.
- vii) A description of the site and any deployment outside the site necessary to complete the proposed project. N/A
- viii) If a collocation, a description of why this installation qualifies as a collocation within the meaning of the FCC rules. Applicant must also provide the following:
- Not a collocation (1) A description of all installation procedures and plans for the facility; and

- (2) A description of all changes to be made to the existing structure, which description will, among other things, identify precisely what changes will be made to the supporting structure.

### c) Prior Approvals/Permits

N/A - no existing wireless facility

- i) If a wireless facility already exists on the site, provide the following:
- (1) A copy of all approvals and/or permits for the tower or base station that is to be modified, and any subsequent modification approvals and/or permits, and of any required conditions (imposed by the City and/or third party) placed on the initial or subsequent approvals and/or permits.
  - (2) A showing that the facility, as modified, will be in compliance with existing conditions, whether or not it is in compliance with conditions as of the date of application. There must be a plan submitted for correction of any non-compliant condition.

### d) Site Plan

See project plans

- i) Three (3) copies of a facility site plan at a scale of 1"=20' or larger and including the following:
- (1) A north-pointing arrow on each plan sheet;
  - (2) Title block with applicant's name, owner's name, and contact information;
  - (3) Depiction of the fully-constructed proposed facility;
  - (4) Location of lot lines, streets (with street names), easements, and all structures and improvements, including accessory equipment, underground utilities and support structures, existing and proposed;
  - (5) Existing and proposed elevations of all facilities, equipment, support structures, appurtenances, and other related structures
  - (6) Slopes, contours, trees and other pertinent physical features of the site, existing and proposed;
  - (7) All exterior lighting on the site, existing and proposed;
  - (8) Location use and approximate distance from property lines of the nearest structures on all properties abutting the site; and
  - (9) The location of parking for maintenance personnel.

N/A

### e) Landscape Plan

- i) If any landscaped ground will be disturbed, three (3) copies of a landscape plan for the site, at a scale of 1/8"=1' or larger, and including the following:
- (1) Existing trees within fifty feet (50') of the proposed wireless communication facility;
  - (2) Species, diameter and condition of all such trees;

- (3) Final disposition of all existing trees; and
- (4) Species, location and sizes of trees and other vegetation proposed to be installed in conjunction with the wireless communication facility.

#### **f) Site Photograph(s)**

See Photosimulations i) Current color photographs of the site and its surroundings.

#### **g) Visual Impact Analysis**

See visual impact analysis i) A visual impact analysis, which shall include photomontage, photo simulation or similar technique, demonstrating, from all four primary directions (north, south, east, and west) the potential visual impacts of the proposed facility. Consideration shall be given to views from public areas as well as from private property. The analysis shall assess the cumulative impacts of the proposed wireless communication facility and other existing wireless facilities in the area, and shall identify and include all feasible mitigation measures consistent with the technological requirements of the proposed facility.

#### **h) Noise**

See noise study i) Operation of wireless facilities shall comply with the noise regulations set in Chapters 9.04 and 9.07 of the Code and the noise element of the General Plan. Demonstrate compliance by providing, among other relevant information, a description of the facilities and/or equipment within the applicant's project that are expected to induce or generate noise, as well as anticipated noise levels of said facilities and/or equipment. For facilities that generate noise, please provide testing data for noise assuming maximum facility utilization and operational utilization (worst case) 10 feet from the source. Specify times and conditions during which noise generation will occur.

#### **i) FCC Radio Frequency Standards**

See EME - RF Study i) A report signed by a California licensed professional engineer with expertise in radio communications facilities and the calculation of radio frequency emissions that affirms, under penalty of perjury, that the proposed installation will be compliant with the FCC's standards. The report must also contain the following:

- (1) A description of each of the proposed antennas and all related fixtures, structures, appurtenances and apparatus, including the height above grade, volume in total cubic feet, materials, lighting, and the directionality of each antenna (e.g., omni, directional, etc.);

- (2) The frequency, modulation and class of service;
- (3) A clear identification of areas, both vertically and horizontally, where exposure levels will exceed FCC standards for general public and occupational exposures. Please note that applicant's analysis must show that it has appropriately taken cumulative exposures into account, and should show exposures based on "worst case" scenarios;
- (4) A certification that the facility will comply with all applicable standards for radio frequency emissions, including cumulative effects, and a description of the manner in which the radio frequency emissions for the facility were calculated and the results of those calculations. Individual and cumulative emissions should be evaluated; and
- (5) If the certification of the facility as currently installed, or as proposed to be modified, is subject to conditions designed to limit general public or occupational exposure, identify those conditions, and demonstrate that they have been satisfied, or describe when they will be satisfied.

#### **j) Structural Analysis**

- See Structural Analysis
- i) A report signed by a California licensed professional engineer qualified in structural engineering, containing the following:
    - (1) In the case of a wireless facility attached to existing infrastructure, documentation of the ability of the structure to support the antennas, the proposed method of affixing the antennas and the precise point at which the antennas shall be mounted;
    - (2) In the case of a facility with a support structure (e.g. monopole), documentation that the structure is capable of supporting the antennas (and any other equipment to be attached to or supported by the support structure) and complies with applicable laws and codes, as well as the structure's capacity for additional collocated antennas, and the precise point at which the antennas shall be mounted; and
    - (3) A certification that the structure(s) on which the wireless facility (including all accessory equipment, such as radios, cabinets, etc.) will be placed can safely support the wireless facility; and that all elements of the wireless facility comply with applicable safety standards, including, without limitation, GO 95, 165, and 166.

#### **k) Notice**

- i) Evidence that notice has been given consistent with Attachment 1 to all necessary parties.

**I) Justification for Location/Collocation**

See Alternate Site Analysis

- i) A justification as to why the applicant chose the location for the proposed wireless communication facility. Such justification shall include a written assessment of not less than two (2) alternative locations considered by the applicant and the reasons why said alternative locations were rejected as candidates.
- ii) A written explanation of the applicant’s investigation into collocating the proposed facility with an existing facility. Indicate whether collocation is or is not feasible and why.

**m) Map of Applicant’s Existing Wireless Facilities and Coverage Assessment**

See RF Propagation Maps

- i) A map and narrative description of all existing wireless facility sites used by the applicant which are located within the City, and any wireless facility sites located outside of the City but which provide coverage within any part of the City.


**4. WAIVER REQUEST [if applicable]**

N/A

- a) If it is contended that the City is required by federal or state law to approve the facility, applicant must submit the information it relies upon to support that claim, identifying: (i) the legal standard it claims applies; (ii) the showings it relies upon for its claim; (iii) alternative legal standards that may apply that it claims to meet; and (iv) the showings it relies upon for those claims. Applicants are cautioned that, should they choose not to submit with respect to items (iii) and (iv), and the City believes that applicant misapplies or relies on the wrong legal standard, the waiver (and consequently the application) may be denied.

**PART D: CERTIFICATION (ALL APPLICANTS)**

I (we) hereby certify under penalty of perjury that (1) after diligent investigation, the information provided pursuant to this Application Form is true, accurate, and complete to the best of my (our) knowledge and belief; and (2) upon completion of the work proposed, the permitted personal wireless services facility will comply with all applicable laws, regulation, practices or other requirements under federal, state, or local law, including, but not limited to, building and electrical codes, the FCC’s radio frequency emissions standards, and the requirements of the Americans with Disabilities Act.

	10-28-19
Applicant’s Signature	Date

Adrian Culici  
 \_\_\_\_\_  
 Applicant’s Printed Name



## Attachment 1

All applicants for Wireless Encroachment Permits shall comply with the following notice requirements:

1. Notice of the applicant's pending application shall be mailed, by the applicant to the businesses and residences within a 500 foot radius of each of the proposed wireless facilities.
2. The contents of the mailed notice shall include, at a minimum:
  - a. A description of the location of each proposed wireless facility with sufficient specificity to allow notice recipients to be able to locate the involved location without requiring any additional information
  - b. Photo simulations of the proposed installation
  - c. The manner in which additional information may be obtained
  - d. Any other information deemed necessary by the Director of Public Works or his/her designee
3. The applicant shall also post the notice in compliance with the following specifications:
  - a. In a conspicuous place at the location of the proposed wireless facility
  - b. Be 12 square feet in sign area
  - c. A minimum of 4 feet in height from the ground level with a maximum height of 8 feet
  - d. Not be illuminated
  - e. Include the name and telephone number of the applicant
  - f. Include the telephone number of the Public Works Department
  - g. Contain only lettering whose size, style and color have been approved by the Director of Public Works
  - h. Include photo simulations of the proposed wireless facility
  - i. Remain in place until completion of construction and final approval by the City
  - j. Be removed, by the applicant, no later than 10 days after completion of construction and final approval of the project by Culver City
4. Submit to the Director of Public Works an affidavit verifying that the applicant has mailed and posted notices in full compliance with these notice requirements.



# Small Cell LDRAH 01

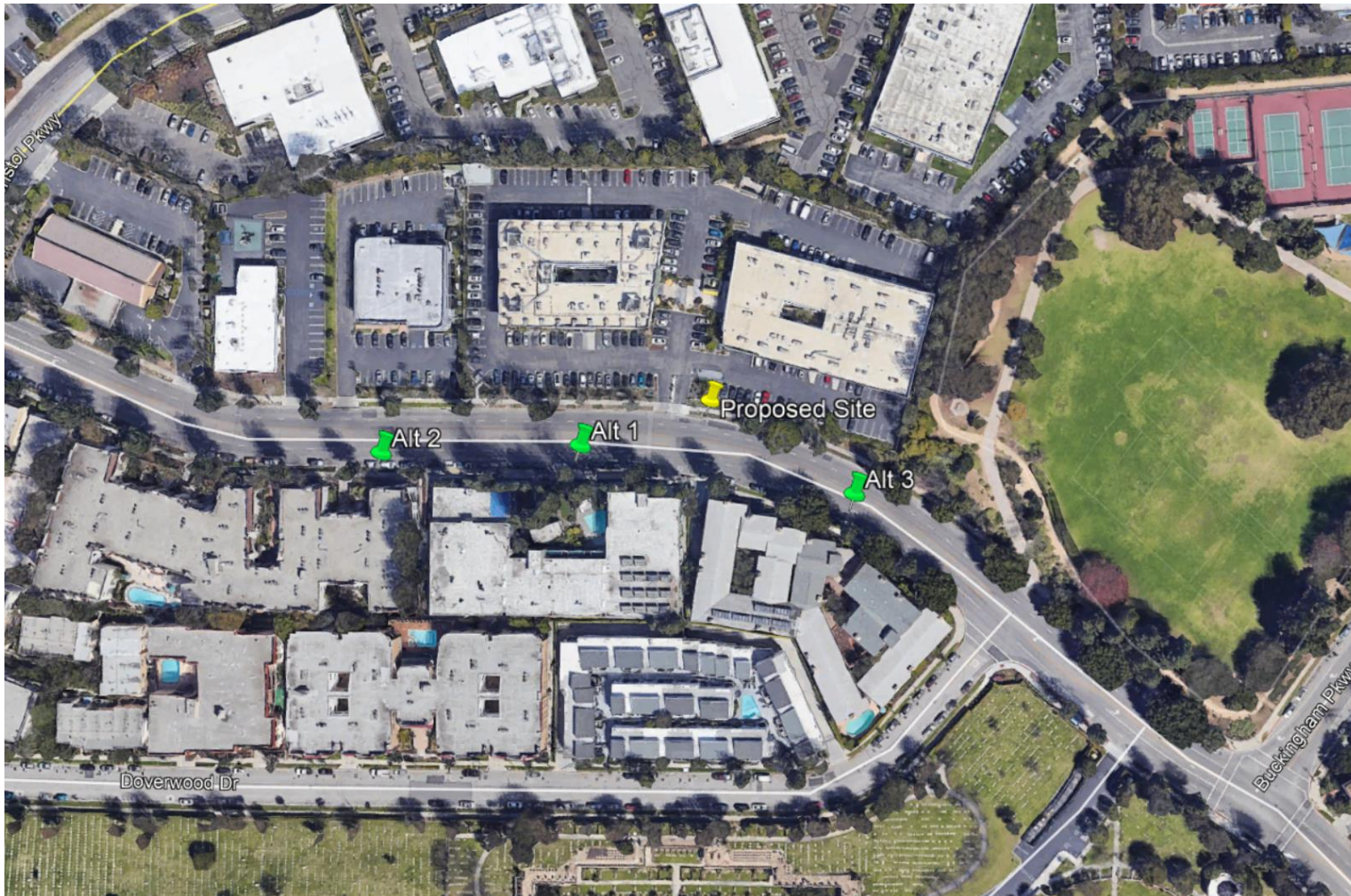
## Culver City - Alternative Sites Analysis



## Proposed Small Cell LDRAH 01

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Culver City, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than construct several additional macro facilities throughout the residential neighborhoods of Culver City, AT&T is choosing to deploy very small facilities, called “small cells,” that can be deployed on utility infrastructure in the public rights-of-way.
- A small cell is a low-powered cell site, which, when grouped with other small cells, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each small cell antenna spans over a shorter range than a conventional macro site, small cells can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- Small Cell LDRAH 01 will help close AT&T’s significant service coverage gap in this portion of the County by the least intrusive means.

## Map of Proposed Small Cell LDRAH 01 and Alternative Sites



On this aerial map, AT&T's Proposed Small Cell LDRAH 01 is designated as **Proposed Site** and the alternative sites are identified by **Alt 1**, **Alt 2** and **Alt 3**.





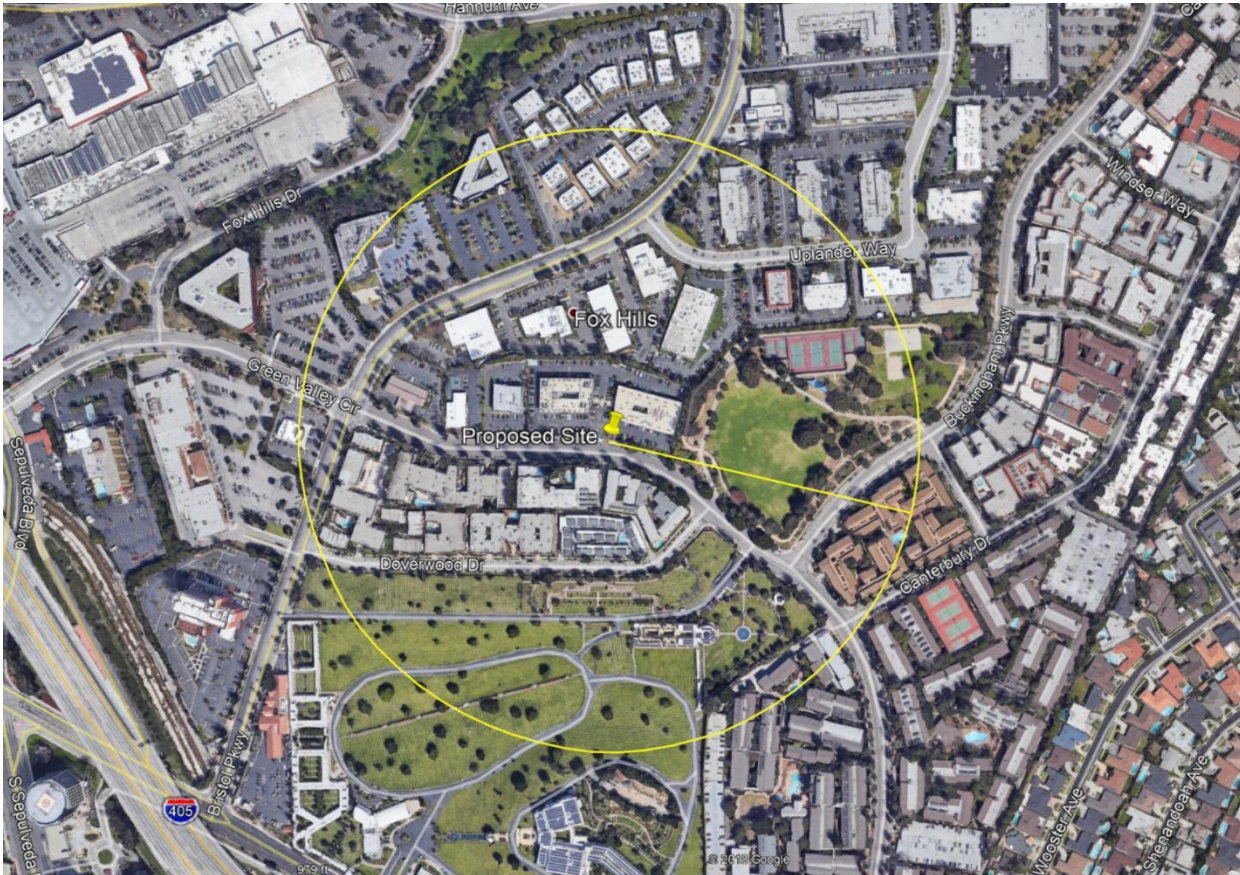
# Proposed Small Cell LDRAH 01



- Proposed Small Cell LDRAH 01 will be located in the public right-of-way on an existing wood utility pole near 5839 Green Valley Circle (Lat/Long: 33.983236, -118.388206).
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective.
- AT&T identified this as the least intrusive alternative.



# Small Cell LDRAH 01 – Collocation Alternatives



- AT&T first examined the area for collocation possibilities on existing Wireless Telecommunications Facilities (“WTF”) in the vicinity for establishing Small Cell LDRAH 01.
- Upon review of the area within 1000’, AT&T determined that there are no existing WTF’s available for a small cell collocation in the vicinity.







## Small Cell LDRAH 01 – Alternative 1



- This Alternative to Small Cell LDRAH 01 would be to locate on a utility pole in the public right-of-way near 5926 Green Valley Cir, (Lat/Long: 33.983236, -118.388206).
- This pole is a viable alternative to help close AT&T's significant service coverage gap, in that power and necessary utilities are available at the location.
- This alternate is closer to habitable structures than the proposed (15' vs 75'), thus its visual impact is greater.





## Small Cell LDRAH 01 – Alternative 2



- This Alternative to Small Cell LDRAH 01 would be to locate on a utility pole in the public right-of-way near 5875 Green Valley Cir, (Lat/Long: 33.983079, -118.389359).
- This pole is a viable alternative to help close AT&T's significant service coverage gap, in that power and necessary utilities are available at the location.
- This alternate is closer to habitable structures than the proposed (15' vs 75'), thus its visual impact is greater.



## Small Cell LDRAH 01 – Alternative 3



- This Alternative to Small Cell LDRAH 01 would be to locate on a utility pole in the public right-of-way near 5839 Green Valley Cir, (Lat/Long: 33.983001, -118.387950).
- This pole is a viable alternative to help close AT&T's significant service coverage gap, in that power and necessary utilities are available at the location.
- This alternate is closer to habitable structures than the proposed (125' vs 75'), thus its visual impact is greater.



## Proposed Small Cell LDRAH 01 - Conclusion

- Proposed Small Cell LDRAH 01 is an integral part of an overall small cell solution to help close AT&T's significant service coverage gap in this portion of Los Angeles County.
- Small Cell LDRAH 01 will provide wireless telecommunications services and faster data rates to the area businesses, residences & visitors.
- Small Cell LDRAH 01 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low-profile equipment to utility infrastructure in the public right-of-way.





# LDRAH - 01

5839 Green Valley Cir., Culver City, CA 90230



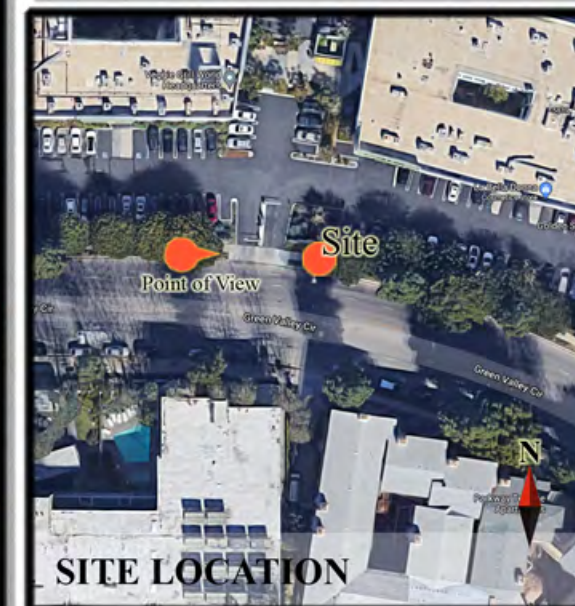
Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



**PROPOSED VIEW WEST**



**EXISTING VIEW WEST**



**SITE LOCATION**

**SITE COORDINATES**

**Latitude:** 33.983236°

**Longitude:** -118.388206°

**SHEET NUMBER**

1  
2





# LDRAH - 01

5839 Green Valley Cir., Culver City, CA 90230



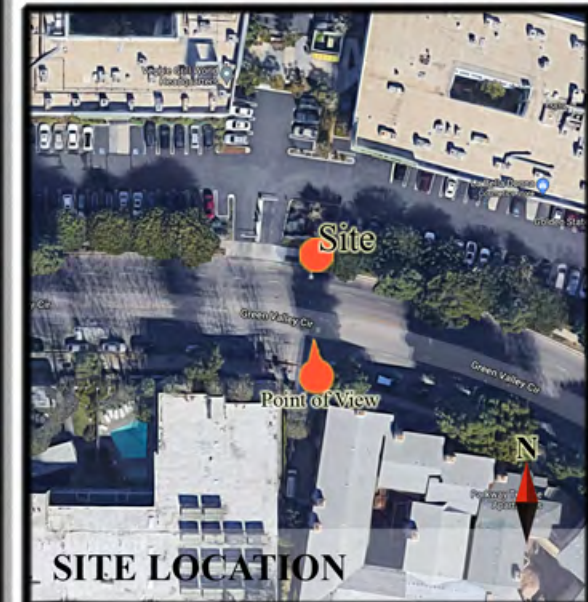
Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



PROPOSED VIEW SOUTH



EXISTING VIEW SOUTH



SITE LOCATION

**SITE COORDINATES**  
**Latitude:** 33.983236°  
**Longitude:** -118.388206°

**SHEET NUMBER** 2  
2





# LDRAH - 01

5839 Green Valley Cir., Culver City, CA 90230



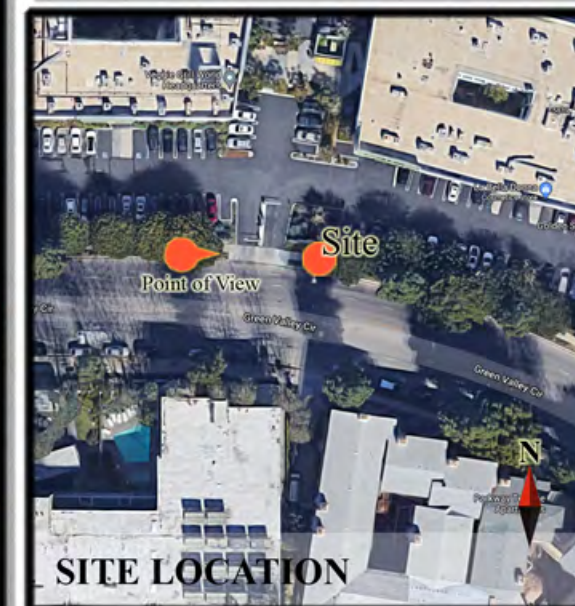
Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



**PROPOSED VIEW WEST**



**EXISTING VIEW WEST**



**SITE LOCATION**

### SITE COORDINATES

**Latitude:** 33.983236°

**Longitude:** -118.388206°

**SHEET NUMBER**

1  
2





# LDRAH - 01

5839 Green Valley Cir., Culver City, CA 90230



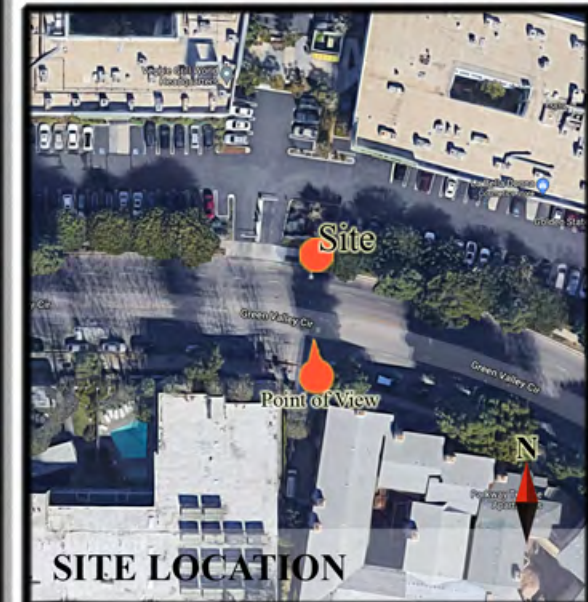
Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



**PROPOSED VIEW SOUTH**



**EXISTING VIEW SOUTH**



**SITE LOCATION**

**SITE COORDINATES**  
**Latitude:** 33.983236°  
**Longitude:** -118.388206°

**SHEET NUMBER** 2  
2



# EXHIBIT H1-A

**SITE NAME: LDRAH - 001A**  
**SITE NUMBER: CRAN - RLOS - LDRAH - 001A**  
**PROJECT: CRAN / SMALL CELL**  
**USID: 268955**  
**PACE #: MRLOS058644**

1. THE EQUIPMENT SHALL BE REMOVED, AND THE SITE RETURNED TO ORIGINAL CONDITION IF CARRIER ABANDONS SITE.

**CITY NOTES**

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- 2019 CALIFORNIA ADMINISTRATIVE CODE
- 2019 CALIFORNIA BUILDING CODE
- 2019 CALIFORNIA ELECTRIC CODE
- 2019 CALIFORNIA MECHANICAL CODE
- 2019 CALIFORNIA PLUMBING CODE
- 2019 CALIFORNIA FIRE CODE
- ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOVE
- CITY/COUNTY ORDINANCES

HANDICAP REQUIREMENTS:  
 FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA ADMINISTRATIVE STATE CODE PART 2, TITLE 24, CHAPTER 11B, SECTION 1103B.

**CODE COMPLIANCE**

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS NEW.

**GENERAL NOTES**



TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN CALIFORNIA (SOUTH), CALL DIG ALERT  
 TOLL FREE: 1-800-422-4133 OR www.digalert.org

CALIFORNIA STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

**Know what's below. Call before you dig.**

PROPERTY OWNER: PUBLIC RIGHT OF WAY  
 POLE OWNER: CULVER CITY  
 POWER PROVIDER: SOUTHERN CALIFORNIA EDISON (SCE)  
 P.O. BOX 700  
 ROSEMEAD, CA 91770  
 CONTACT: YOLANDA HUNTER  
 PHONE: (909) 477-6471

APPLICANT: AT&T  
 ADDRESS: 1452 EDINGER AVE.  
 TUSTIN, CA 92780

LATITUDE (NAD83): 33° 58' 59.65" N  
 33.983236°

LONGITUDE (NAD 83): 118° 23' 17.54" W  
 -118.388206°

LONGITUDE/LATITUDE TYPE: NAD 83

GROUND ELEVATION (NAVD 88): ±81.63' AMSL

ADJACENT APN #: 4134-005-013

JURISDICTION: CULVER CITY

CURRENT ZONING: PUBLIC RIGHT OF WAY

NEW USE: UNMANNED TELECOMMUNICATIONS

**SITE INFORMATION**

PROJECT MANAGER: EUKON  
 1919 WILLIAMS STREET, SUITE 360  
 SIMI VALLEY, CA 93065  
 CONTACT: CHRISTOPHER AYLIA  
 PHONE: (805) 864-0378  
 EMAIL: Christopher.Ayia@eukongroup.com

OSP ENGINEER: EUKON  
 65 POST, SUITE 1000  
 IRVINE, CA 92615  
 CONTACT: AARON JONES  
 PHONE: (949) 547-2077  
 EMAIL: Aaron.Jones@eukongroup.com

SAC/ZONING/PERMITTING: EUKON  
 1919 WILLIAMS STREET, SUITE 360  
 SIMI VALLEY, CA 93065  
 CONTACT: BARDO OSORIO  
 (714) 702-0566  
 EMAIL: bardo.osorio@eukongroup.com

CONSTRUCTION MANAGER: BOUCHARD COMMUNICATIONS  
 11231 BURBANK BLVD.  
 NORTH HOLLYWOOD, CA 91601  
 CONTACT: KIRK BOUCHARD  
 PHONE: (818) 761-2154  
 EMAIL: kb@boucharddcommunication.com

RF ENGINEER: AT&T  
 1452 EDINGER AVE.  
 TUSTIN, CA 92780  
 CONTACT: TEJ BURGULA  
 EMAIL: tb861h@att.com

SENIOR TECHNICAL PROJECT MANAGER: AT&T  
 1452 EDINGER AVE., 2ND FLOOR,  
 TUSTIN, CA 92780  
 CONTACT: OMAR MERE  
 EMAIL: om5039@att.com

**PROJECT TEAM**

**APPROVED**  
 for compliance with  
 Engineering Division requirements  
 See Below  
 Date

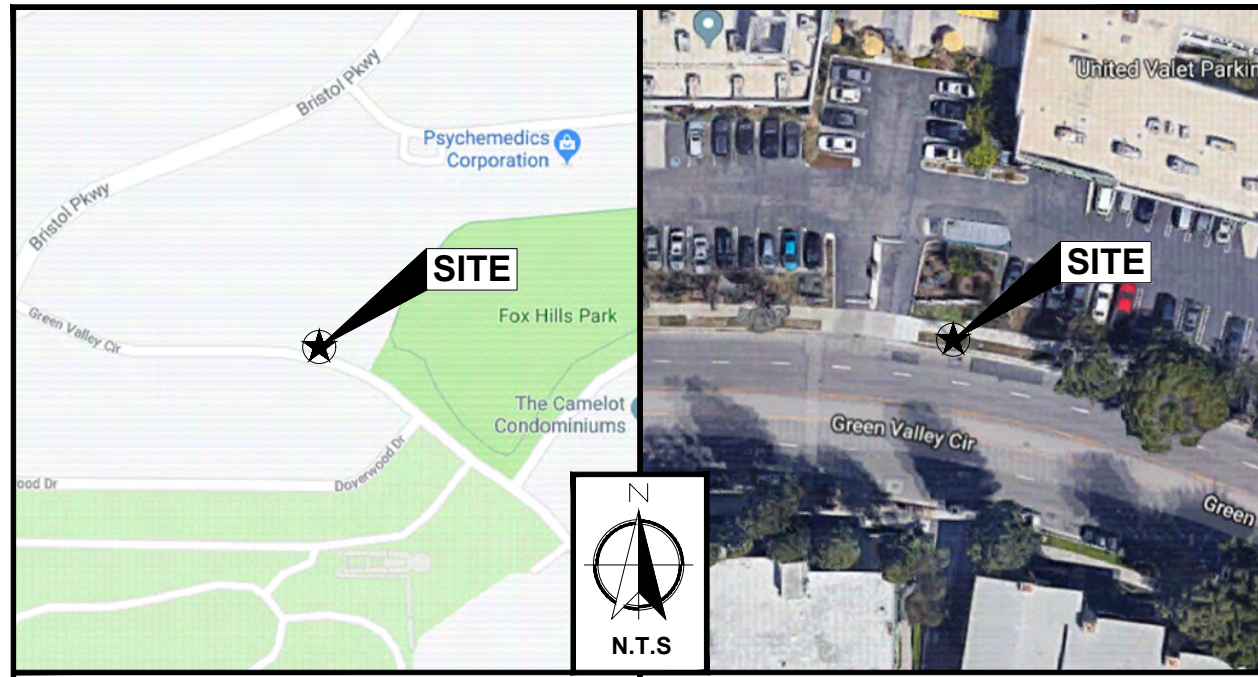


CITY OF CULVER CITY

Permit number U19-0439.  
 Approved on 02/14/2021. Call  
 PW Inspector before starting  
 work: 310-253-5600



**PICO / REPLACEMENT DAVIT STEEL  
 STREET LIGHT  
 POLE I.D. # : SL-L9-12  
 5839 GREEN VALLEY CIR.  
 CULVER CITY, CA 90230**



**VICINITY MAP**                      **LOCAL MAP**

DIRECTIONS FROM AT&T OFFICE: HEAD NORTHEAST TOWARD AT&T. TURN LEFT TOWARD AT&T. TURN RIGHT ONTO AT&T. TURN LEFT ONTO EDINGER AVE. USE THE LEFT 2 LANES TO TURN LEFT ONTO THE STATE ROUTE 55 S RAMP. MERGE ONTO STATE RTE 55 S. USE THE RIGHT 2 LANES TO TAKE EXIT 6A TO MERGE ONTO I-405 N. KEEP LEFT AT THE FORK TO STAY ON I-405 N. TAKE EXIT 49B TO MERGE ONTO SEPULVEDA BLVD TOWARD SLAUSON AVE. MERGE ONTO SEPULVEDA BLVD, TURN RIGHT ONTO GREEN VALLEY CIR, TURN LEFT, ARRIVE AT 5839 GREEN VALLEY CIR., CULVER CITY, CA 90230.

**DRIVING DIRECTIONS**

IF USING 11"X17" PLOT, DRAWINGS WILL BE HALF SCALE

**CONSTRUCTION DRAWING**

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & MAY IMPOSE CHANGES OR MODIFICATIONS.

APPROVED BY:	INITIALS:	DATE:
AT&T RF ENGINEER:		
AT&T OPERATIONS:		
SITE ACQUISITION MANAGER:		
PROJECT MANAGER:		
ZONING VENDOR:		
LEASING VENDOR:		
CONSTRUCTION MANAGER:		
A/E MANAGER:		
PROPERTY OWNER:		
UTILITY:		

**APPROVALS**

AT&T PROPOSES TO INSTALL A NEW WIRELESS FACILITY. THE SCOPE WILL CONSIST OF THE FOLLOWING:

- AT&T MOBILITY TO REMOVE (E) STREET LIGHT AND REPLACE WITH NEW CONCEALFAB STREET LIGHT
- AT&T MOBILITY TO INSTALL NEW FOUNDATION
- INSTALL (1) OMNI ANTENNA A TOP NEW POLE MOUNTED SHROUD
- INSTALL (3) 5G ANTENNAS
- INSTALL (2) NEW RADIO 4402 MOUNTED WITHIN NEW SHROUD
- INSTALL (1) NEW RADIO 2205 MOUNTED WITHIN NEW SHROUD
- INSTALL (1) NEW FUTURE RADIO MOUNTED WITHIN NEW SHROUD
- INSTALL (2) NEW 17"X30"X18" PULL BOXES
- INSTALL (1) NEW DISCONNECT SWITCH WITH INTEGRATED SURGE PROTECTION WITHIN PULL BOX
- INSTALL (1) 2" AT&T MOBILITY FIBER CONDUIT FROM FIBER PULL BOX TO SITE POLE
- TRENCH FOR POWER FROM PULL BOX TO SITE POLE
- TRENCH FOR FIBER FROM PULL BOX TO SITE POLE

**PROJECT DESCRIPTION**

SHEET	DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES, LEGEND AND ABBREVIATIONS
A-1	SITE PLAN
A-2	ENLARGED SITE PLAN
A-3	NEW AND EXISTING WEST ELEVATIONS
A-4	NEW AND EXISTING SOUTH ELEVATIONS
A-5	SITE IMAGE
A-6	EQUIPMENT DETAILS
A-7	CONSTRUCTION DETAILS
E-1	ELECTRICAL AND GROUNDING DETAILS
S-1	CONCEALFAB POLE DETAIL (FOR REFERENCE ONLY)
UD-1	UTILITY DESIGN
UD-2	UTILITY DESIGN
TCP-1	TRAFFIC CONTROL PLAN
TCP-2	TRAFFIC CONTROL PLAN
TCP-3	TRAFFIC CONTROL PLAN
TCP-4	TRAFFIC CONTROL PLAN
TCP-5	TRAFFIC CONTROL PLAN

**SHEET INDEX**

SUBCONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

**DO NOT SCALE DRAWINGS**

APPLICANT:



1452 EDINGER AVE.  
 TUSTIN, CA 92780

ENGINEER:



an SFC Communications, Inc. Company


65 POST, SUITE 1000  
 IRVINE, CA 92618  
 TEL: (949) 553-8566  
 www.eukongroup.com

CHECKED BY A&E: FE  
 CHECKED BY OSP: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
4	08/02/21	CITY COMMENTS	AS
3	05/27/21	FINAL POWER	FR
2	03/04/21	EQUIPMENT CHANGE PER ATT	MP
1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/2019	90% CONSTRUCTION DWG	JOJ

LICENSER:



78549  
 CIVIL  
 STATE OF CALIFORNIA

EXPIRATION DATE: 12-31-22  
 DATE SIGNED: 10-25-19

PROJECT INFORMATION:


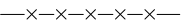




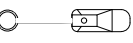
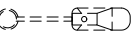













LDRAH - 001A  
 5839 GREEN VALLEY CIR.  
 CULVER CITY, CA 90230

SHEET TITLE:

**TITLE SHEET**

SHEET NUMBER:

**T-1**

SYMBOL	DESCRIPTION
EOD	EDGE OF DIRT
W/L	WHITE LINE
ROW	RIGHT OF WAY
EOP	EDGE OF PAVEMENT
C/L	CENTER LINE
C/F	CURBSFACE
P/L	PROPERTY LINE
	EXISTING CUT
	FENCE
	WALL
	DRIVEWAY
	BUSHES
	TREE
	STREET LIGHT SITE POLE
	STREET LIGHT EXISTING
	JPA SITE POLE
	UTILITY POLE EXISTING
	PARKING METER/STREET SIGN
	DOWN GUY
	FIRE HYDRANT
	UTILITY VALVE
	UTILITY MANHOLE
	SEWER MANHOLE
	SQUARE VENT
	ROUND VENT
	DIG-ALERTS
	(POC) POINT OF CURBSFACE
	ADA CURB RAMP

LEGEND AND ABBREVIATIONS

INTENT
<ol style="list-style-type: none"> <li>THESE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE DONE &amp; THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.</li> <li>THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.</li> <li>THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.</li> <li>MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.</li> </ol>
CONFLICTS
<ol style="list-style-type: none"> <li>THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED IN THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSIONS WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.</li> <li>THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING WHICH SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.</li> <li>NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.</li> </ol>
WARRANTIES & BONDS
<ol style="list-style-type: none"> <li>CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.</li> <li>SEE MASTER CONTRACTOR SERVICES AGREEMENT FOR ADDITIONAL DETAILS.</li> </ol>
STORAGE
<ol style="list-style-type: none"> <li>ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK.</li> <li>BTS CABINETS MUST BE STORED INSIDE UNTIL THERE IS POWER ON SITE.</li> <li>STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.</li> </ol>
RELATED DOCUMENTS AND COORDINATION
<ol style="list-style-type: none"> <li>GENERAL CONSTRUCTION, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.</li> </ol>
CHANGE ORDER PROCEDURE
<ol style="list-style-type: none"> <li>CHANGE ORDERS MAY BE INITIATED BY THE OWNER AND/OR THE CONTRACTOR INVOLVED. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE OWNER SHALL PREPARE A WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT TO THE OWNER WITHIN 72 HRS FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES IN THE SCOPE OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED &amp; APPROVED BY THE OWNER SHALL PLACE FULL RESPONSIBILITY OF THESE ACTIONS ON THE CONTRACTOR.</li> </ol>
SHOP DRAWINGS
<ol style="list-style-type: none"> <li>CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE DRAWINGS TO THE OWNER FOR APPROVAL.</li> <li>ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.</li> </ol>


1 GENERAL NOTES

GENERAL NOTES AND CONDITIONS
PRODUCTS & SUBSTITUTIONS
<ol style="list-style-type: none"> <li>SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.</li> <li>SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS &amp; MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.</li> </ol>
CODE COMPLIANCE
<ol style="list-style-type: none"> <li>ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE BUT NOT BE LIMITED TO THE LATEST VERSION OF THE FOLLOWING: <ul style="list-style-type: none"> <li>2019 CALIFORNIA ENERGY CODE</li> <li>2019 CALIFORNIA BUILDING CODE</li> <li>2019 CALIFORNIA ELECTRICAL CODE</li> <li>2019 CALIFORNIA FIRE CODE</li> <li>2019 CALIFORNIA GREEN BUILDING CODE</li> <li>2019 CALIFORNIA MECHANICAL CODE</li> <li>2019 CALIFORNIA PLUMBING CODE</li> <li>G095/G0128</li> </ul> </li> </ol>
INSURANCE AND BONDS
<ol style="list-style-type: none"> <li>CONTRACTOR SHALL AT THEIR OWN EXPENSE CARRY AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL INSURANCE AS REQUIRED AND LISTED.</li> <li>CONTRACTOR SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER.</li> <li>THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.</li> <li>REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.</li> </ol>
ADMINISTRATION
<ol style="list-style-type: none"> <li>BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL BE DEVELOPING A MASTER SCHEDULE FOR THE PROJECT WHICH WILL SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.</li> <li>SUBMIT A BAR TYPE PROGRESS CHART NOT MORE THAN THREE (3) DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OF WORK TO BE PERFORMED AT THE SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK &amp; SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE SITE.</li> <li>PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE (THOUGH NOT LIMITED TO) THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).</li> <li>CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.</li> <li>DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL AT&amp;T MOBILITY SAFETY REQUIREMENTS IN THEIR AGREEMENT.</li> <li>PROVIDE WRITTEN DAILY UPDATES AND PHOTOGRAPHS OF ON SITE PROGRESS TO THE PROJECT MANAGER VIA E-MAIL.</li> <li>A COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.</li> <li>NOTIFY THE OWNER / PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.</li> <li>CLOSEOUT PACKAGE IS DUE COMPLETE WITH DETAILED TOP PHOTOS UPON SITE PUNCHWALK WITH PROJECT MANAGER (SEE PROJECT MANAGER FOR SAMPLE CLOSEOUT PACKAGE).</li> </ol>
CLEAN UP
<ol style="list-style-type: none"> <li>THE CONTRACTOR SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK. AT THE COMPLETION OF THE WORK, THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY FOR USE.</li> <li>VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES &amp; OTHER FOREIGN MATTER.</li> <li>REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.</li> <li>IF NECESSARY TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.</li> </ol>

2

GENERAL NOTES:
<ol style="list-style-type: none"> <li>INDEMNIFICATION CLAUSE: THE CONTRACTOR AGREES AND SHALL: <ul style="list-style-type: none"> <li>ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THAT THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNITY AND HOLD AT&amp;T MOBILITY, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.</li> <li>PRIOR TO THE BEGINNING OF ANY CONSTRUCTION AND THROUGHOUT THE COURSE OF CONSTRUCTION WORK, THE CONTRACTOR SHALL FULLY COMPLY WITH "CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH" ACT OF 1973 INCLUDING ALL REVISIONS AND AMENDMENTS THERETO.</li> <li>ALL WORK SHALL CONFORM TO THE LATEST EDITION OF GO 95, 128, AND THE STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", AS ADOPTED BY THE CITY, COUNTY OR STATE AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.</li> <li>THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCIES FACILITIES AS SHOWN HEREON ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST. THE CONTRACTOR SHALL VERIFY PRIOR TO THE START OF CONSTRUCTION AND SHALL USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY OR AGENCY FACILITIES WITHIN THE LIMITS OR WORK, WHETHER THEY ARE SHOWN ON THIS PLAN OR NOT.</li> <li>THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (800) 422-4133, AT LEAST TWO WORKING DAYS PRIOR TO THE START OF ANY EXCAVATION.</li> <li>THE CONTRACTOR SHALL NOTIFY THE CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT AT LEAST TWO DAYS BEFORE THE START OF ANY WORK REQUIRING THEIR INVOLVEMENT.</li> <li>ALL WORK AREA AND STREET TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE WORK AREA TRAFFIC CONTROL BOOK AND SPECIFICATIONS FROM THE CITY, COUNTY OR STATE.</li> <li>THE CITY, COUNTY OR STATE SHALL SPECIFY THE EXPIRATION PERIOD OF THE PERMIT FOR THIS CONSTRUCTION PROJECT.</li> <li>THE MINIMUM COVER FOR ALL CONDUITS PLACED UNDERGROUND SHALL BE 36 INCHES TO THE FINISHED GRADE AT ALL TIMES.</li> <li>THE CONTRACTOR SHALL HDD OR OPEN TRENCH ALL CURB AND GUTTERS, CONCRETE DRIVEWAYS AND WALKWAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE INSPECTOR.</li> <li>ALL AC, AND/OR CONCRETE PAVEMENT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEERS.</li> <li>ALL SHRUBS, PLANTS OR TREES THAT HAVE BEEN DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK, SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.</li> <li>IF DAMAGE OCCURS TO THE CITY OR COUNTY FACILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY, TRAFFIC CONTROL LIGHTING AND STREET LIGHTING</li> <li>AT LEAST TWO DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK, NOTIFY THE POLICE TRAFFIC BUREAU AND THE FIRE DEPARTMENT;</li> <li>THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROCESSING OF ALL APPLICATION PERMIT FORMS ALONG WITH THE REQUIRED LIABILITY INSURANCE FORMS, CLEARLY DEMONSTRATING THAT THE CLIENT, THE CITY, COUNTY OR STATE AS ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE IN THE AMOUNT OF \$ 1,000,000.00 FOR THIS CONSTRUCTION PROJECT.</li> <li>VAULTS, PEDESTALS, CONDUITS AND OTHER TYPES OF SUBSTRUCTURE ARE EITHER SPECIFIED ON THIS PLAN OR WILL BE SPECIFIED BY THE CONSTRUCTION ENGINEER. ANY AND ALL DEVIATIONS FROM THE SPECIFIED TYPES OF MATERIAL MUST BE APPROVED BY THE SYSTEM ENGINEER, IN WRITING BEFORE INSTALLATION THEREOF.</li> <li>ALL U.G. CONDUIT MUST BE SCHEDULE 40 OR BETTER.</li> <li>CONDUIT REQUIREMENTS: <ul style="list-style-type: none"> <li>UG-SCHEDULE 40 EXCEPT ALL RADIUS CONDUITS TO BE SCH. 80 RISERS-SCHEDULE 80.</li> </ul> </li> <li>GROUND REQUIREMENTS: <ul style="list-style-type: none"> <li>5/8" ROD-10' LENGTH</li> <li>#2 GROUND WIRE</li> <li>WOOD MOLDING, STAPLED EVERY 3' AND AT EACH END GROUNDS 2' FROM POLE.</li> </ul> </li> <li>POWER REQUIREMENT FOR 3 WIRE SERVICE 120/240V.</li> <li>CONTRACTOR SHALL NOTIFY POWER &amp; TELCO COMPANIES THREE DAYS PRIOR TO START OF CONSTRUCTION FOR CONDUIT INSPECTION.</li> <li>ANY AND ALL PROPOSED SITE MODIFICATIONS, EXPANSION, OR REARRANGEMENT OF THIS CELLULAR SITE MUST BE COMPLIANT WITH ALL GO 95, AND GO 128 REGULATIONS AS PRESCRIBED BY STATE LAW. FUTURE EXPANSION OF THIS CELLULAR SITE MUST BE APPROVED BY THE DESIGNING ENGINEERING FIRM OR AN EQUALLY QUALIFIED ENGINEERING COMPANY.</li> </ul> </li> </ol>

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:




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REVISIONS:			
REV	DATE	DESCRIPTION	BY
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LICENSER:



EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRAH - 001A

5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

SHEET TITLE:

GENERAL NOTES, LEGEND AND ABBREVIATIONS

SHEET NUMBER:

T-2



**NOTES:**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPERTY OWNER & NECESSARY UTILITY COMPANIES FOR THE LOCATION OF ALL EXISTING BELOW GRADE UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE COSTS ASSOCIATED WITH EXISTING BELOW GRADE UTILITIES.
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.
- CONTRACTOR TO VERIFY LOCAL UTILITY REQUIREMENTS FOR DEPTH, SIZE & SEPARATION OF CONDUITS PRIOR TO INSTALLATION. NOTIFY CONSTRUCTION MANAGER IMMEDIATELY OF ANY DISCREPANCIES.
- CONTRACTOR TO CALL DIG ALERT (800)-227-2600 A MINIMUM OF 48 HRS PRIOR TO EXCAVATING FOR UNDERGROUND UTILITY LOCATIONS. CONTRACTOR IS RESPONSIBLE TO HAVE ALL NONPUBLIC UTILITIES LOCATED AT THEIR OWN EXPENSE.
- NEW UTILITY SERVICES SHOWN NEED TO BE VERIFIED & APPROVED BY UTILITY COMPANIES BEFORE START OF CONSTRUCTION. CONTRACTOR TO VERIFY WITH CLIENT PROJECT MANAGER TO OBTAIN FINAL APPROVAL.
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**NOTE TO CONTRACTOR:**

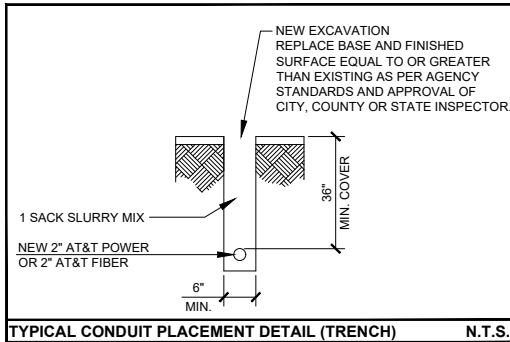
CONCRETE SIDEWALKS SHALL BE SAWCUT TO THE NEAREST SCORE MARK AND BE REPLACED EQUAL IN DIMENSION TO THAT REMOVED.

**NOTE:**

CONTRACTOR TO ALLOW INGRESS AND EGRESS TO DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.

**NOTE:**

PUBLIC SIDEWALK SHALL ALWAYS BE OPEN AND ACCESSIBLE TO PEDESTRIANS.



**UNDERGROUND UTILITIES NOTE:**

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**UTILITY LINETYPE LEGEND:**

POWER	_____	E	_____
PHONE	_____	T	_____
WATER	_____	W	_____
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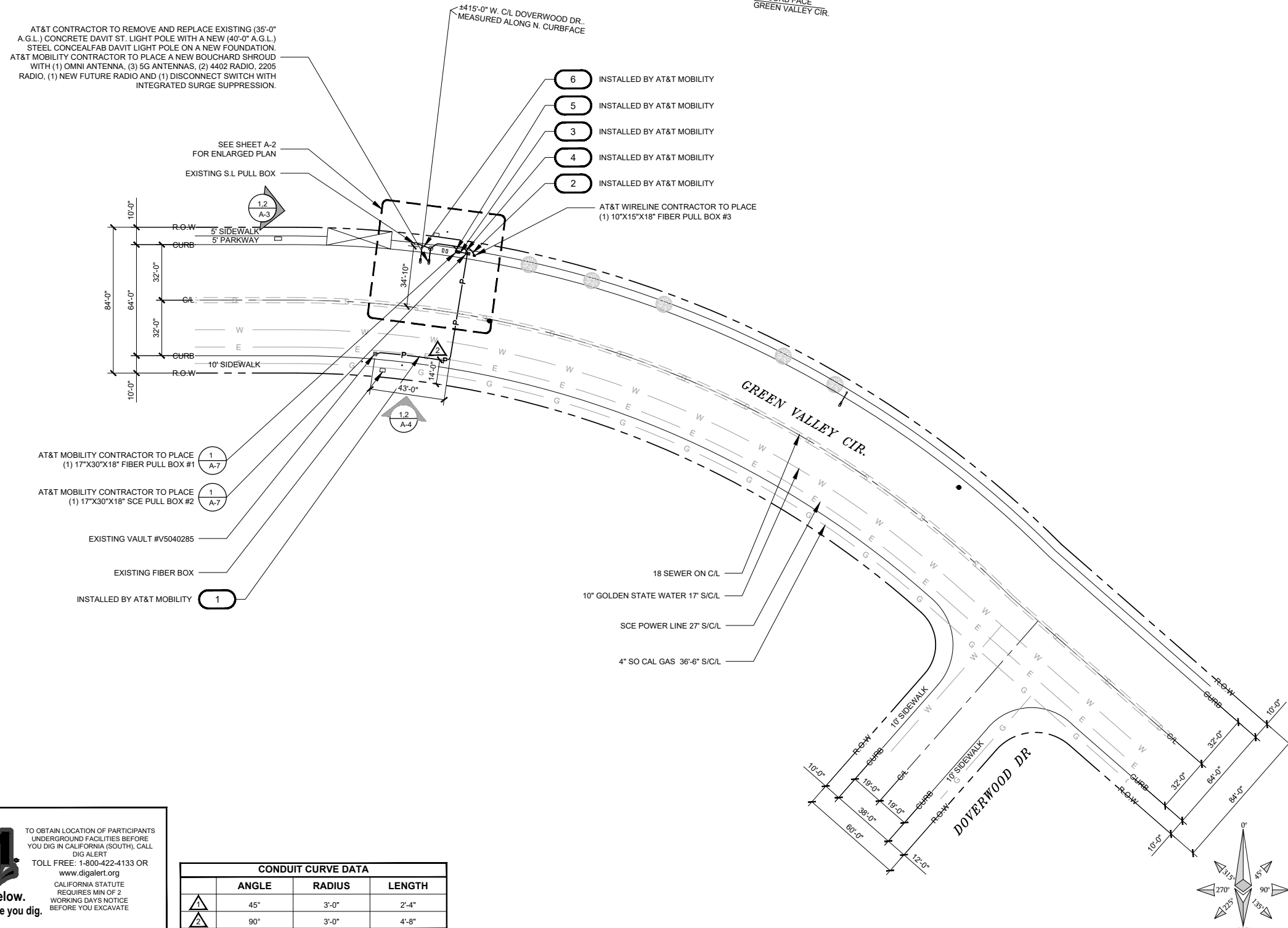
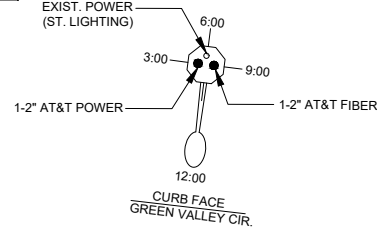
TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN CALIFORNIA (SOUTH), CALL DIG ALERT TOLL FREE: 1-800-422-4133 OR www.digalert.org

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Know what's below. Call before you dig.

NEW ITEM #	DESCRIPTION
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NEW PULL BOX LOCATION		
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**CONDUIT CURVE DATA**

	ANGLE	RADIUS	LENGTH
1	45°	3'-0"	2'-4"
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CHECKED BY A&E: FE  
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**REVISIONS:**

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LICENSER:

EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRAH - 001A

5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

A-1

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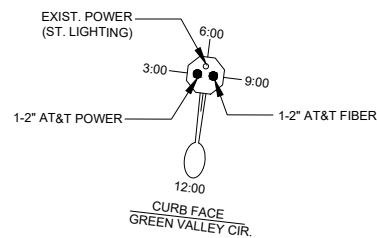
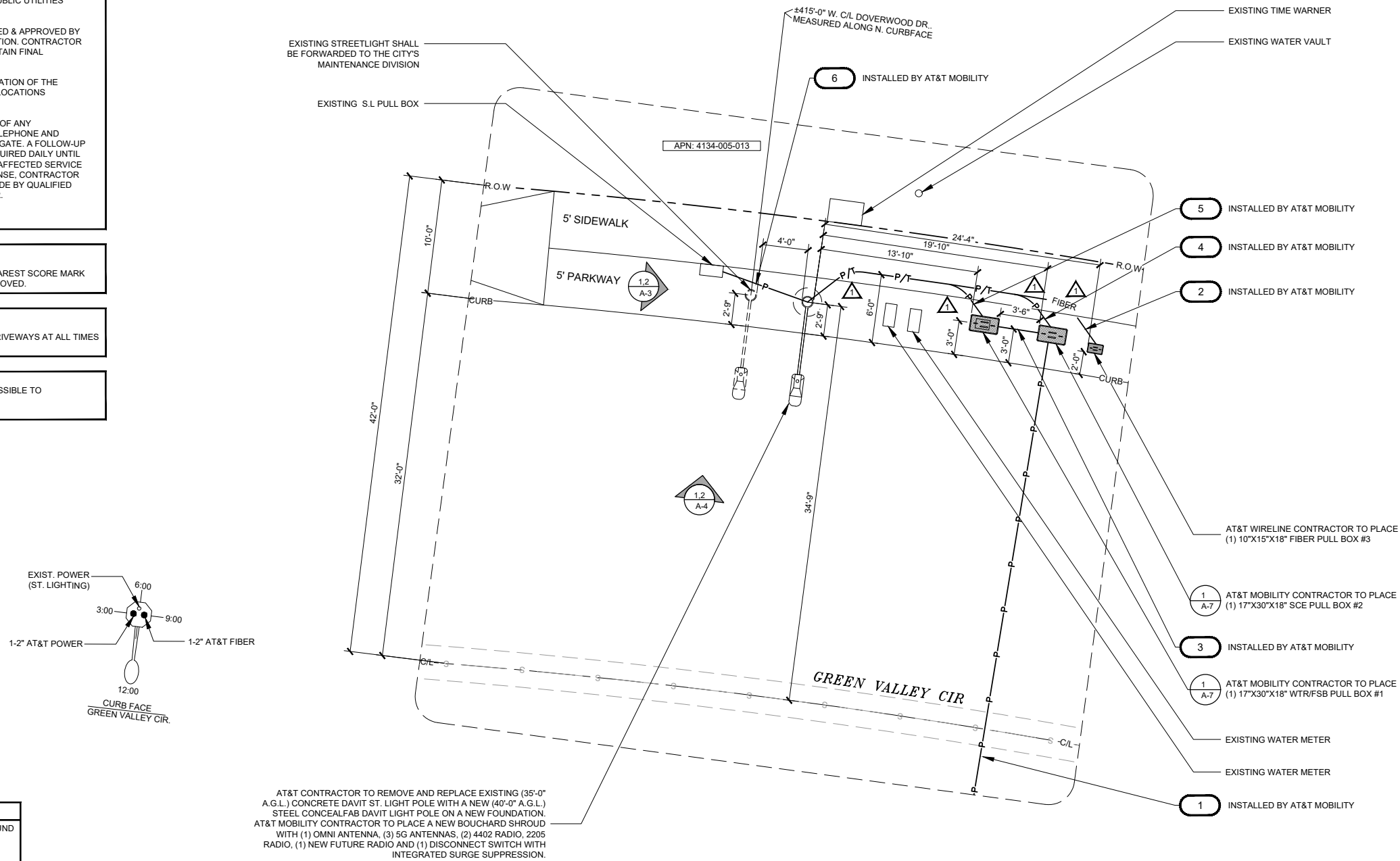
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**811**

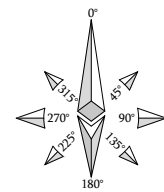
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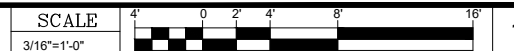
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ENLARGED SITE PLAN



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LDRAH - 001A

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CULVER CITY, CA 90230

SHEET TITLE:

ENLARGED SITE PLAN

SHEET NUMBER:

A-2

APPLICANT:



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CHECKED BY OSP: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
4	08/02/21	CITY COMMENTS	AS
3	05/27/21	FINAL POWER	FR
2	03/04/21	EQUIPMENT CHANGE PER ATT	MP
1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/2019	90% CONSTRUCTION DWG	JOJ

LICENSER:



EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRAH - 001A  
5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

SHEET TITLE:

NEW AND EXISTING  
WEST ELEVATIONS

SHEET NUMBER:

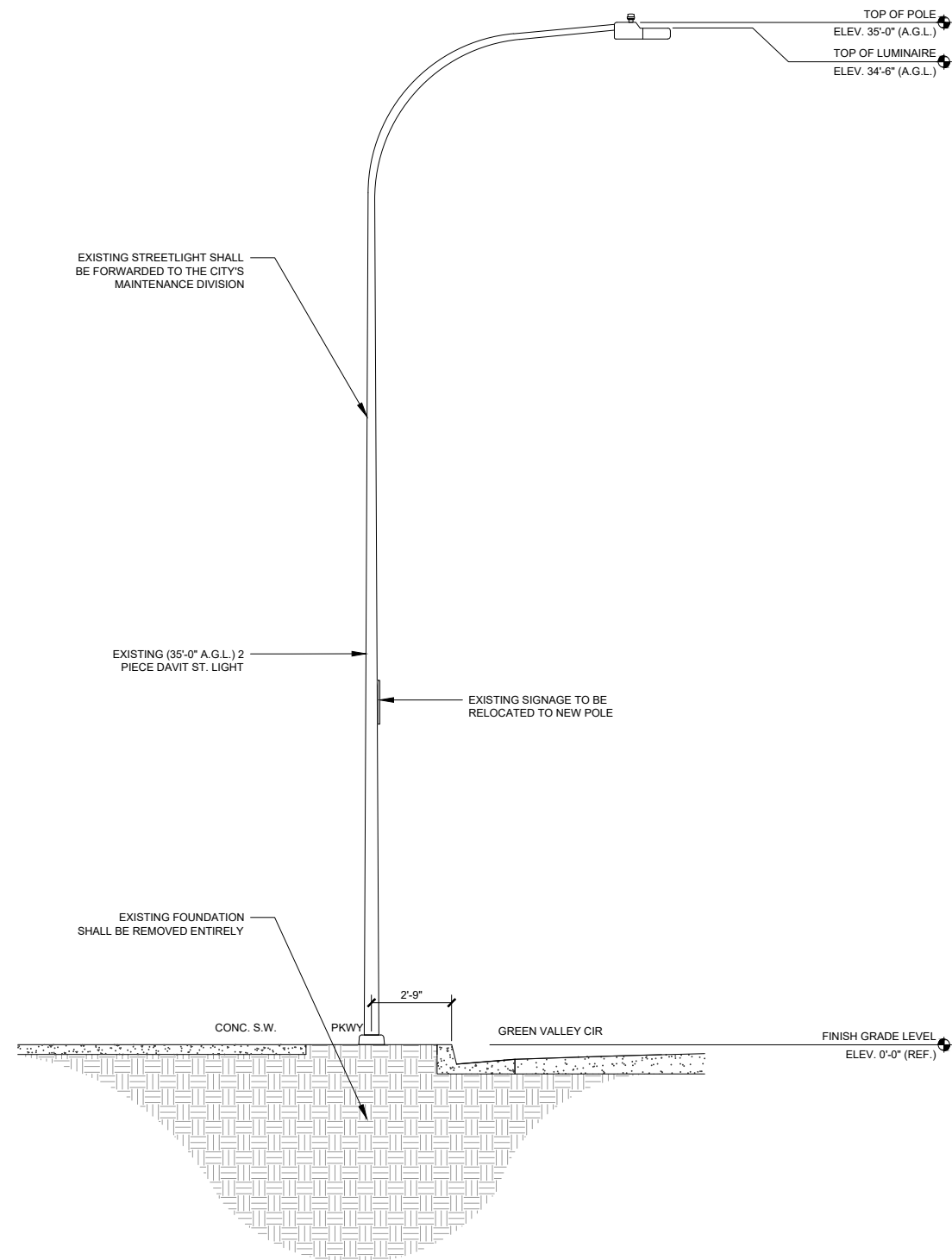
A-3

NOTES:

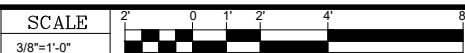
1. ALL NEWLY INSTALLED EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING POLE AND OR SURROUNDINGS UNLESS PROHIBITED PER MANUFACTURER REQUIREMENTS.

AT&T MOBILITY CONTRACTOR TO PLACE NEW (1) OMNI ANTENNA, (2) 4402 RADIOS, (1) 2205 RADIO, (1) FUTURE RADIO AND (1) DISCONNECT SWITCH WITH INTEGRATED SURGE SUPPRESSION WITHIN NEW STEEL CONCEALFAB POLE.

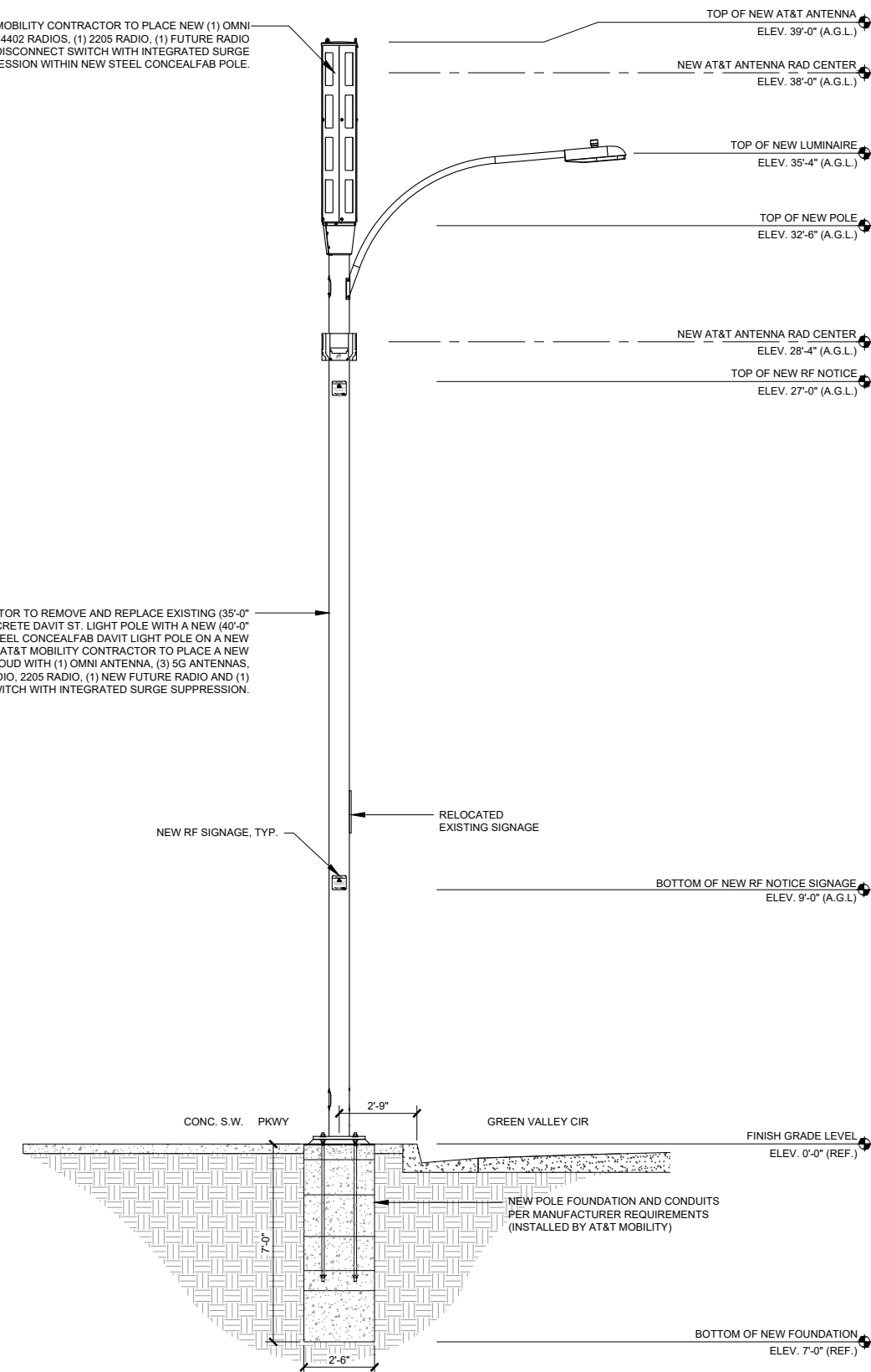
AT&T CONTRACTOR TO REMOVE AND REPLACE EXISTING (35'-0" A.G.L.) CONCRETE DAVIT ST. LIGHT POLE WITH A NEW (40'-0" A.G.L.) STEEL CONCEALFAB DAVIT LIGHT POLE ON A NEW FOUNDATION. AT&T MOBILITY CONTRACTOR TO PLACE A NEW BOUCHARD SHROUD WITH (1) OMNI ANTENNA, (3) 5G ANTENNAS, (2) 4402 RADIO, 2205 RADIO, (1) NEW FUTURE RADIO AND (1) DISCONNECT SWITCH WITH INTEGRATED SURGE SUPPRESSION.



EXISTING WEST ELEVATION



1



NEW WEST ELEVATION



2

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:




an SFC Communications, Inc. Company  
65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

CHECKED BY A&E: FE  
CHECKED BY OSP: AJ

REVISIONS:

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0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/2019	90% CONSTRUCTION DWG	JOJ

LICENSER:



78549  
EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRAH - 001A  
5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

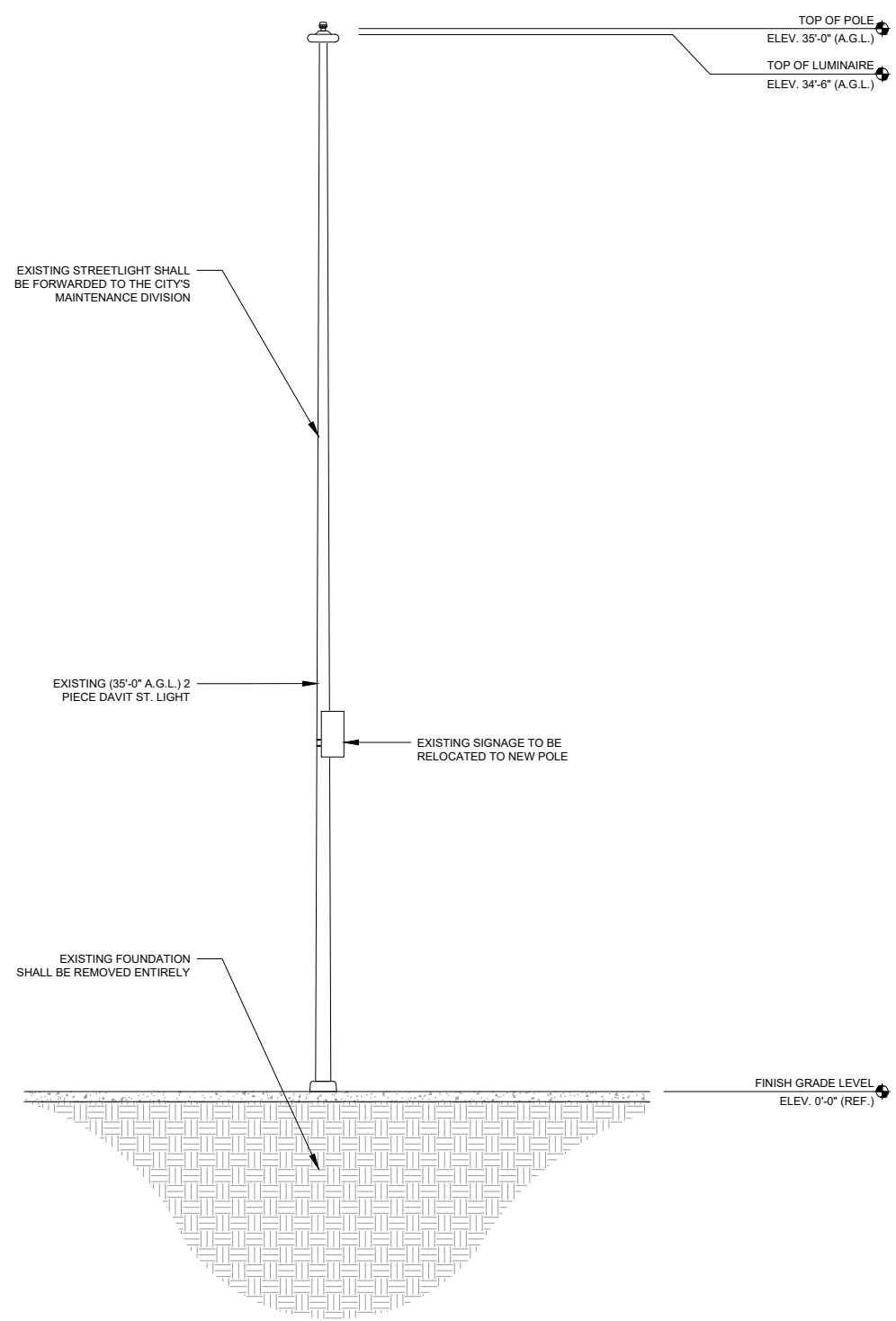
SHEET TITLE:

NEW AND EXISTING  
SOUTH ELEVATIONS

SHEET NUMBER:


A-4

NOTES:  
1. ALL NEWLY INSTALLED EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING POLE AND OR SURROUNDINGS UNLESS PROHIBITED PER MANUFACTURER REQUIREMENTS.

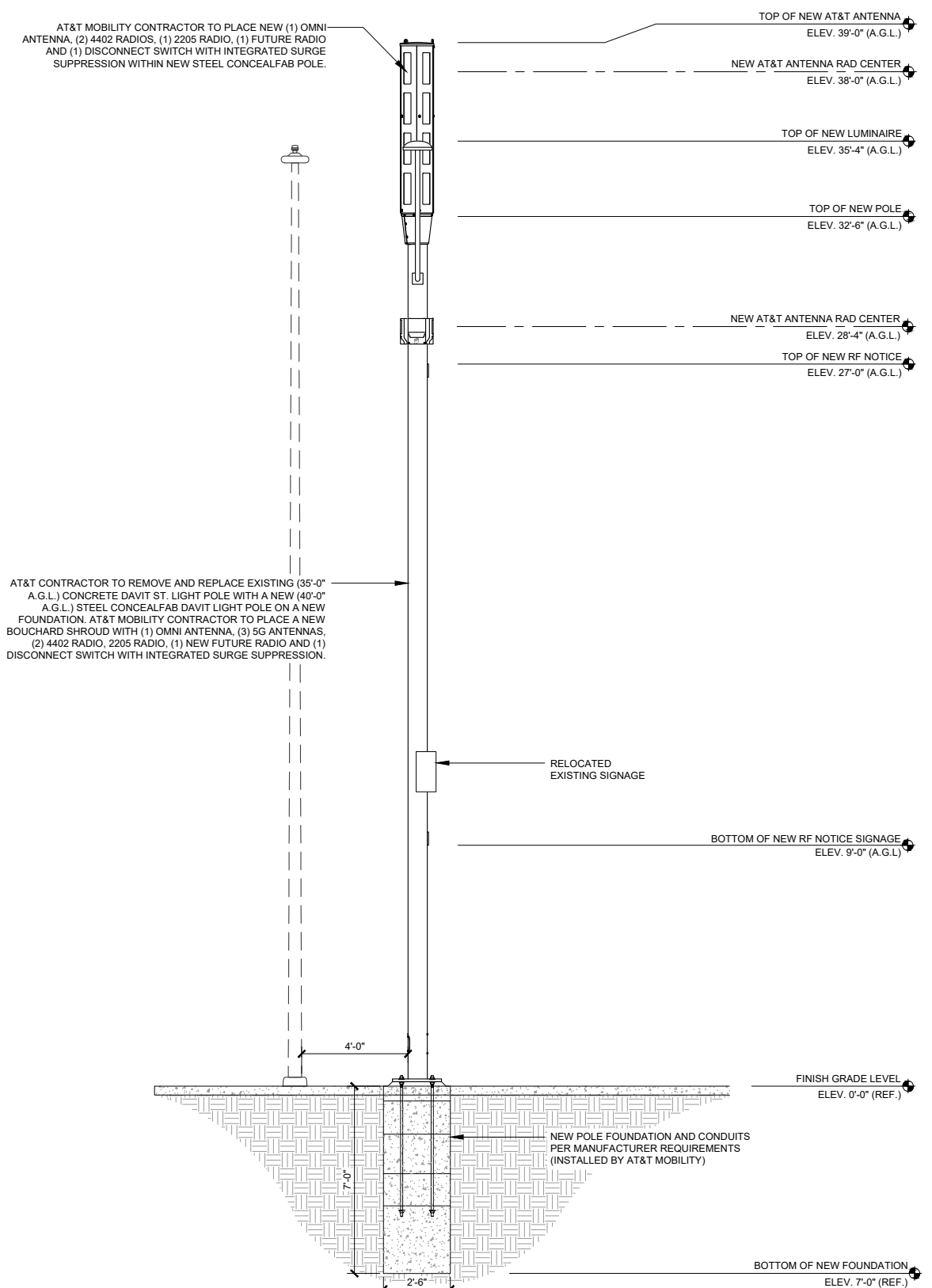


EXISTING SOUTH ELEVATION

SCALE 3/8"=1'-0"

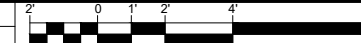


1



NEW SOUTH ELEVATION

SCALE 3/8"=1'-0"



2





EXISTING 2 PIECE DAVIT STREET LIGHT TO BE REMOVED AND REPLACED WITH A NEW DAVIT STEEL STREET LIGHT POLE ON NEW REINFORCED FOUNDATION BY AT&T

APPLICANT:



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CHECKED BY A&E: FE  
CHECKED BY OSP: AJ

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LICENSER:



EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRAH - 001A  
5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

SHEET TITLE:

SITE IMAGE

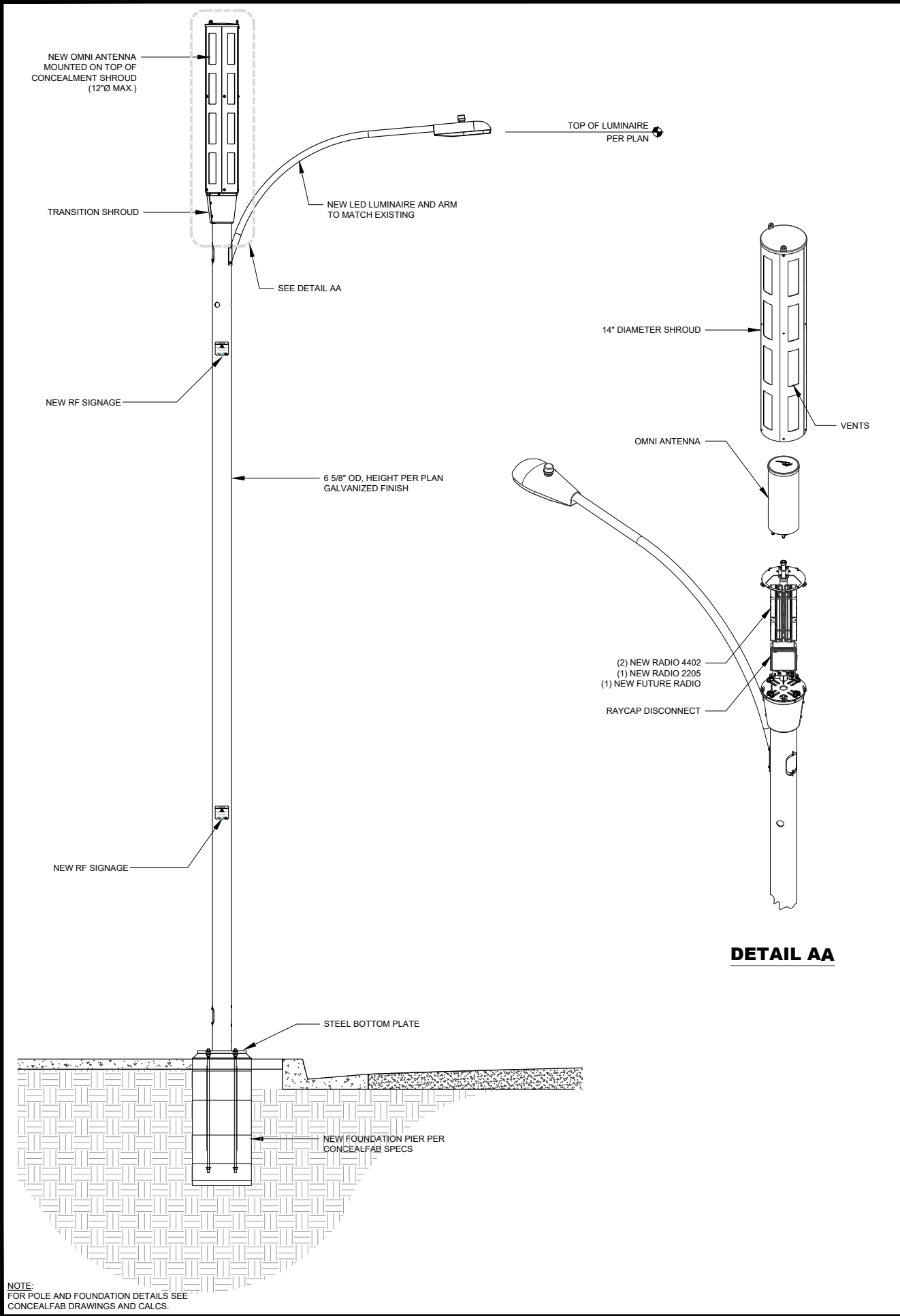
SHEET NUMBER:

A-5

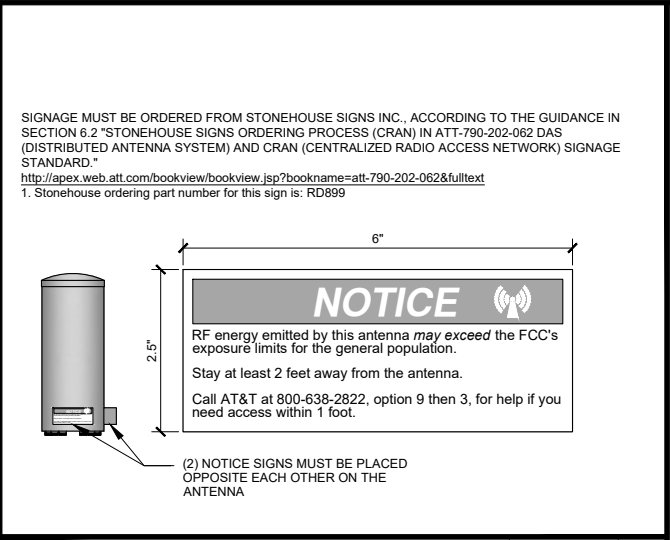
SITE LOCATION SOUTHEAST VIEW

SCALE  
NONE 1





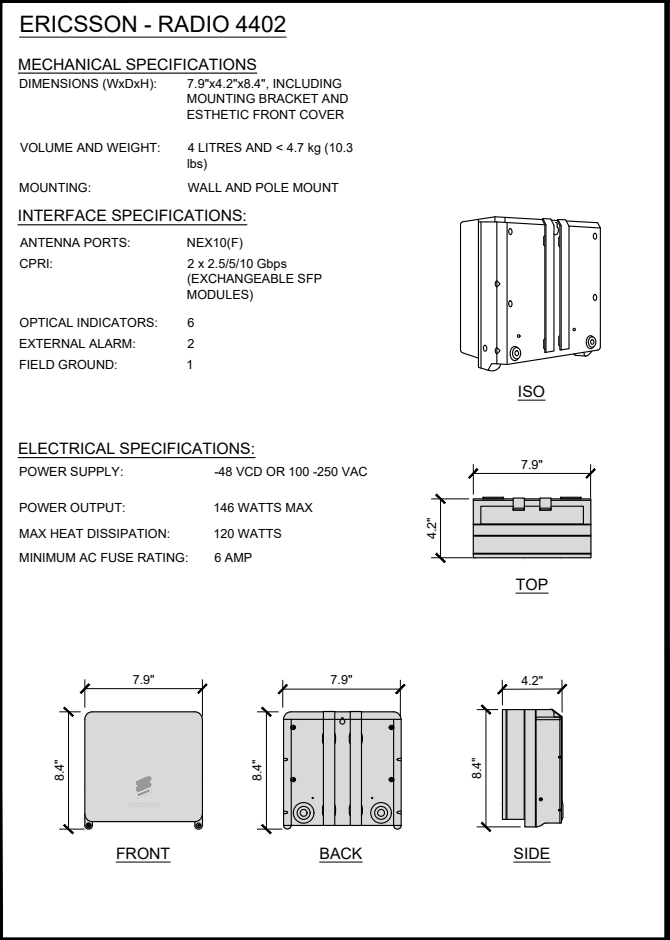
**CONCEALFAB POLE** SCALE NONE 1



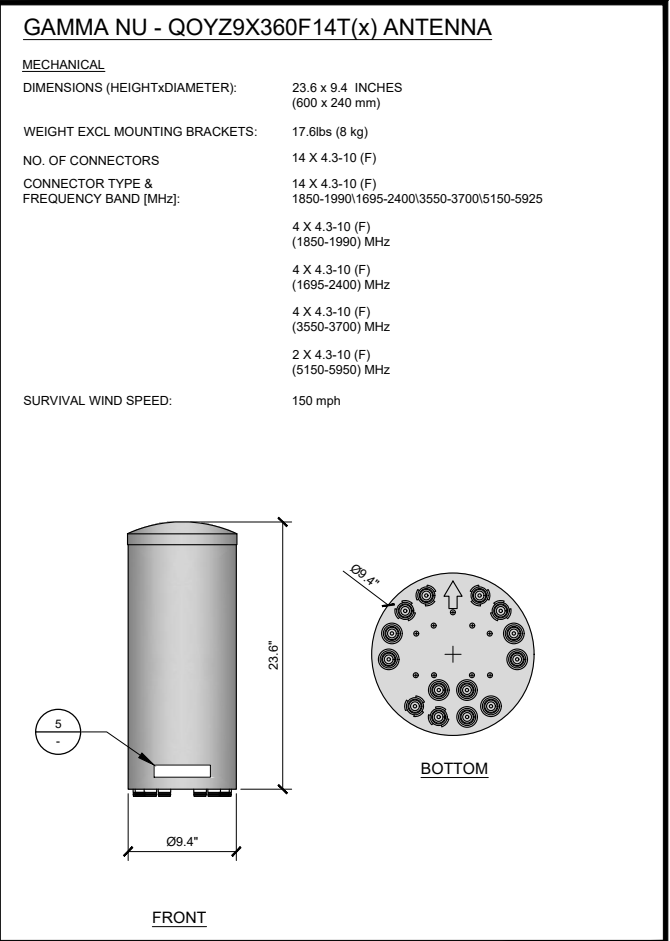
**ANTENNA DISCLAIMER LABEL** SCALE NONE 2



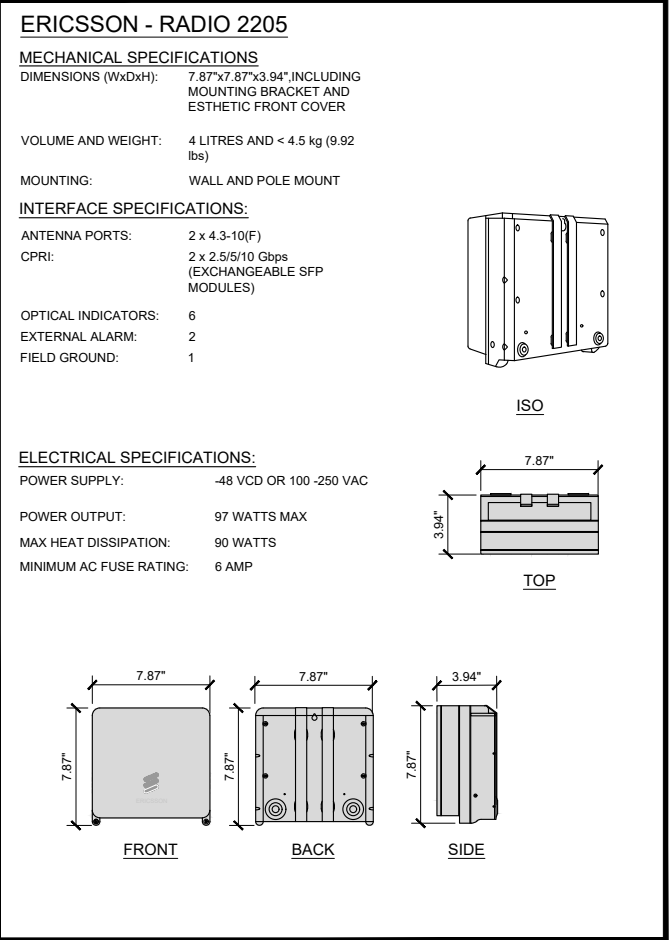
**ERICSSON - RADIO 4402** SCALE NONE 3



**ERICSSON - RADIO 2205** SCALE NONE 5



**GAMMA NU-QOYZ9X360F14T(x) ANTENNA** SCALE NONE 4



**ERICSSON - RADIO 2205** SCALE NONE 6

APPLICANT:

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LICENSER:

EXPIRATION DATE: 12-31-22  
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PROJECT INFORMATION:

LDRH - 001A  
5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

SHEET TITLE:

EQUIPMENT DETAILS

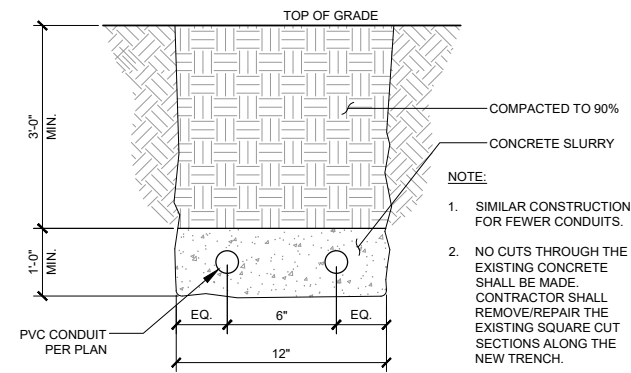
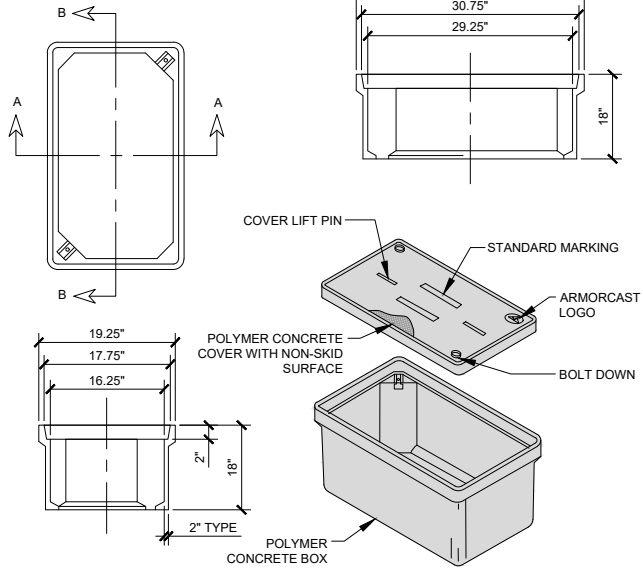
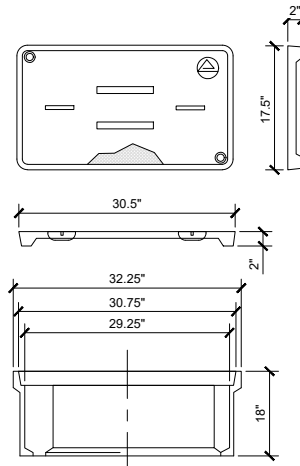
SHEET NUMBER:

A-6

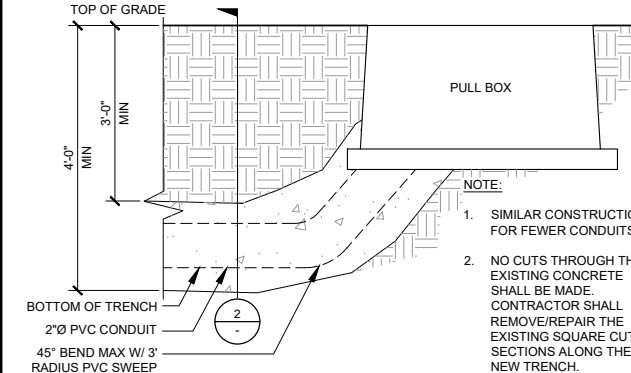
**ARMORCAST - POLYMER CONCRETE 17" x 30" x 18" PULL BOX ASSEMBLY**

**MECHANICAL SPECIFICATIONS**

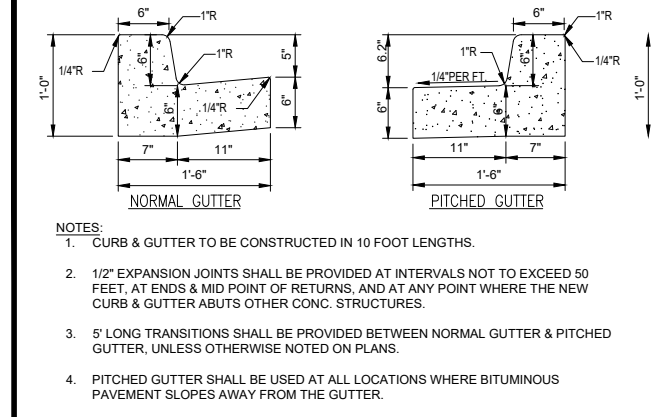
PART NUMBER: A6001640PCX18  
 LID NUMBER: A6001643  
 DIMENSIONS (WxLxD): 17"x30"x18"  
 APPROX. WEIGHT: (BOX & COVER) 140 LB  
 LOAD RATING: 10K  
 ANSI TIER: 8



TRENCH DETAIL SCALE NONE 2



CONDUIT STUB-UP/TRENCH DETAIL SCALE NONE 3



CONCRETE CURB AND GUTTER SCALE NONE 4

**PULL BOX SPECIFICATIONS**

SCALE NONE 1

NOT USED

SCALE NONE 6

NOT USED

SCALE NONE 7

NOT USED

SCALE NONE 8

**AIR 1281-B260-39GHz ANTENNA**

ITEM SPECIFICATIONS  
 AIR TECHNOLOGY 5G NR  
 OPERATING FREQUENCY 37GHz-40GHz  
 ANTENNA CONFIGURATION 2T2R/PANEL  
 ANTENNA ELEMENT 128AE/PATH,256AE/PANEL,1024AE/OMNI  
 IBW/OBW 1400MHz/400MHz  
 CHANNEL BW/CAPACITY 1000MHz 8CC(HW READY FOR 50/100MHz)  
 EIRP 53/56dBm/PANEL  
 FUNCTION SPLIT OPTION 7-2x(HW READY FOR COMPRESION)  
 FRONT-HAUL eCPRI 25Gbps x 2 PORTS  
 INPUT VOLTAGE 100-250VAC  
 OPERATING TEMPERATURE -40-+55°C(WITH SOLAR LOAD)  
 COOLING METHOD NATURAL CONVECTION COOLING  
 INSTALLATION POLE, WALL  
 WEIGHT 7.5kg ±5%  
 POWER CONSUMPTION (MAX) TOTAL 525W(3X175W)

NOT USED

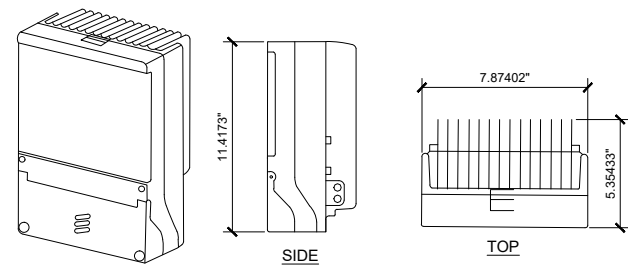
SCALE NONE 9

NOT USED

SCALE NONE 10

NOT USED

SCALE NONE 11



**AIR 1281-B260-39GHz ANTENNA**

SCALE NONE 5

NOT USED

SCALE NONE 12

NOT USED

SCALE NONE 13

NOT USED

SCALE NONE 14

APPLICANT:  
  
 1452 EDINGER AVE.  
 TUSTIN, CA 92780

ENGINEER:  
  
 an SFC Communications, Inc. Company  
 65 POST, SUITE 1000  
 IRVINE, CA 92618  
 TEL: (949) 553-8566  
[www.eukongroup.com](http://www.eukongroup.com)

CHECKED BY A&E: FE  
 CHECKED BY OSP: AJ

REVISIONS:

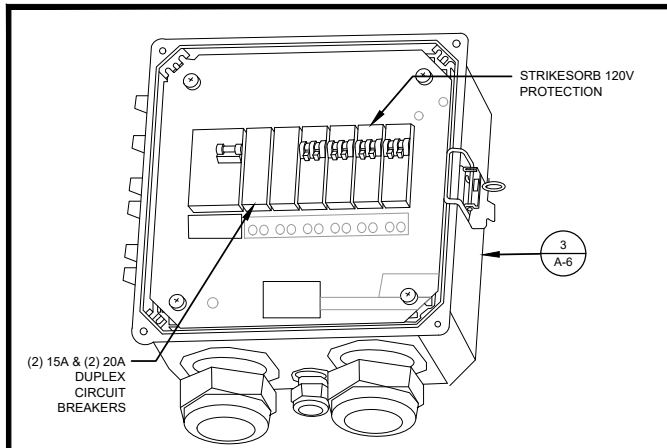
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A	07/30/2019	90% CONSTRUCTION DWG	JOJ

LICENSER:  
  
 EXPIRATION DATE: 12-31-22  
 DATE SIGNED: 10-25-19

PROJECT INFORMATION:  
 LDRAH - 001A  
 5839 GREEN VALLEY CIR.  
 CULVER CITY, CA 90230

SHEET TITLE:  
**CONSTRUCTION DETAILS**

SHEET NUMBER:  
**A-7**

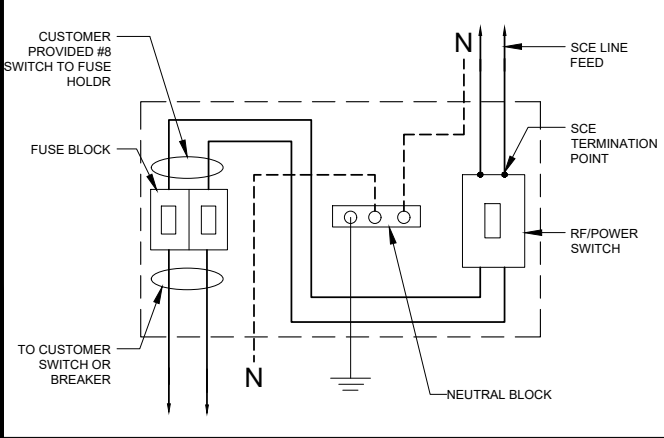


- GROUND BONDS:** ALL BONDS ARE TO BE MADE WITH #6 AWG STRANDED COPPER IN GREEN INSULATION. (ATT-TP-76416 7, 6.7)
- EXTERIOR UNIT BONDS:** ALL METALLIC OBJECTS SHALL BE BONDED TO THE GROUND ROD. (ATT-TP-76416 7, 12.6)
- CONTRACTOR TO SURROUND COMPLETED CONNECTIONS WITH WEATHERPROOFING TAPE OR EQUAL TO.

**BREAKER SCHEDULE** SCALE NONE 1

**GROUNDING NOTES** SCALE NONE 2

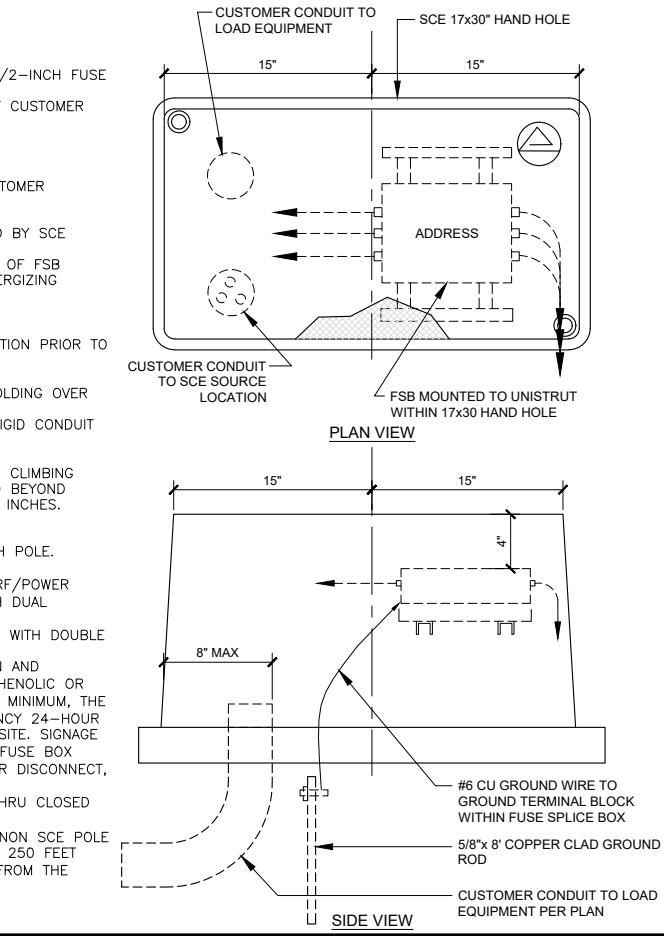
**NOT USED** SCALE NONE 3



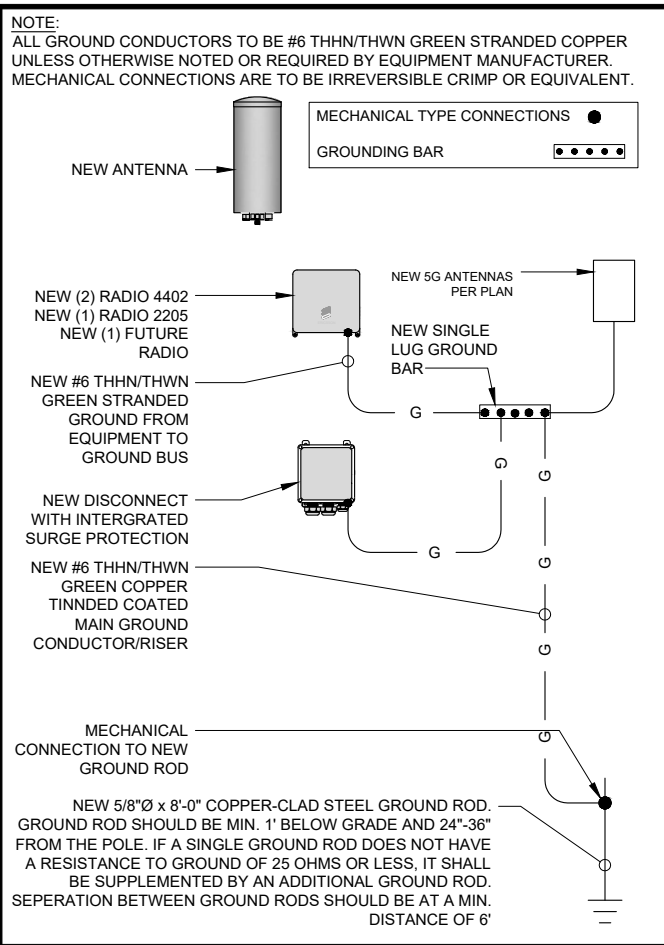
**NOT USED** SCALE NONE 3

**FSB WIRING DIAGRAM** SCALE NONE 4

- CABINET TO INCLUDE:**
- INSIDE PANEL FOR MOUNTING OF:
    - ISOLATION SWITCH
    - FUSEHOLDER--BUSS #BM6032B OR EQUIVALENT TO ACCEPT 13/32-INCH X 1-1/2-INCH FUSE
    - SINGLE-POLE TERMINAL BLOCK FOR NEUTRAL CONDUCTOR TERMINATION
    - ISOLATION SWITCH, FUSE HOLDER, AND NEUTRAL TERMINAL SHALL BE LABELED BY CUSTOMER
- CABINET REQUIREMENTS:**
- NEMA 3R--HINGE COVER, PADLOCKABLE
  - FUSE SPlice BOX (FSB) SIZE 12" W X 12" H X 6" D
  - FSB TO BE MOUNTED ON POLE BY WAY OF MOUNTING PLATES SUPPLIED BY CUSTOMER
- FUSE REQUIREMENTS:**
- CUSTOMER INSTALLS FUSES AND REPLACEMENT, IF NEEDED, ONCE FSB UNLOCKED BY SCE
  - FUSE RATING TO BE APPROVED BY SCE
  - ONE SPARE SET OF FUSES, SUPPLIED BY CUSTOMER, ARE TO BE PLACED INSIDE OF FSB
  - FUSE RATING TO BE LABELED BY CUSTOMER INSIDE OF FSB DOOR PRIOR TO ENERGIZING SERVICE.
- NOTE(S):**
- CUSTOMER TO NOTIFY SCE FOR APPROVAL OF FUSE SPlice BOX MOUNTING LOCATION PRIOR TO INSTALLATION.
  - SCE PERSONNEL TO NOTIFY IMS GROUP IF FUSES ARE REPLACED.
  - ARMORED GROUND WIRE OR MINIMUM OF 1/2-INCH RIGID CONDUIT OR WOOD MOLDING OVER GROUND WIRE.
  - GROUND WIRE FROM POLE TO ELECTRODE SHALL BE ENCLOSED IN GALVANIZED RIGID CONDUIT OR EQUIVALENT MECHANICAL PROTECTION.
  - SUBJECT TO LOCAL CODES/ORDINANCES WHERE APPLICABLE.
  - FOR JOINTLY-OWNED POLES, CUSTOMER TO PROVIDE POLE STEPS FOR IDENTIFIED CLIMBING SPACE UP TO CELLULAR ARM LEVEL. SCE TO PROVIDE POLE STEPS AS REQUIRED BEYOND CELLULAR ARM LEVEL. LOWEST LEVEL STEP SHALL NOT BE LESS THAN 7 FEET 6 INCHES. SPACING SHALL NOT EXCEED 36 INCHES.
  - CLIMBING SPACE ON POLE SHALL MEET G.O. 95 REQUIREMENTS.
  - CUSTOMER EQUIPMENT FOR WTR TARIFF IS NOT TO BE INSTALLED ON SCE SWITCH POLE.
  - THIS STANDARD APPLICABLE TO WTR TARIFF ONLY.
  - SCE CREW TO LOCK FSB WITH #203 LOCK AFTER SERVICE IS ENERGIZED THRU RF/POWER SWITCH TO OPEN CUSTOMER SCE EMERGENCY RF/POWER SHUT-OFF SWITCH WITH DUAL LOCKING DEVICE TO ALLOW SCE ACCESS.
  - OPTIONAL LOCATION OF CUSTOMER'S EMERGENCY RF/POWER DISCONNECT SWITCH, WITH DOUBLE LOCKING DEVICE.
  - CELL CARRIERS SHALL INSTALL A SIGN OR DECAL MADE OF WEATHER, CORROSION AND ULTRAVIOLET (UV) RESISTANT MATERIALS (E.G., MACHINE-ENGRAVED, LAMINATED-PHENOLIC OR REFLECTIVE SCOTCHLITE MATERIALS) PLACED OUTSIDE THE FUSE BOX DOOR. AT A MINIMUM, THE SIGN OR DECAL SHALL INDICATE THE ANTENNA OWNER/OPERATOR NAME, EMERGENCY 24-HOUR CONTACT NUMBER, AND UNIQUE IDENTIFIER OR NOC NUMBER FOR THE ANTENNA SITE. SIGNAGE SHALL BE PLACED AT 8"-0" MINIMUM TO 11"-0" MAXIMUM ON THE OUTSIDE OF FUSE BOX DOOR. LABELING SHALL BE PLACED INSIDE THE FUSE BOX IDENTIFYING; RF/POWER DISCONNECT, AND FUSE BLOCK WITH AMPACITY OF FUSE IN USE.
  - INSTALL #8, 3 1/c TW CU FOR OVERHEAD. REFER TO DUG AP 100. ENERGIZE THRU CLOSED RF/POWER SWITCH TO OPEN CUSTOMER-FUSED SWITCH..
  - ANTENNA WITH EMERGENCY RF/POWER DISCONNECT SWITCH MAY BE PLACED ON NON SCE POLE WHERE THERE IS VEHICULAR ACCESS TO THE POLE, THE POLE IS A MAXIMUM OF 250 FEET RADIALLY, AND THE POLE/ANTENNA IS CLEARLY VISIBLE WITH NO OBSTRUCTIONS FROM THE WIRELESS TECHNOLOGY RATE (WTR) BOX LOCATION



**WTR FUSE SPlice BOX (FSB) IN HAND HOLE** SCALE NONE 7



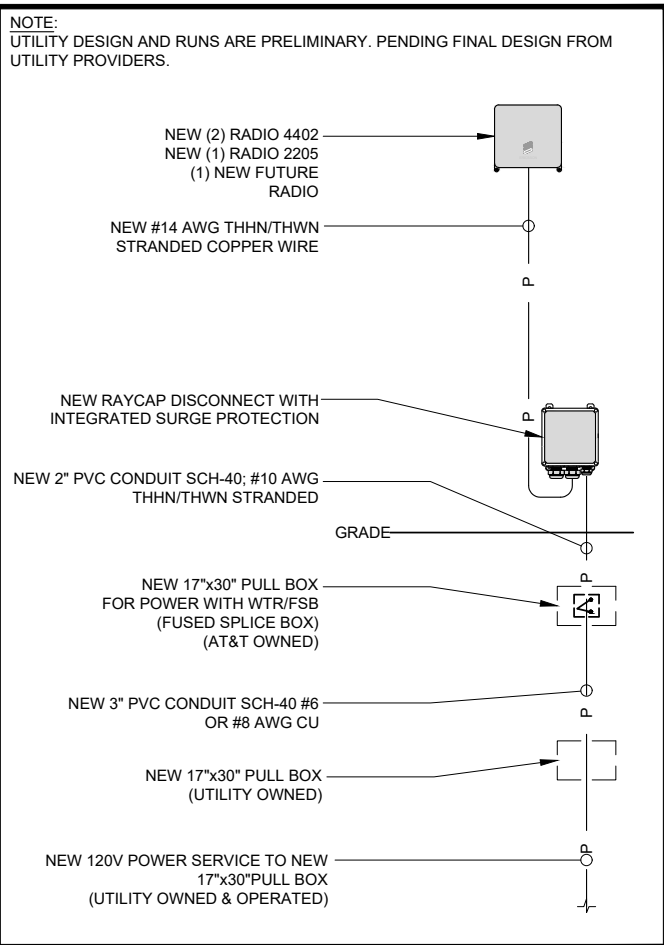
**GROUNDING SCHEMATIC** SCALE NONE 5

**NOT USED** SCALE NONE 8

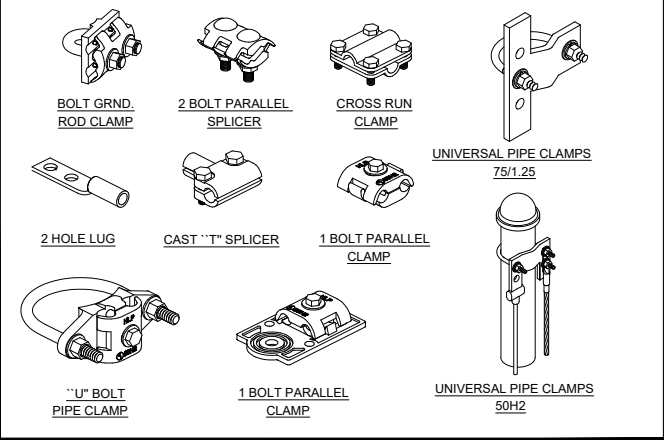
**NOT USED** SCALE NONE 8

**NOT USED** SCALE NONE 7

**NOT USED** SCALE NONE 10



**ONE-LINE DIAGRAM** SCALE NONE 6



**MECHANICAL CONNECTIONS** SCALE NONE 9

**NOT USED** SCALE NONE 10

APPLICANT:

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CHECKED BY A&E:	FE
CHECKED BY OSP:	AJ

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LICENSER:

PROJECT INFORMATION:

LDRAH - 001A

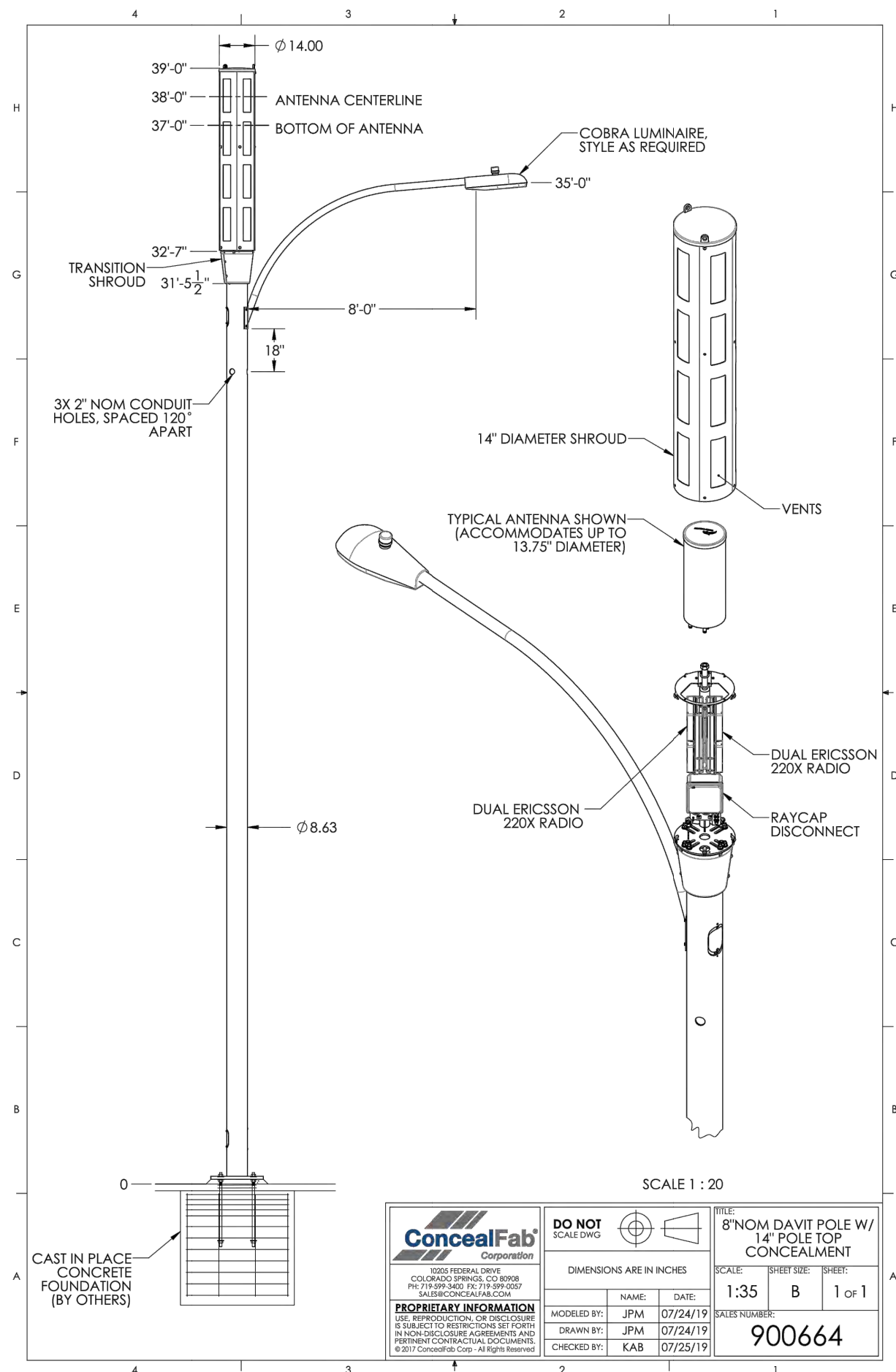
5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

SHEET TITLE:

ELECTRICAL AND GROUNDING DETAILS

SHEET NUMBER:

E-1



**ConcealFab Corporation**  
 10205 FEDERAL DRIVE  
 COLORADO SPRINGS, CO 80908  
 PH: 719-599-3400, FX: 719-599-0057  
 SALES@CONCEALFAB.COM

**DO NOT SCALE DWG**

DIMENSIONS ARE IN INCHES

MODELED BY:	JPM	07/24/19
DRAWN BY:	JPM	07/24/19
CHECKED BY:	KAB	07/25/19

TITLE: 8" NOM DAVIT POLE W/ 14" POLE TOP CONCEALMENT

SCALE: 1:35 SHEET SIZE: B SHEET: 1 OF 1

SALES NUMBER: 900664

**PROPRIETARY INFORMATION**  
 USE, REPRODUCTION, OR DISCLOSURE IS SUBJECT TO RESTRICTIONS SET FORTH IN NON-DISCLOSURE AGREEMENTS AND PERTINENT CONTRACTUAL DOCUMENTS.  
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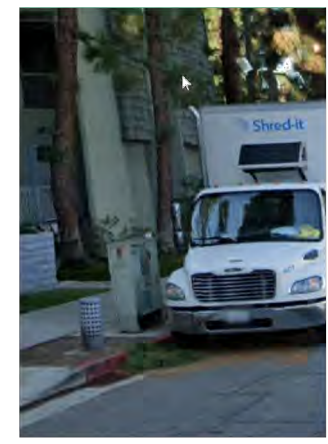
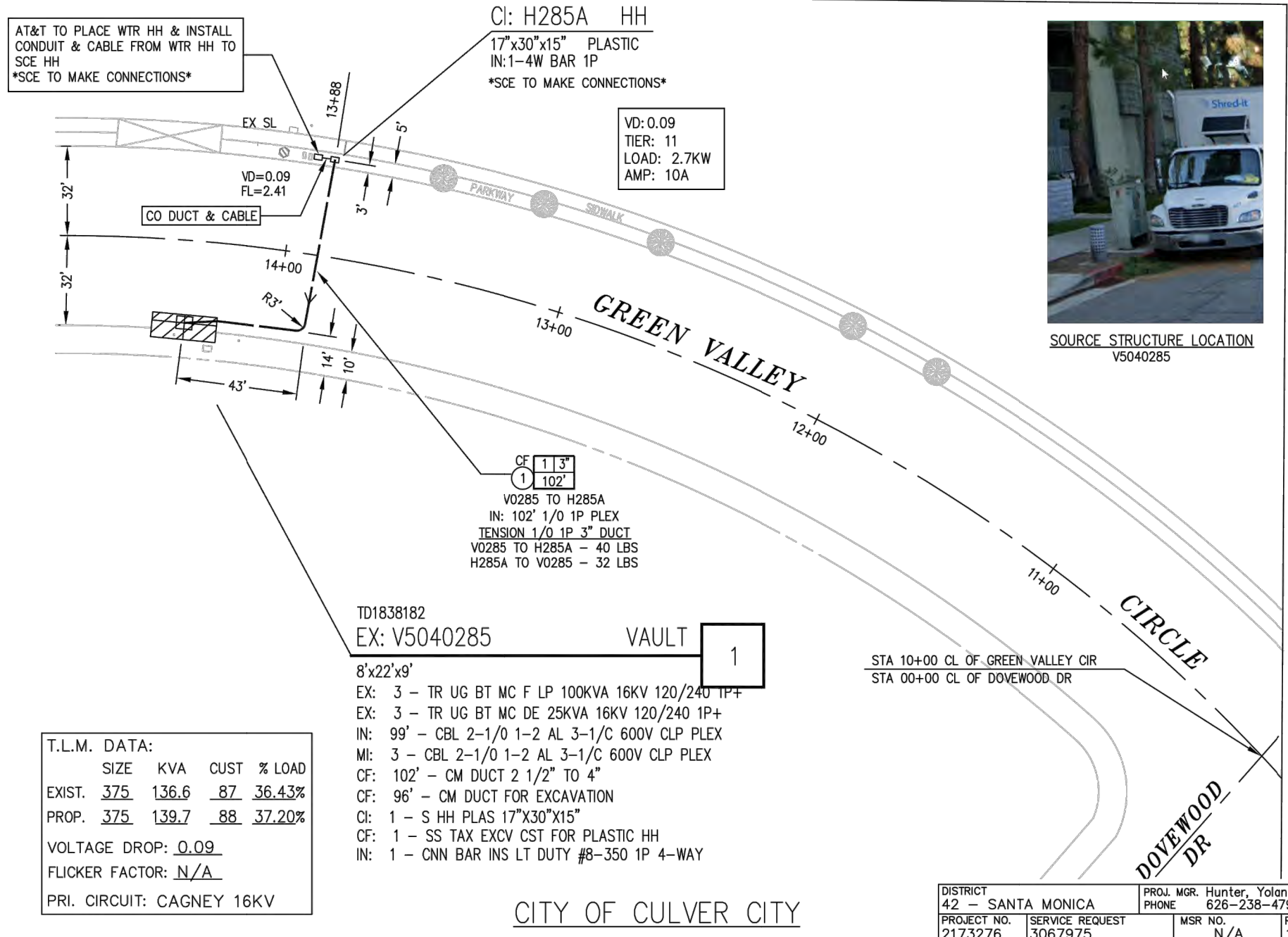
CONCEALFAB POLE DESIGN  
(FOR REFERENCE ONLY)

SHEET NUMBER:

S-1



FILE NAME: 1388801\_001.DWG SAVE DATE: 5/14/2021 8:21 AM SAVED BY: BROWNJP



SOURCE STRUCTURE LOCATION  
V5040285

**PROJECT REQUIREMENTS (Y/N)**

EDISON EASEMENT REQUIRED	<input type="checkbox"/>
PWRD 88 REQUIRED	<input checked="" type="checkbox"/>
UG CIVIL ONLY WORK ORDER	<input type="checkbox"/>
PERMIT REQUIRED	<input checked="" type="checkbox"/>
PERMIT TYPE: ENCROACHMENT	
OUTAGE REQUIRED	<input type="checkbox"/>
OUTAGE DATE: N/A	TIME: N/A
TRAFFIC CONTROL REQUIRED	<input checked="" type="checkbox"/>
PED. TRAFFIC CONTROL REQ'D	<input type="checkbox"/>
CONVEYANCE LETTER REQ'D	<input type="checkbox"/>
ENVIRONMENTAL REQUIREMENTS DOCUMENT (ERD) REQUIRED	<input type="checkbox"/>
CSD 140 (TLM) REQ'D	<input type="checkbox"/>

D124: Rev. 12/04/20



SCALE: 1 in = 40 ft

**FINAL DESIGN**  
APPROVED FOR CONSTRUCTION

DISTRICT 42 - SANTA MONICA	PROJ. MGR. Hunter, Yolanda D PHONE 626-238-4792	PLANNER Medina, Gregg Jason PHONE 626-228-4020	DESIGNER BROWN, J.P.
PROJECT NO. 2173276	SERVICE REQUEST 3067975	MSR NO. N/A	PRODUCT-1 1838182-LINE EXTENSION
CIRCUIT / VOLTAGE CAGNEY 16KV		GPS	PRODUCT-2
SUB / PG NO. % MOVIE SUB		CIRCUIT CODE	PRODUCT-3
INVENTORY MAP LT-7658-B	J.P.A. NO.	PROPOSED CONSTRUCTION (LOCATION) AT&T MOBILITY SITE#268955 5839W GREEN VALLEY CIR CULVER CITY CA 90230	
F	5/27/2021	M. RANDOLPH	G. MEDINA
J.P. BROWN			
TYPE	DATE	APPROVED BY	CHECKED BY
Southern California Edison Company			
SHEET	1 OF 2		DESIGN\DRWG NO. 1388801_0.01

**SCE Inspection**

Contact SCE 48 Hours in advance for a Pre-Construction meeting and/or Inspection.

Email: NDPFCS@SCE.COM

**TIE-IN MADE THROUGH SIDE WALL OF STRUCTURE**  
(Vault, Manhole, PME, SOE/CST, BURD, Slab Box, Pull Box, PMH)  
The customer is responsible to trench to the structure entrance point and bring the conduit to within 5' of the structure being entered. The customer is to provide slip coupling and conduit.

APPLICANT:

1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:

an SFC Communications, Inc. Company

65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

CHECKED BY A&E: FE  
CHECKED BY OSP: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
4	08/02/21	CITY COMMENTS	AS
3	05/27/21	FINAL POWER	FR
2	03/04/21	EQUIPMENT CHANGE PER ATT	MP
1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/2019	90% CONSTRUCTION DWG	JOJ

LICENSER:

PROJECT INFORMATION:

LdraH - 001A

5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

SHEET TITLE:

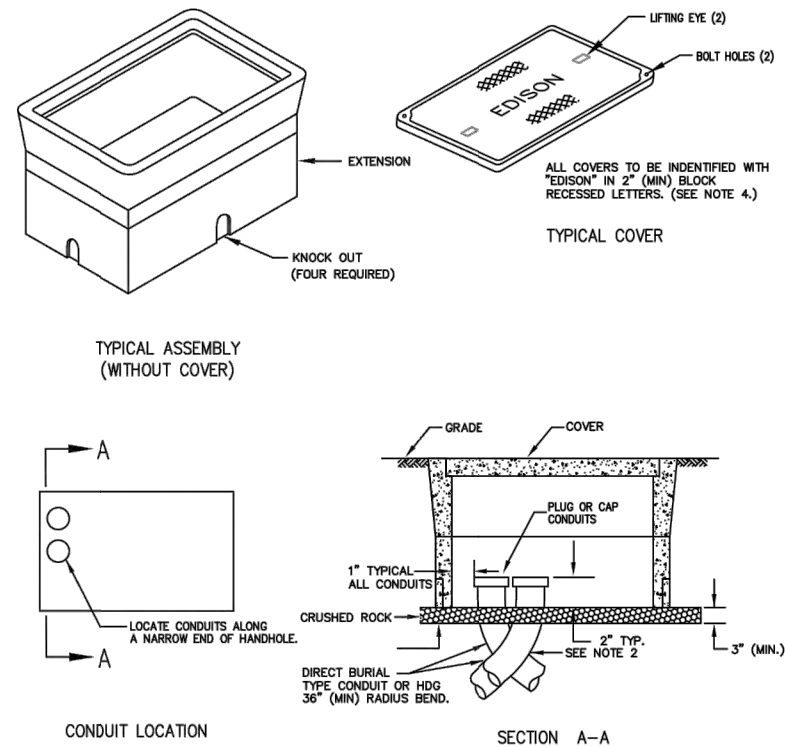
UTILITY DESIGN

SHEET NUMBER:

UD-1



TYPICAL HANDHOLE INSTALLATION  
SEE UGS HP 205



NOTES:

- SEE UGS HP 200 FOR DIMENSIONS OF VARIOUS SIZE HANDHOLES AVAILABLE.
- RADIUS ANGLE MAY BE REDUCED TO LESS THAN 90° PROVIDING THE PROJECTED CENTER LINE OF THE CONDUIT CLEARS HANDHOLE OPENING.
- TWO HOLD DOWN DEVICES TO BE SUPPLIED WITH EACH HANDHOLE.
- COVER SHALL BE IDENTIFIED WITH "EDISON" IN MINIMUM 2-INCH LETTERS OR LABELS PERMANENTLY SECURED TO THE LID.
- FOR MAINTENANCE ON 10-1/2" X 17" CONCRETE HANDHOLES USE SWINGBOLT WITH SAP 10204721.

D75 REV. 03/18/19

Applicants expressly represent and warrant that all work performed and all material used in meeting Applicants' obligations herein are free from defects in workmanship and are in conformity with Southern California Edison Company's requirements. This warranty shall commence upon receipt by Applicants of the Company's final acceptance and shall expire one year from that date. Applicants agree to promptly correct to the Company's satisfaction and that of any governmental agency having jurisdiction and at Applicants' expense any breach of this warranty which may become apparent through inspection or operation of underground electric system by the Company during this warranty period.

CUSTOMER-OWNED CONDUIT MATERIAL\* AND CONCRETE ENCASUREMENT ARE TO BE INSTALLED IN ACCORDANCE WITH EDISON ELECTRICAL SERVICE REQUIREMENTS.  
\*SUBJECT TO APPROVAL BY LOCAL INSPECTION AUTHORITIES

D14: Rev. 01/85

NOTE:  
ALL ELECTRICAL DUCTS AND STRUCTURES WILL CONFORM TO GENERAL ORDER #128 (RULES FOR CONSTRUCTION OF UNDERGROUND ELECTRICAL SUPPLY AND COMMUNICATION PRESCRIBED BY THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA, JANUARY 2006).

WARNING

THE EXCAVATOR MUST TAKE ALL STEPS NECESSARY TO AVOID CONTACT WITH UNDERGROUND FACILITIES WHICH MAY RESULT IN INJURY TO PERSONS OR DAMAGE TO FACILITIES IN THE AREA. THE INDICATED LOCATIONS OF EDISON UNDERGROUND FACILITIES, AS PROVIDED, ARE BELIEVED TO BE ACCURATE, HOWEVER, THE FINAL DETERMINATION OF EXACT LOCATIONS AND THE COST OF REPAIR TO DAMAGED FACILITIES IS THE RESPONSIBILITY OF THE EXCAVATOR.

CONNECTING TO EXISTING SCE STRUCTURES

- Per SCE requirements, customers are not allowed to enter, intercept or tie-in to existing SCE facilities; e.g. structures, equipment, multi-conduit runs/banks, or conductors. These facilities may be energized and the work will only be performed by SCE. Contact the appropriate SCE inspector to schedule an appointment. Customers may connect to an existing conduit stub without a SCE inspector present.
- Multi-conduit runs/banks are runs of conduit in close proximity to each other and other SCE facilities. A conduit stub is a single empty conduit stub that is not in close proximity to other SCE owned facilities. Refer to the work order map for details.
- Per CPUC/SCE's Rule 15 B.1.A and Rule 16 D.1.A., the customer will provide all necessary excavations (with the exception of excavation under pads and primary splice boxes), material (including conduit and structures) and encasement, to be utilized in the intercept/tie-in process.
- The customer must adhere to all applicable Cal-OSHA, local, city, state and federal regulations, (including, but not limited to, all necessary shoring and traffic control in place to perform the intercept/tie-in work by SCE's underground civil contractor(s)).
- Intercept/tie-in work must be coordinated with SCE's civil contractors through the Division Inspector/P-Spec to limit exposure of excavation(s). Customer is responsible for securing excavation(s).

D08: 11/13/18

**UNDERGROUND SERVICE ALERT**  
Contact USA  
Dial 811 or 800-422-4133  
[www.digalert.org/contact](http://www.digalert.org/contact)  
For Underground Locating  
Two Working Days Before You Dig

D16: Rev. 05/28/20

FINAL DESIGN  
APPROVED FOR CONSTRUCTION

DISTRICT 42 - SANTA MONICA		PROJ. MGR. Hunter, Yolanda D PHONE 626-238-4792	PLANNER Medina, Gregg Jason PHONE 626-228-4020	DESIGNER BROWN, J.P.
PROJECT NO. 2173276	SERVICE REQUEST 3067975	MSR NO. N/A	PRODUCT-1 1838182-LINE EXTENSION	ASSOC DESGN 1388801
CIRCUIT / VOLTAGE CAGNEY 16KV		GPS	PRODUCT-2	ASSOC DESGN
SUB / PG NO. % MOVIE SUB		CIRCUIT CODE	PRODUCT-3	ASSOC DESGN
INVENTORY MAP LT-7658-B		J.P.A. NO.		PROPOSED CONSTRUCTION (LOCATION) AT&T MOBILITY SITE#268955 5839W GREEN VALLEY CIR CULVER CITY CA 90230
F	5/27/2021	M. RANDOLPH	G. MEDINA	J.P. BROWN
TYPE	DATE	APPROVED BY	CHECKED BY	DRAWN BY
Southern California Edison Company				
SHEET 2 OF 2			DESIGN\DRWG NO. 1388801_0.01	

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:



65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
[www.eukongroup.com](http://www.eukongroup.com)

CHECKED BY A&E: FE  
CHECKED BY OSP: AJ

REVISIONS:

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0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/2019	90% CONSTRUCTION DWG	JOJ

LICENSER:

PROJECT INFORMATION:

LDRAH - 001A  
5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

SHEET TITLE:

UTILITY DESIGN

SHEET NUMBER:

UD-2

Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

Road Type	Distance Between Signs*		
	A	B	C
Urban (low speed) – 25 mph or less	100 ft	100 ft	100 ft
Urban (high speed) – more than 25 mph to 40 mph	250 ft	250 ft	250 ft
Urban (high speed) – more than 40 mph	350 ft	350 ft	350 ft
Rural	500 ft	500 ft	500 ft
Expressway / Freeway	1,000 ft	1,000 ft	1,000 ft

\* Speed category to be determined by the highway agency.  
 \*\* The column headings A,B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

Table 6C-2. Stopping Sight Distance as a Function of Speed on Level Roads.

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet

\* Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.

Table 6C-3 (CA). Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)

Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (w)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)***
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50

\* – Posted speed limit, off peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.  
 \*\* – For other offsets use the following merging taper length formula for L:  
 For speeds of 40 mph or less,  $L=WS/60$   
 For speeds of 45 mph or more,  $L=WS$   
 Where L = taper length in feet  
 W = width of offset in feet  
 S = posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.  
 \*\*\* – Maximum downstream taper length is 100 feet. See Section 6C.08.


GENERAL NOTES:

1. WORK HOURS TO BE RESTRICTED TO 8:00AM TO 4:30PM UNLESS APPROVED OTHERWISE.
2. PEDESTRIAN CONTROLS WILL BE PROVIDED AS SHOWN.
3. PEDESTRIANS SHALL BE PROTECTED FROM ENTERING THE EXCAVATION BY PHYSICAL BARRIERS DESIGNED, INSTALLED, AND MAINTAINED TO THE SATISFACTION OF THE CITY ENGINEER.
4. TEMPORARY "NO PARKING/TOW AWAY" SIGNS STATING THE DATE AND TIME OF PROHIBITION WILL BE POSTED 72 HOURS PRIOR TO COMMENCING WORK. CALL POLICE DISPATCH TO VALIDATE POSTING.
5. ACCESS WILL BE MAINTAINED TO ALL DRIVEWAYS UNLESS OTHER ARRANGEMENTS ARE MADE.
6. TRENCHES MUST BE BACKFILLED OR PLATED DURING NON-WORKING HOURS UNLESS K-RAIL BARRIERS ARE PROVIDED. K-RAIL IS APPROVED ONLY WHEN SPECIFICALLY SHOWN ON THE APPROVED TRAFFIC CONTROL PLAN. PLATES SHALL HAVE CLEATS AND COLD MIX AT THE EDGES AS APPROVED BY THE INSPECTOR.
7. STRIPING WILL BE REPLACED BY THE CONTRACTOR WITHIN 24 HOURS, IF REMOVED OR DAMAGED.
8. WORK THAT DISTURBS NORMAL TRAFFIC SIGNAL TIMING OPERATIONS SHALL BE COORDINATED WITH THE CITY. CONTACT PUBLIC WORKS DEPARTMENT 72 HOURS PRIOR TO COMMENCING WORK.
9. TRAFFIC SIGNALS SHALL REMAIN FULLY ACTUATED AT ALL TIMES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER OR HIS/HER REPRESENTATIVE. IF TRAFFIC SIGNAL LOOP DETECTORS ARE RENDERED INOPERATIVE BY THE PROPOSED WORK, VIDEO DETECTION SHALL BE USED TO PROVIDE ACTUATION.
10. FLAGGERS SHALL BE EQUIPPED WITH A WHITE HARD HAT, AN ORANGE VEST, AND A "STOP/SLOW" PADDLE ON A 5 FOOT STAFF.
11. ALL TRAFFIC CONTROL DEVICES MUST BE MAINTAINED 24 HOURS A DAY, 7 DAYS PER WEEK, BY THE CONTRACTOR.
12. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2014 EDITION.
13. TRAFFIC CONTROL PLAN SUBMITTALS ARE REQUIRED FOR EACH PHASE OF THE WORK IN THE DETAIL, FORMAT, AND QUALITY ILLUSTRATED ON THIS SHEET.
14. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM VIEW OR COVERED WHEN NOT IN USE.
15. THE CITY ENGINEER OR HIS/HER REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO INSURE PUBLIC SAFETY.
16. ALL WORK AFFECTING BUS STOPS SHALL BE COORDINATED WITH CITY'S TRANSIT DISTRICT. CONTRACTOR SHALL CALL TRANSIT DISTRICT AT LEAST 72 HOURS IN ADVANCE OF STARTING WORK.
17. CHANGEABLE MESSAGE SIGNS SHALL BE USED IN ADVANCE OF TRAFFIC CONTROL ON MAJOR AND PRIME ARTERIALS, UNLESS OTHERWISE APPROVED. THESE SIGNS SHALL BE SHOWN ON THE TRAFFIC CONTROL PLAN.

SIGNAGE NOTES:

1. AT LEAST ONE PERSON SHALL BE ASSIGNED TO FULL TIME MAINTENANCE OF TRAFFIC CONTROL DEVICES ON ALL NIGHT LANE CLOSURES.
2. ALL WARNING SIGNS FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED OR REFLECTORIZED AS SPECIFIED IN THE SPECIFICATIONS.
3. ALL ADVANCE WARNING SIGN INSTALLATIONS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES OF ALL MAJOR AND PRIME ARTERIALS. FLASHING BEACONS SHALL BE USED DURING NIGHT LANE CLOSURES.
4. A G20-2 "END ROAD WORK" SIGN SHALL BE PLACED AT THE END OF THE LANE CLOSURE UNLESS THE END OF THE WORK AREA IS OBVIOUS, OR ENDS WITHIN A LARGER PROJECT LIMITS.
5. ALL CONES USED FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED TRAFFIC CONES OR FITTED WITH 13" REFLECTIVE SLEEVES.
6. FLASHING ARROW SIGNS SHALL BE USED PER CA MUTCD 2014 EDITION. SILENT TYPE SHALL BE USED IN RESIDENTIAL AREAS.
7. THE MAXIMUM SPACING BETWEEN CONES SHALL BE THE WORK AREA'S SPEED LIMIT.
8. ADDITIONAL ADVANCE FLAGGERS SHALL BE REQUIRED WHEN TRAFFIC QUEUES DEVELOP. FLAGGER STATIONS FOR WORK AT NIGHT SHALL BE ILLUMINATED AS NOTED IN SECTION 6G.20 OF THE MUTCD.
9. ALL REQUIRED SIGNS THAT ARE TO BE LEFT IN PLACE OVER A WEEKEND OR HOLIDAY SHALL BE POST MOUNTED.
10. CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL MEET THE PROVISIONS OF 2014 CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:




an SFC Communications, Inc. Company  
 65 POST, SUITE 1000  
 IRVINE, CA 92618  
 TEL: (949) 553-8566  
 www.eukongroup.com

DRAWN BY: FE  
 CHECKED BY: AJ

REVISIONS:			
REV	DATE	DESCRIPTION	BY
1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	JOJ

LICENSER:



78549  
 CIVIL  
 STATE OF CALIFORNIA  
 EXPIRATION DATE: 12-31-20  
 DATE SIGNED: 10-24-19

PROJECT INFORMATION:

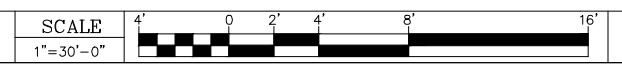
LDRAH-001A  
 5839 GREEN VALLEY CIR.  
 CULVER CITY, CA 90230

SHEET TITLE:

TRAFFIC CONTROL  
 GENERAL NOTES

SHEET NUMBER:

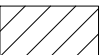





TCP-1

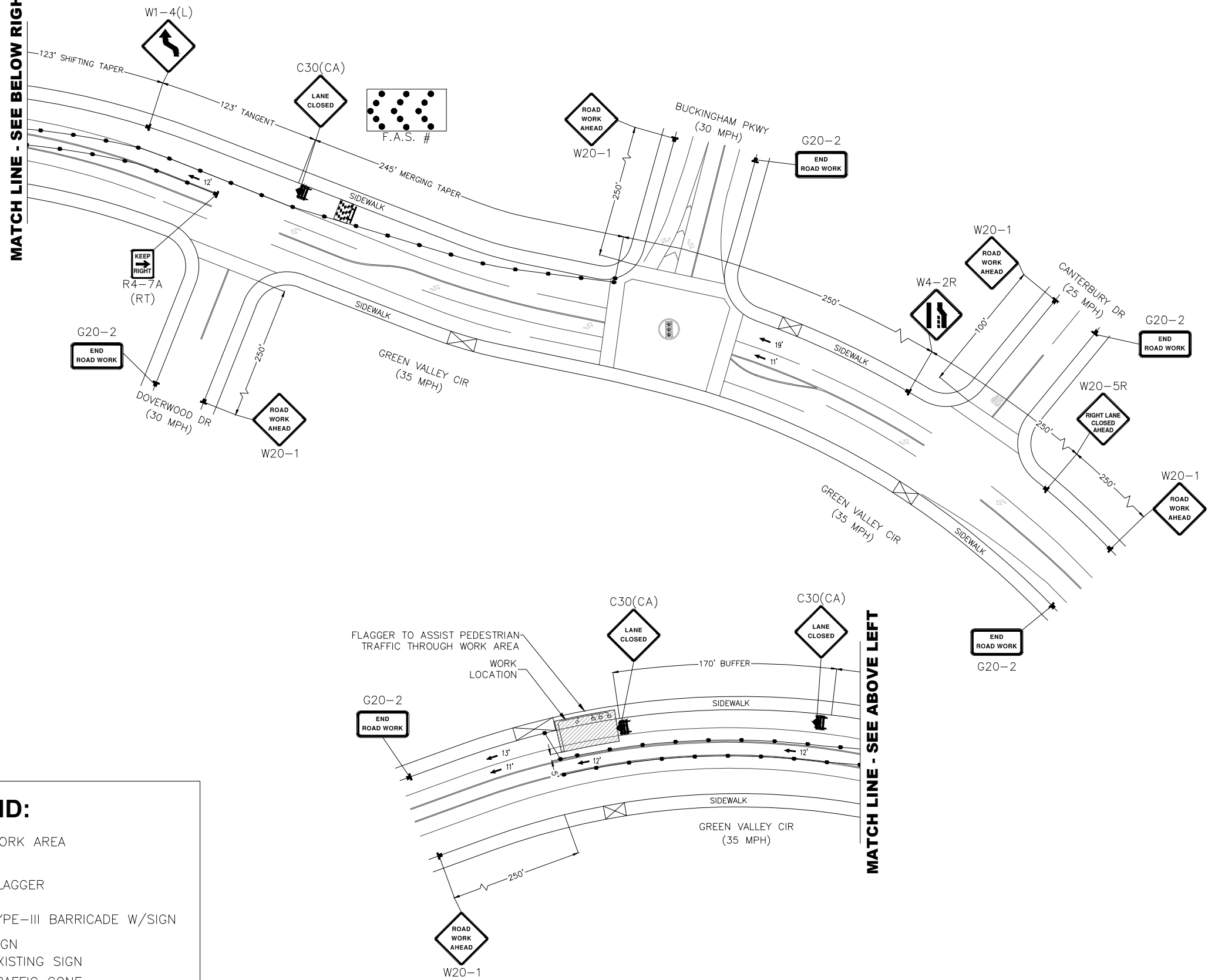


MATCH LINE - SEE BELOW RIGHT


MATCH LINE - SEE ABOVE LEFT

**LEGEND:**

-  WORK AREA
-  FLAGGER
-  TYPE-III BARRICADE W/SIGN
-  SIGN
-  EXISTING SIGN
-  TRAFFIC CONE



APPLICANT:



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TEL: (949) 553-8566  
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DRAWN BY: FE  
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REVISIONS:

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1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	JOJ

LICENSER:



EXPIRATION DATE: 12-31-20  
DATE SIGNED: 10-24-19

PROJECT INFORMATION:

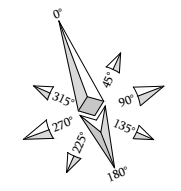
LDRAH-001A  
5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

SHEET TITLE:

TRAFFIC CONTROL PLAN

SHEET NUMBER:

**TCP-2**



APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:



an SFC Communications, Inc. Company  
65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

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A	07/30/19	90% CONSTRUCTION DWG	JOJ

LICENSER:



EXPIRATION DATE: 12-31-20  
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PROJECT INFORMATION:

LDRAH-001A  
5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

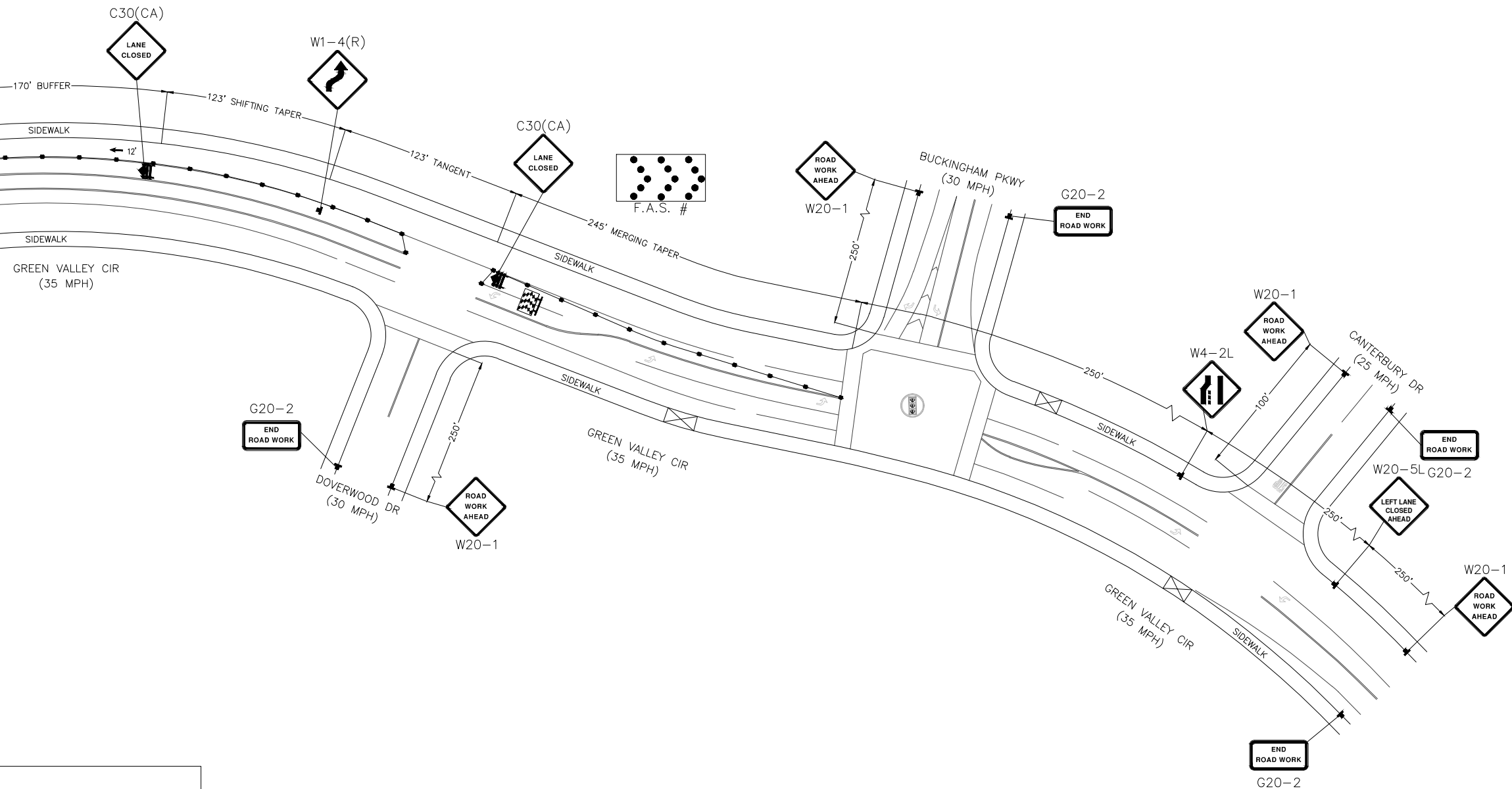
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TRAFFIC CONTROL PLAN

SHEET NUMBER:

TCP-3

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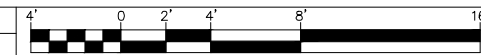


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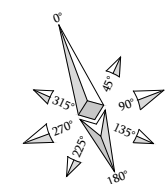
- WORK AREA
- FLAGGER
- TYPE-III BARRICADE W/SIGN
- SIGN
- EXISTING SIGN
- TRAFFIC CONE

**TRAFFIC CONTROL PLAN PHASE 2**

SCALE  
1"=30'-0"



1





APPLICANT:



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TUSTIN, CA 92780

ENGINEER:



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LICENSER:



EXPIRATION DATE: 12-31-20  
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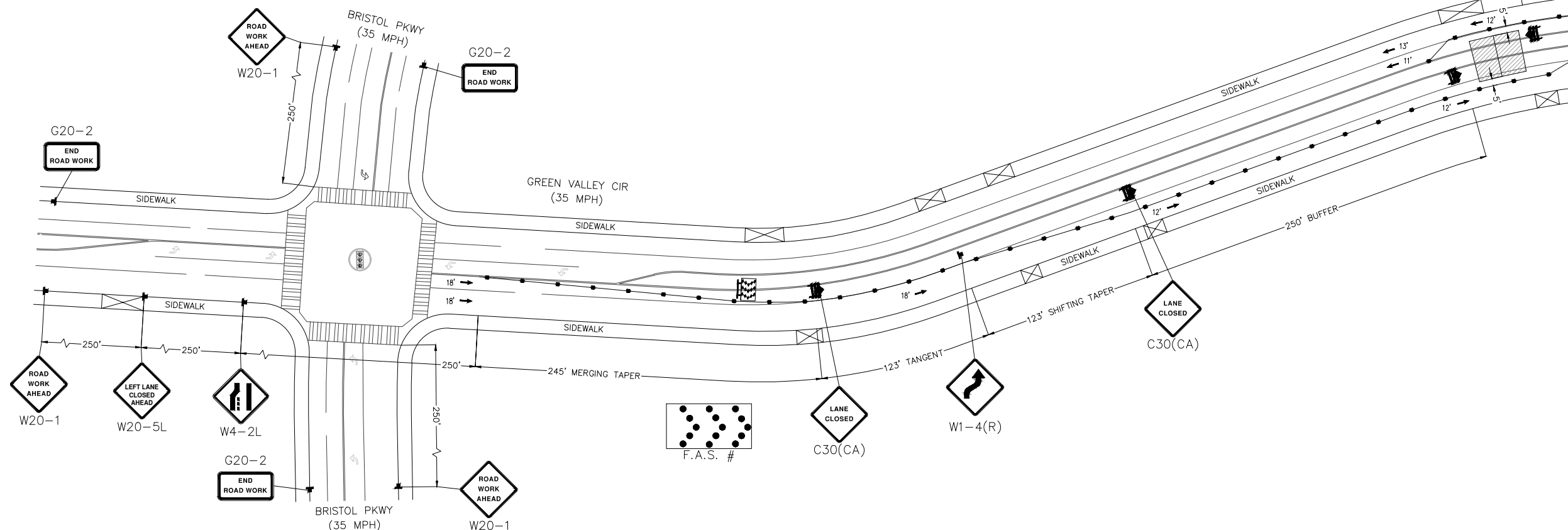
SHEET TITLE:

TRAFFIC CONTROL PLAN

SHEET NUMBER:

TCP-4

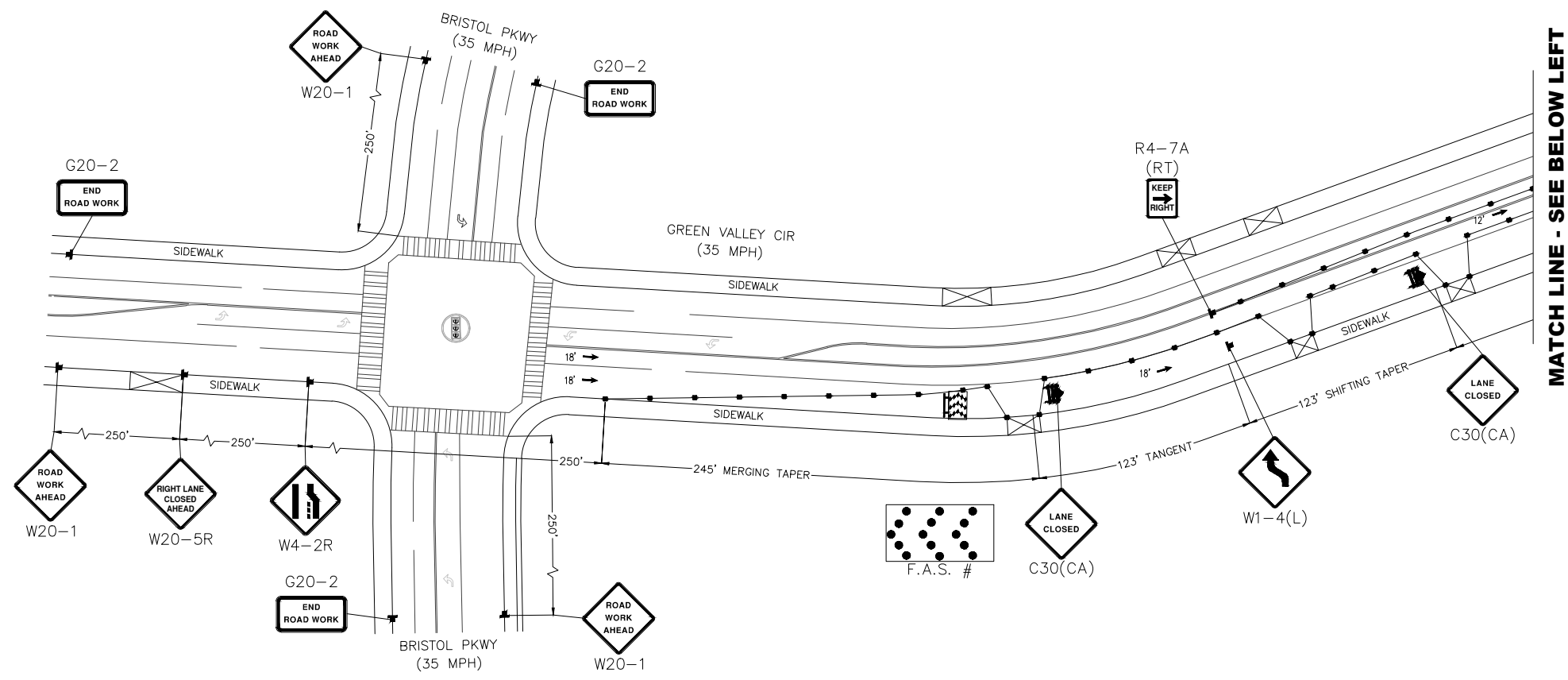
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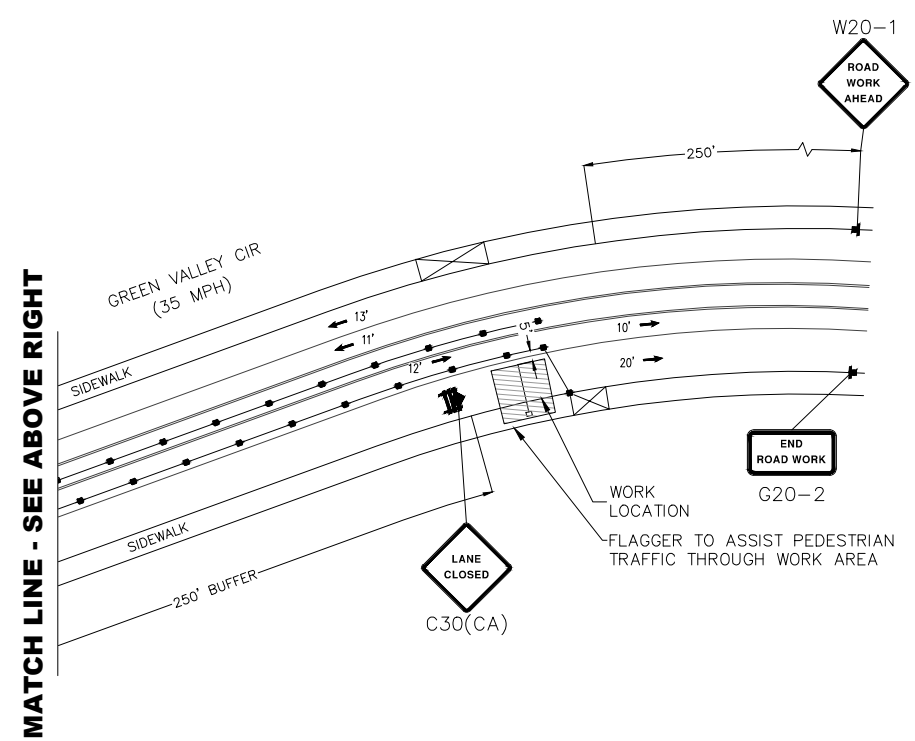
**LEGEND:**

- WORK AREA
- FLAGGER
- TYPE-III BARRICADE W/SIGN
- SIGN
- EXISTING SIGN
- TRAFFIC CONE





MATCH LINE - SEE BELOW LEFT

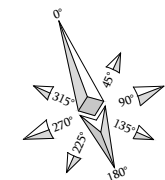
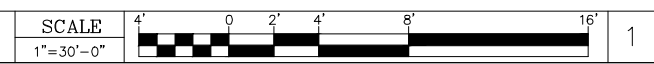


MATCH LINE - SEE ABOVE RIGHT

**LEGEND:**

- WORK AREA
- FLAGGER
- TYPE-III BARRICADE W/SIGN
- SIGN
- EXISTING SIGN
- TRAFFIC CONE

**TRAFFIC CONTROL PLAN PHASE 3**



APPLICANT:

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DRAWN BY: FE  
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REVISIONS:			
REV	DATE	DESCRIPTION	BY
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A	07/30/19	90% CONSTRUCTION DWG	JOJ

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DATE SIGNED: 10-24-19

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5839 GREEN VALLEY CIR.  
CULVER CITY, CA 90230

SHEET TITLE:

TRAFFIC CONTROL PLAN

SHEET NUMBER:

# TCP-5

**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_001A)  
5839 Green Valley Circle • Culver City, California**

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

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of AT&T Mobility, a personal wireless telecommunications carrier, to evaluate its small cell (No. CRAN\_RLOS\_LDRAH\_001A) proposed to be sited in Culver City, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

**Executive Summary**

AT&T proposes to install four small antennas on the municipal light pole sited in the public right-of-way near 5839 Green Valley Circle in Culver City. 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 limit for exposures of unlimited duration at several wireless service bands are as follows:

<u>Wireless Service Band</u>	<u>Transmit Frequency</u>	<u>“Uncontrolled” Public Limit</u>	<u>Occupational Limit (5 times Public)</u>
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm <sup>2</sup>	5.0 mW/cm <sup>2</sup>
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

**General Facility Requirements**

Small cells 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 radios are typically mounted on the support pole or placed in a cabinet at ground level, and they

**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_001A)  
5839 Green Valley Circle • Culver City, California**

are connected to the antennas by coaxial cables. 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”). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

### **Site and Facility Description**

Based upon information provided by AT&T, including drawings by Eukon Group, dated May 27, 2021, it is proposed to install four antennas – one Gamma Nu Model QOYZ9X360F14T 2-foot-tall omnidirectional\* cylindrical and three Ericsson Model 1281 1-foot-tall directional panels – on a new light pole to replace the existing pole sited in the public right-of-way in front of the two-story office building at 5839 Green Valley Circle in Culver City. The Gamma Nu antenna would employ no downtilt and would be mounted within a shroud on top of the pole at an effective height of about 38 feet above ground. The Ericsson antennas would employ up to 15° downtilt, would be mounted below the light arm at an effective height of about 28½ feet above ground, and would be oriented with about 120° spacing, to provide service in all directions. The maximum effective radiated power proposed in any direction is 944.4 watts, representing simultaneous operation at 280 watts for AWS, 240 watts for PCS, and 2.4 watts for Part 15 service at 5 GHz from the Gamma Nu antenna, and at 422 watts<sup>†</sup> for 39 GHz service from the Ericsson antennas. There are reported no other wireless telecommunications base stations at the site or nearby.

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\* Assumed to be omnidirectional, although manufacturer’s patterns show reduced power in certain directions.

† This is the maximum effective radiated power. The manufacturer reports that the antenna transmits 75% of the time in this band; this factor is incorporated into the calculation methodology.



**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_001A)  
5839 Green Valley Circle • Culver City, California**

**Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed AT&T operation is calculated to be 0.011 mW/cm<sup>2</sup>, which is 1.1% of the applicable public exposure limit. The maximum calculated level at any nearby building<sup>‡</sup> is 6.0% 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.

**Recommended Mitigation Measures**

Due to their mounting location and heights, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training be provided to all workers who have access within 10 feet outward from the antennas. No access within 2½ feet directly in front of the antennas should be allowed while they are in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that explanatory signs<sup>§</sup> be posted at the antennas and/or on the pole below the antennas, readily visible from any angle of approach.

**Conclusion**

Based on the information and analysis above, it is the undersigned’s professional opinion that operation of the small cell proposed by AT&T Mobility near 5839 Green Valley Circle in Culver City, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will 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 small cells. Training authorized personnel and posting explanatory signs are recommended to establish compliance with FCC guidelines.

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<sup>‡</sup> Located at least 70 feet away, based on photographs from Google Maps.

<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 guidelines from the landlord, local zoning or health authority, or appropriate professionals may be required.

**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_001A)  
5839 Green Valley Circle • Culver City, California**

**Authorship**

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. 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.



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

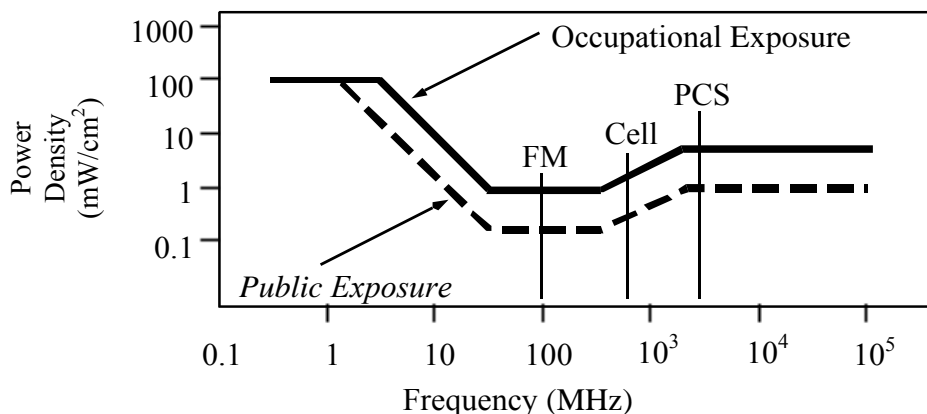
June 22, 2021

## 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 (f 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√f	<i>1.59√f</i>	√f/106	<i>√f/238</i>	f/300	<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 incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.



## 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 antenna, in degrees,

$P_{net}$  = net power input to antenna, in watts,

$D$  = distance from antenna, in meters,

$h$  = aperture height of 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:

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

where  $ERP$  = total ERP (all polarizations), in kilowatts,

$RFF$  = three-dimensional relative field factor toward point of calculation, and

$D$  = distance from antenna effective height to 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 is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_001A)  
5839 Green Valley Circle • Culver City, California**

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

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of AT&T Mobility, a personal wireless telecommunications carrier, to evaluate its small cell (No. CRAN\_RLOS\_LDRAH\_001A) proposed to be sited in Culver City, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

**Executive Summary**

AT&T proposes to install four small antennas on the municipal light pole sited in the public right-of-way near 5839 Green Valley Circle in Culver City. 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 limit for exposures of unlimited duration at several wireless service bands are as follows:

<u>Wireless Service Band</u>	<u>Transmit Frequency</u>	<u>“Uncontrolled” Public Limit</u>	<u>Occupational Limit (5 times Public)</u>
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm <sup>2</sup>	5.0 mW/cm <sup>2</sup>
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

**General Facility Requirements**

Small cells 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 radios are typically mounted on the support pole or placed in a cabinet at ground level, and they

**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_001A)  
5839 Green Valley Circle • Culver City, California**

are connected to the antennas by coaxial cables. 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”). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

### **Site and Facility Description**

Based upon information provided by AT&T, including drawings by Eukon Group, dated May 27, 2021, it is proposed to install four antennas – one Gamma Nu Model QOYZ9X360F14T 2-foot-tall omnidirectional\* cylindrical and three Ericsson Model 1281 1-foot-tall directional panels – on a new light pole to replace the existing pole sited in the public right-of-way in front of the two-story office building at 5839 Green Valley Circle in Culver City. The Gamma Nu antenna would employ no downtilt and would be mounted within a shroud on top of the pole at an effective height of about 38 feet above ground. The Ericsson antennas would employ up to 15° downtilt, would be mounted below the light arm at an effective height of about 28½ feet above ground, and would be oriented with about 120° spacing, to provide service in all directions. The maximum effective radiated power proposed in any direction is 944.4 watts, representing simultaneous operation at 280 watts for AWS, 240 watts for PCS, and 2.4 watts for Part 15 service at 5 GHz from the Gamma Nu antenna, and at 422 watts† for 39 GHz service from the Ericsson antennas. There are reported no other wireless telecommunications base stations at the site or nearby.

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**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_001A)  
5839 Green Valley Circle • Culver City, California**

**Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed AT&T operation is calculated to be 0.011 mW/cm<sup>2</sup>, which is 1.1% of the applicable public exposure limit. The maximum calculated level at any nearby building<sup>‡</sup> is 6.0% 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.

**Recommended Mitigation Measures**

Due to their mounting location and heights, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training be provided to all workers who have access within 10 feet outward from the antennas. No access within 2½ feet directly in front of the antennas should be allowed while they are in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that explanatory signs<sup>§</sup> be posted at the antennas and/or on the pole below the antennas, readily visible from any angle of approach.

**Conclusion**

Based on the information and analysis above, it is the undersigned’s professional opinion that operation of the small cell proposed by AT&T Mobility near 5839 Green Valley Circle in Culver City, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will 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 small cells. Training authorized personnel and posting explanatory signs are recommended to establish compliance with FCC guidelines.

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<sup>‡</sup> Located at least 70 feet away, based on photographs from Google Maps.

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**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_001A)  
5839 Green Valley Circle • Culver City, California**

**Authorship**

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. 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.



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

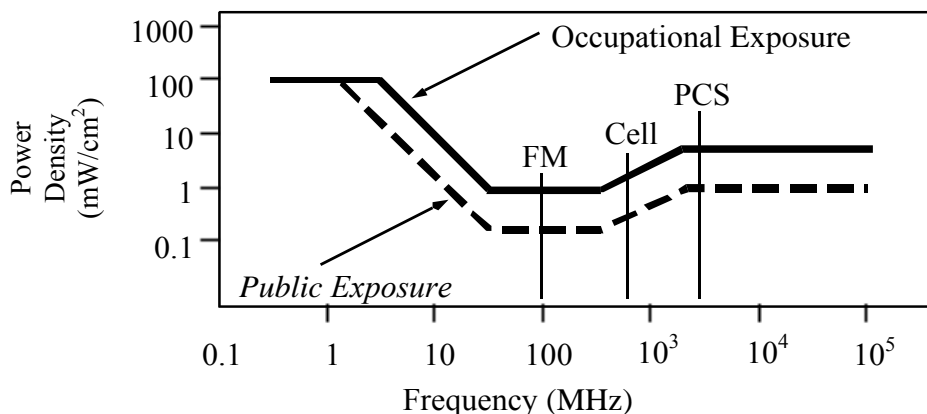
June 22, 2021

## FCC Radio Frequency Protection Guide

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February 14, 2022

Bardo Osorio  
EukonGroup  
1919 Williams St., Suite 200  
Simi Valley, CA 93065  
Email: bardo.osorio@eukongroup.com

**Re: Notice of Approval of Application, AT&T Small Cell LDRAH-004A – 6174  
Buckingham Parkway, U19-0443**

Dear Bardo:

Upon review of AT&T's application and supporting materials, we make the following findings:

1. Per the California Environmental Quality Act ("CEQA"), the State CEQA Guidelines, and the environmental regulations of the City above-referenced wireless facilities qualify as categorically exempt from CEQA pursuant to CEQA Guidelines § 15303(e), New Construction or Conversion of Small Structures;
2. The above-referenced wireless facilities are not detrimental to the public health, safety, and welfare;
3. These facilities comply with all applicable provisions of CCMC Section 11.20.065 and with all applicable design and development standards; and
4. These facilities meet applicable requirements and standards of state and federal law.

As a result, we approve AT&T's above-referenced application. This approval will be contingent upon AT&T complying with all conditions of the related Wireless Utility Permit. Any protests for this approval shall be received within 48 hours of the approval.

Sincerely,



Sammy Romo, P.E.  
Senior Civil Engineer

**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_001A)  
5839 Green Valley Circle • Culver City, California**

**Calculated RF Exposure Levels**

at Elevation of Lower Antennas (27 – 30 feet above ground)



**Legend:**

- less than FCC Public Limit
- greater than FCC Public Limit  
less than FCC Occupational Limit
- greater than FCC Occupational Limit

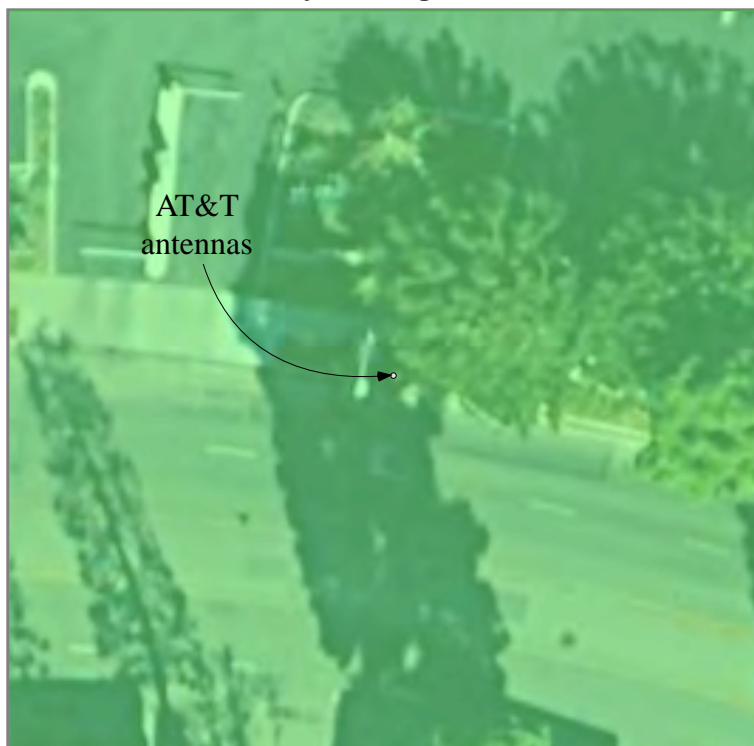
**Notes:**

Calculations performed according to OET Bulletin No. 65, August 1997.

The FCC public limit extends about 10 feet from the lower antennas and about 3½ feet from the upper antenna, not reaching any publicly accessible areas. The FCC occupational limit extends about 2½ feet from the lower antennas; the upper antenna is intrinsically compliant with the occupational limit.

Base image from Google Maps.

at Ground and at Nearby Buildings







PUBLIC WORKS DEPARTMENT

9770 Culver Boulevard, Culver City, California 90232



(310) 253-5600

FAX (310) 253-5626

Yanni Demitri, P.E.  
Public Works Director and  
City Engineer

Mate Gaspar, P.E.  
Engineering Services Manager

February 14, 2022

Bardo Osorio  
EukonGroup  
1919 Williams St., Suite 200  
Simi Valley, CA 93065  
Email: bardo.osorio@eukongroup.com

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Sincerely,

Sammy Romo, P.E.  
Senior Civil Engineer



## **APPLICATION FORM FOR A WIRELESS UTILITY PERMIT TO PLACE FACILITIES IN THE PUBLIC RIGHT-OF-WAY**

### **INSTRUCTIONS:**

Persons applying for a wireless encroachment permit under the City of Culver City Municipal Code (the "Code") for the installation and operation of wireless facilities in the public right-of-way must fill out this application form and submit two (2) physical copies (with all necessary information and documentation) and one electronic copy (with all necessary information and documentation) on a flash drive. All application materials should be submitted in person to the following location:

City of Culver City – Department of Public Works/Engineering Division  
9770 Culver Blvd.  
Culver City, CA 90232

Applications and resubmittals may only be submitted on Mondays and Tuesdays between 8:00 am and 4:00 pm. Please make an appointment to submit your application by calling 310-253-5600.

For additional information regarding application requirements and all other requirements, please review Chapter 11.20 and Section 11.20.065 of the Code and visit the Public Works Telecommunications Utility Permit webpage at: [www.culvercity.org/wireless](http://www.culvercity.org/wireless). For questions, contact the Department of Public Works/Engineering Division at 310-253-5600. If your response to a question includes attachments, label the attachments with exhibit numbers that reflect the Part and Question number to which the exhibit corresponds. As examples: for information requested in Part A, Question 5.a), label the corresponding exhibit as "Exhibit A(5)(a)"; for information requested in Part C, Question 2.a).i, label the corresponding exhibit as "Exhibit C(2)(a)(i)".

### **PART A: BASIC INFORMATION (ALL APPLICANTS)**

**1. Contact Information**

a) The applicant shall submit and maintain current at all times basic contact information set forth below. The applicant shall notify City of any changes to any of this information within fifteen (15) calendar days following any such change. This information shall include the following:

i) The identity, including name, company, address, email, and telephone number of the applicant: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_;

ii) The identity, including name, address, email, and telephone number of the owner of the proposed wireless facility, including official identification numbers and FCC certifications and, if different from the owner, the identity of the person or entity responsible for operating the proposed wireless facility: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_;

iii) If the owner of the structure on which the proposed wireless facility would be installed is different than (ii) above, the identity, including name, address, email, and telephone number of the owner of the structure: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_;

iv) Name, address, email, and telephone number of a local contact person for emergencies: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

**2. Purpose of Wireless Facility**

Is the proposed wireless communications facility to be used for the provision of "personal wireless services" as defined by 47 U.S.C. Section 332(c)(7)(C)(i) on a sole or comingled basis?

No. Specify the type(s) of wireless communications services to be provided using the proposed facility: \_\_\_\_\_.

Yes. Specify the type(s) of personal wireless services: \_\_\_\_\_.



### 3. Type of Application

Please check the applicable box(es) and provide the information required below as an attachment to this Application, along with a written explanation identifying the facts relied upon to support the claimed treatment.

- Eligible Facilities Requests. Applicant asserts that the application qualifies as an “eligible facilities request” (EFR) (as defined in 47 CFR § 1.6100(b)(3), or any successor provision). Applicant shall submit the information required in the Application Requirements Part C, Section 1 below. ***The applicable FCC shot clock is sixty (60) days.***
- Collocation – Small Cell Facility (Existing Structure). Applicant asserts that the application is being submitted for approval of a Collocation of a Small Wireless Facility, that is, the proposed facility both meets the definition of “small wireless facility” and is a “collocation” (both as defined by 47 C.F.R. § 1.6002). Replacements of existing structures are not “collocations”. Applicant shall submit the information required in Part B and the Application Requirements Part C, Section 3 below. ***The applicable FCC shot clock is sixty (60) days.***
- Small Cell Facility (New Structure). Applicant asserts that the application is being submitted for approval to deploy a Small Wireless Facility (as defined by 47 C.F.R. § 1.6002(l)) involving placement of a new structure. Replacements of existing structures are considered new structures. Applicant shall submit the information required in Part B and the Application Requirements Part C, Section 3 below. ***The applicable FCC shot clock is ninety (90) days.***
- Other Wireless Facility Expressly Permitted by State or Federal Law to be in the ROW. Applicant asserts that the application is being submitted for approval of a type of wireless services facility that applicable state or federal laws expressly permit to be in the City’s public rights-of-way. If you checked this box, please attach an explanation of the basis for your assertion, including citations to supporting law, and state what FCC shot clock you assert applies to this application, if any. Submit the information required in the Application Requirements Part C, Section 3 below. Also, complete Part B if you answered yes to Part A, Question 2.
- Permit Renewal. Applicant asserts that the application is being submitted for a renewal of an existing wireless encroachment permit or predecessor permit. If you checked this box, please submit a copy of the original permit, any prior renewals or extensions thereof, and the information required in the Application Requirements Section Part C(2) below.

**Also check the following Waiver Request box if applicable to your application.**

- Waiver Request. Applicant asserts that its application includes a waiver request. Applicant shall include a request for a waiver, as set forth in Section 11.20.065(F)(5) of the Code, and any additional information required in the Application Requirements Part C, Section 4 below. A request for waiver may be submitted at a later time if it is determined that the proposed facility, as originally submitted, will not meet the requirements and restrictions of the Code.

#### 4. Application Fees

Applicant shall pay all applicable fees in the amounts established by the current fee schedule. In the event applicant has pre-paid all or a portion of applicable fees, please include a copy of the receipt from that transaction.

#### 5. Franchises, Authorizations and Licenses

To have a complete application, the applicant must have: (a) authorization to use the public rights-of-way; (b) licenses to provide proposed services; and (c) authorization to use the proposed structure.

- a) Does applicant have an existing franchise or other authorization to place wireless facilities in the public rights-of-way?

No.

If no, the application will be considered incomplete.

Yes.

If yes, explain source of applicant's right to use the public rights-of-way and submit related documentation.

- b) Has applicant obtained all applicable licenses or other authorizations to provide the services proposed in connection with the application, whether required by the Federal Communications Commission, California Public Utilities Commission, or any other agency with authority over the proposed services.

No.

Yes.

If yes, submit related documentation such as FCC licenses or authorizations, a certificate of public convenience and necessity or a wireless identification registration (WIR) from the California Public Utilities Commission.

- c) Is proposed wireless facility to be attached to a structure owned or controlled by a party other than the owner of the proposed wireless facility?

No.

Yes.

If yes, identify the owner as one of the following:

- The City.  
 Other: \_\_\_\_\_(insert name).

If you selected Other, provide a copy of the authorization or license to use the structure.

If you selected the City, select one of the following:

- I have a General Terms and Conditions master license or other agreement with the City for use of the facility. [If you check this box, provide the document.]
- I have no license or other agreement, but I am applying/have applied for one. [If you check this box, the application for a license or agreement must be provided, along with payment or proof of payment of required fees.]
- I have no license or other agreement, and have not applied for a license or other agreement. By checking this box and signing below, you acknowledge and agree that the wireless encroachment permit that is the subject of this application is not a substitute for a license or other agreement to use any City facility, that such license or agreement must be separately applied for and that this wireless encroachment permit application will remain incomplete until the necessary license or other agreement has been approved by the City.

Agreed: \_\_\_\_\_

**PART B: PERSONAL WIRELESS SERVICES FACILITIES (RESPOND IF APPLICABLE)**

1. Based on the work proposed in connection with this project, identify any and all additional permits, approvals, or agreements (“Ancillary Permissions”) you contend must be issued (absent agreement) by the time the City must take action on this wireless application. It is the applicant’s responsibility to review Code, city policies and all state and federal regulations (including, but not limited to, FCC regulations) applicable to the deployment of this wireless facility and to thereby identify all Ancillary Permissions that will be needed before this project can be deployed. The applicant’s failure to conduct a thorough investigation and to identify all required Ancillary Permissions may be grounds for denying this application or for declaring it incomplete. For example, if the proposed wireless facility would be placed on a structure where historical review would be required, the applicant must identify the required historic review permit(s) here. Please identify all Ancillary Permissions that you contend will be required for your wireless project:

- a) \_\_\_\_\_ Fiber Utility Permit
- b) \_\_\_\_\_ Building Permit
- c) \_\_\_\_\_ Electrical Permit



- d) \_\_\_ Traffic Control Permit
- e) \_\_\_ Excavation Permit
- f) \_\_\_ Historical Review Permit
- g) \_\_\_ Other Permit(s). Identify: \_\_\_\_\_

Alternatively, rather than identifying all Ancillary Permissions above, you may agree as follows by signing below: “I agree that, should this wireless application be granted, or granted subject to conditions, no work may be undertaken on the applied-for wireless facility until any required Ancillary Permissions which are not identified above have been applied for and obtained.”

Agreed: \_\_\_\_\_

2. Please provide an attachment that identifies any Ancillary Permissions you identified in response to “1.” (above) and, with respect to each of those Ancillary Permissions, include the following completed checklist:
  - I have the required permit. [If you check this box, attach the required permit.]
  - I don't have this permit, but I am applying or have applied for one. [If you check this box, the application and all fees or proof of payment of all such fees must be provided.]

### **PART C: DETAILED APPLICATION REQUIREMENTS (RESPOND TO RELEVANT SECTIONS)**

The information required to be included in your application is dependent upon whether it is an eligible facilities request, a renewal of an existing permit, or any other application type. Please reference the appropriate section below for your application type to read a detailed list of its requirements. Additionally, regardless of the application type, each applicant must demonstrate their adherence to the *Design and Development Standards for Wireless Facilities in the Public Rights-of-Way* that are adopted by Resolution of the City Council pursuant to Chapter 11.20.065.D.1 of the Code.

1. **ELIGIBLE FACILITIES REQUESTS: *For an application asserted to be an eligible facilities request***, the application must provide the following information:

#### **a) Location and Zoning Information**

- i) Location of the project site, including the nearest registered address, the names of the two nearest cross streets, GPS coordinates, and the present zone designation of the project site.
- ii) If the facility is proposed to be attached to an existing pole, provide the pole number. (To obtain a City-owned streetlight pole Facility ID number and to determine its small cell site status visit: [Streetlight Inventory](#))

- iii) Applicant shall include signed documentation indicating that applicant is the owner or is authorized by the owner of the structure and/or property to install and operate the proposed facility.

**b) Description of the Proposed Project**

- i) A description of the proposed facility(ies), including whether the project is a collocated facility or the replacement, removal, or modification of an existing facility.
- ii) A detailed explanation as to why applicant asserts that the facility constitutes an eligible facilities request, including reference to and analysis of applicable FCC rules as they pertain to the proposed facility.
- iii) A list of all facilities and equipment proposed to be installed and the dimensions, weight, and manufacturer's specifications for each.
- iv) A description of the concealment elements, if any, associated with the facilities as they will be modified, including but not limited to painting, and shielding as modified. The showing should be sufficient to demonstrate that the modifications will not defeat any existing concealment elements. If there will be no concealment elements, so state.
- v) A description of any ground disturbance necessary to complete the proposed project.
- vi) A description of the site and any deployment outside the site necessary to complete the proposed project.
- vii) If a collocation, a description of why this installation qualifies as a collocation within the meaning of the FCC rules.
- viii) A description of all changes made to the facility from the date of the original installation (whether or not approved) and a description of the changes in height since January 22, 2012.
- ix) A description of all changes to be made to the existing base station and/or tower, including, among other things, identifying precisely what changes will be made to the supporting structure.

**c) Prior Approvals/Permits**

- i) A copy of all approvals and/or permits for the tower or base station that is to be modified, and any subsequent modification approvals and/or permits, and of any required conditions (imposed by the City and/or third party) placed on the initial or subsequent approvals and/or permits.
- ii) A showing that the facility, as modified, will be in compliance with existing conditions of the underlying approval(s)/permit(s), whether or not it is in compliance with conditions as of the date of application. There must be a plan submitted for correction of any non-compliant condition.

**d) Site Plan**

- i) Three (3) copies of a facility site plan, at a scale of 1"=20' or larger, and including the following:
  - (1) A north-pointing arrow on each plan sheet;
  - (2) Title block with applicant's name, owner's name, and contact information;
  - (3) Depiction of the fully-constructed proposed facility;
  - (4) Location of lot lines, streets (with street names), easements, and all structures and improvements, including accessory equipment, underground utilities and support structures, existing and proposed;
  - (5) Existing and proposed elevations of all facilities, equipment, support structures, appurtenances, and other related structures;
  - (6) Slopes, contours, trees and other pertinent physical features of the site, existing and proposed;
  - (7) All exterior lighting on the site, existing and proposed;
  - (8) As to the nearest structure located on any properties abutting the site on which you are proposing to install your wireless facility, the location and use of that structure as well as the distance from that structure to the property line of the site on which you are proposing to install your wireless facility; and
  - (9) The location of parking for maintenance personnel.

**e) Site Photograph(s)**

- i) Current color photographs of the site and its surroundings.

**f) Visual Impact Analysis**

- i) A visual impact analysis, which shall include photomontage, photo simulation or similar technique, demonstrating, from all four primary directions (north, south, east, and west) the potential visual impacts of the proposed facility. Consideration shall be given to views from public areas as well as from private property.

**g) Noise**

- i) Operation of wireless facilities shall comply with the noise regulations set in Chapters 9.04 and 9.07 of the Code and the noise element of the General Plan. Demonstrate compliance by providing, among other relevant information, a description of the facilities and/or equipment within the applicant's project that are expected to induce or generate noise, as well as anticipated noise levels of said facilities and/or equipment. For facilities that generate noise, please provide testing data for noise assuming maximum facility utilization and operational utilization (worst



case) 10 feet from the source. Specify times and conditions during which noise generation will occur.

#### **h) FCC Radio Frequency Standards**

- i) A report signed by a California licensed professional engineer, with expertise in radio communications facilities and the calculation of radio frequency emissions, that affirms, under penalty of perjury, that the proposed installation will be compliant with the FCC's standards. The report must also contain the following:
  - (1) A description of each of the proposed antennas and all related fixtures, structures, appurtenances and apparatus, including the height above grade, volume in total cubic feet, materials, lighting, and the directionality of each antenna (e.g., omni, directional, etc.);
  - (2) The frequency, modulation and class of service;
  - (3) A clear identification of areas, both vertically and horizontally, where exposure levels will exceed FCC standards for general public and occupational exposures. Please note that applicant's analysis must show that it has appropriately taken cumulative exposures into account, and should show exposures based on "worst case" scenarios;
  - (4) A certification that the facility will comply with all applicable standards for radio frequency emissions, including cumulative effects, and a description of the manner in which the radio frequency emissions for the facility were calculated and the results of those calculations. Individual and cumulative emissions should be evaluated; and
  - (5) If the certification of the facility as currently installed, or as proposed to be modified, is subject to conditions designed to limit general public or occupational exposure, identify those conditions, and demonstrate that they have been satisfied, or describe when they will be satisfied.

#### **i) Structural Analysis**

- i) A report signed by a California licensed professional engineer qualified in structural engineering, containing the following:
  - (1) In the case of a wireless facility attached to existing infrastructure, documentation of the ability of the structure to support the antennas, the proposed method of affixing the antennas and the precise point at which the antennas shall be mounted;
  - (2) In the case of a facility with a support structure (e.g. monopole), documentation demonstrating: 1) that the structure is capable of supporting the antennas (and any other equipment to be attached to or supported by the support structure); 2) that the structure complies

with applicable laws and codes; 3) the structure's capacity for additional collocated antennas; 4) the precise point at which the antennas shall be mounted; and

- (3) A certification that the structure(s) on which the wireless facility (including all accessory equipment, such as radios, cabinets, etc.) will be placed can safely support the wireless facility; and that all elements of the wireless facility comply with applicable safety standards, including, without limitation, GO 95, 165, and 166.

**j) Notice**

- i) Evidence that notice has been given consistent with Attachment 1 to all necessary parties.

**2. RENEWAL REQUESTS: *For a renewal of an existing permit*, the application must provide the following information:**

**a) Location and Zoning Information**

- i) Location of the project site, including the nearest registered address, the names of the two nearest cross streets, GPS coordinates, and the current zone designation of the project site.
- ii) If the existing facility is attached to a pole, provide the pole number. (To obtain a City-owned streetlight pole Facility ID number and to determine its small cell site status visit: [Streetlight Inventory](#))
- iii) Applicant shall include signed documentation indicating that applicant is authorized by the owner of the support structure and/or real property to continue operating the facility.

**b) Description of the Project for Renewal**

- i) A description of the existing facility(ies).
- ii) A list of all facilities and equipment currently installed and the dimensions, weight, and manufacturer's specifications for each.
- iii) A written description of the concealment measures applicant is using to aesthetically blend the facility to the immediate surroundings and to minimize its visual impact. This should include, but not be limited to, a description of concealment techniques, sizing and placement of elements of the facility (including undergrounding), measures to limit visibility of the facility from residential dwelling units, and the textures and colors used in the concealment process. If none, so state.
- iv) A description of the site and any deployment outside the site.
- v) A description of all changes made to the facility from the date of the original installation (whether or not approved) and a description of the changes in height since January 22, 2012.

**c) Prior Approvals/Permits**

- i) A copy of all approvals and/or permits for the tower or base station and any subsequent modification approvals and/or permits, and of any required conditions (imposed by the City and/or third party) placed on the initial or subsequent approvals and/or permits.
- ii) A showing that the facility is in compliance with existing conditions of the underlying approval(s)/permit(s). If the facility is not in compliance with conditions as of the date of application, there must be a plan submitted for correction of any non-compliance condition.

**d) Facility Plan and Photograph(s)**

- i) Three (3) copies of the existing facility plan at a scale of 1"=20' or larger and including a north-pointing arrow on each sheet and title block with applicant's name, owner's name, and contact information.
- ii) Current color photographs of the facility and its surroundings.

**e) Visual Impact Analysis**

- i) A visual impact analysis, which shall include photographs, demonstrating from all four primary directions (north, south, east, and west) the visual impacts of the existing facility. Consideration shall be given to views from public areas as well as from private property.

**f) Noise**

- i) Operation of wireless facilities shall comply with the noise regulations set in Chapters 9.04 and 9.07 of the Code and the noise element of the General Plan. Demonstrate continued compliance by providing, among other relevant information, a description of the facilities and/or equipment within the applicant's project that induce or generate noise, as well as the noise levels of said facilities and/or equipment. For facilities that generate noise, please provide testing data for noise assuming maximum facility utilization and operational utilization (worst case) 10 feet from the source. Specify times and conditions during which noise generation will occur.

**g) FCC Radio Frequency Standards**

- i) A report signed by a California licensed professional engineer with expertise in radio communications facilities and the calculation of radio frequency emissions that affirms, under penalty of perjury, that the existing facility is compliant with the FCC's standards. The report must also contain the following:

- (1) A description of each of the antennas and all related fixtures, structures, appurtenances and apparatus, including the height above grade, volume in total cubic feet, materials, lighting, and the directionality of each antenna (e.g., omni, directional, etc.);
- (2) The frequency, modulation and class of service;
- (3) A clear identification of areas, both vertically and horizontally, where exposure levels exceed FCC standards for general public and occupational exposures. Please note that applicant's analysis must show that it has appropriately taken cumulative exposures into account, and should show exposures based on "worst case" scenarios;
- (4) A certification that the facility is in compliance with all applicable standards for radio frequency emissions, including cumulative effects, and a description of the manner in which the radio frequency emissions for the facility were calculated and the results of those calculations. Individual and cumulative emissions should be evaluated; and
- (5) If the certification of the facility as currently installed is subject to conditions designed to limit general public or occupational exposure, identify those conditions, and demonstrate that they have been satisfied, or describe when they will be satisfied.

#### **h) Structural Analysis**

- i) A report signed by a California licensed professional engineer qualified in structural engineering, containing the following:
  - (1) In the case of a wireless facility attached to existing infrastructure, documentation of the ability of the structure to continue to support the antennas and any required maintenance;
  - (2) In the case of a facility with a support structure (e.g. monopole), documentation that the structure is capable of continuing to support the antennas (and any other equipment attached to or supported by the support structure) and complies with applicable laws and codes, as well as the structure's capacity for additional collocated antennas; and
  - (3) A certification that the structure(s) on which the wireless facility (including all accessory equipment, such as radios, cabinets, etc.) is placed can continue to safely support the wireless facility; and that all elements of the wireless facility comply with applicable safety standards, including, without limitation, GO 95, 165, and 166.

#### **i) Notice**

- i) Evidence that notice has been given consistent with Attachment 1 to all necessary parties.



**3. ALL OTHER APPLICATIONS: *For all other types of applications*, the following must be provided:**

**a) Location and Zoning Information**

- See project plans, T1 i) Location of the project site, including the nearest registered address, the names of the two nearest cross streets, GPS coordinates, and the present zone designation of the project site.
- See project plans, T1 ii) If the facility is proposed to be attached to an existing utility pole, provide the pole number. (To obtain a City-owned streetlight pole Facility ID number and to determine its small cell site status visit: [Streetlight Inventory](#))
- See LOA iii) Applicant shall include signed documentation indicating that applicant is authorized by the owner of the support structure and/or real property to install and operate the proposed facility.

**b) Description of the Proposed Project**

- See project plans, T1 i) A description of the proposed facility(ies), including whether the project is a new facility, a collocated facility, or a modification to an existing facility.
- See Narrative ii) If the application is for a small cell facility, an explanation asserting all of the grounds why the proposed facility constitutes a small cell facility.
- See Narrative iii) If a new facility, the applicant shall include an explanation of whether the new facility could and will be designed to accommodate future wireless facilities.
- See project plans iv) A list of all facilities and equipment proposed to be installed and the dimensions, weight, and manufacturer's specifications for each.
- See Narrative v) A written description of the concealment measures applicant proposes to use to aesthetically blend the facility to the immediate surroundings and to minimize its visual impact. This should include, but not be limited to, a description of proposed concealment techniques, sizing and placement of elements of the facility (including undergrounding proposed), measures proposed to limit visibility of the facility from residential dwelling units, and the textures and colors to be used in the concealment process. If none, so state.
- Boring will be used for excavation of trenches and related hand holes. See project plans, sheets A1 and A2. vi) A description of any ground disturbance necessary to complete the proposed project.
- vii) A description of the site and any deployment outside the site necessary to complete the proposed project. N/A
- viii) If a collocation, a description of why this installation qualifies as a collocation within the meaning of the FCC rules. Applicant must also provide the following:
- Not a collocation (1) A description of all installation procedures and plans for the facility; and

- (2) A description of all changes to be made to the existing structure, which description will, among other things, identify precisely what changes will be made to the supporting structure.

### **c) Prior Approvals/Permits**

N/A - no existing wireless facility

- i) If a wireless facility already exists on the site, provide the following:
- (1) A copy of all approvals and/or permits for the tower or base station that is to be modified, and any subsequent modification approvals and/or permits, and of any required conditions (imposed by the City and/or third party) placed on the initial or subsequent approvals and/or permits.
  - (2) A showing that the facility, as modified, will be in compliance with existing conditions, whether or not it is in compliance with conditions as of the date of application. There must be a plan submitted for correction of any non-compliant condition.

### **d) Site Plan**

See project plans

- i) Three (3) copies of a facility site plan at a scale of 1"=20' or larger and including the following:
- (1) A north-pointing arrow on each plan sheet;
  - (2) Title block with applicant's name, owner's name, and contact information;
  - (3) Depiction of the fully-constructed proposed facility;
  - (4) Location of lot lines, streets (with street names), easements, and all structures and improvements, including accessory equipment, underground utilities and support structures, existing and proposed;
  - (5) Existing and proposed elevations of all facilities, equipment, support structures, appurtenances, and other related structures
  - (6) Slopes, contours, trees and other pertinent physical features of the site, existing and proposed;
  - (7) All exterior lighting on the site, existing and proposed;
  - (8) Location use and approximate distance from property lines of the nearest structures on all properties abutting the site; and
  - (9) The location of parking for maintenance personnel.

N/A

### **e) Landscape Plan**

- i) If any landscaped ground will be disturbed, three (3) copies of a landscape plan for the site, at a scale of 1/8"=1' or larger, and including the following:
- (1) Existing trees within fifty feet (50') of the proposed wireless communication facility;
  - (2) Species, diameter and condition of all such trees;

- (3) Final disposition of all existing trees; and
- (4) Species, location and sizes of trees and other vegetation proposed to be installed in conjunction with the wireless communication facility.

#### **f) Site Photograph(s)**

See Photosimulations i) Current color photographs of the site and its surroundings.

#### **g) Visual Impact Analysis**

See visual impact analysis i) A visual impact analysis, which shall include photomontage, photo simulation or similar technique, demonstrating, from all four primary directions (north, south, east, and west) the potential visual impacts of the proposed facility. Consideration shall be given to views from public areas as well as from private property. The analysis shall assess the cumulative impacts of the proposed wireless communication facility and other existing wireless facilities in the area, and shall identify and include all feasible mitigation measures consistent with the technological requirements of the proposed facility.

#### **h) Noise**

See noise study i) Operation of wireless facilities shall comply with the noise regulations set in Chapters 9.04 and 9.07 of the Code and the noise element of the General Plan. Demonstrate compliance by providing, among other relevant information, a description of the facilities and/or equipment within the applicant's project that are expected to induce or generate noise, as well as anticipated noise levels of said facilities and/or equipment. For facilities that generate noise, please provide testing data for noise assuming maximum facility utilization and operational utilization (worst case) 10 feet from the source. Specify times and conditions during which noise generation will occur.

#### **i) FCC Radio Frequency Standards**

See EME - RF Study i) A report signed by a California licensed professional engineer with expertise in radio communications facilities and the calculation of radio frequency emissions that affirms, under penalty of perjury, that the proposed installation will be compliant with the FCC's standards. The report must also contain the following:

- (1) A description of each of the proposed antennas and all related fixtures, structures, appurtenances and apparatus, including the height above grade, volume in total cubic feet, materials, lighting, and the directionality of each antenna (e.g., omni, directional, etc.);

- (2) The frequency, modulation and class of service;
- (3) A clear identification of areas, both vertically and horizontally, where exposure levels will exceed FCC standards for general public and occupational exposures. Please note that applicant's analysis must show that it has appropriately taken cumulative exposures into account, and should show exposures based on "worst case" scenarios;
- (4) A certification that the facility will comply with all applicable standards for radio frequency emissions, including cumulative effects, and a description of the manner in which the radio frequency emissions for the facility were calculated and the results of those calculations. Individual and cumulative emissions should be evaluated; and
- (5) If the certification of the facility as currently installed, or as proposed to be modified, is subject to conditions designed to limit general public or occupational exposure, identify those conditions, and demonstrate that they have been satisfied, or describe when they will be satisfied.

#### **j) Structural Analysis**

- See Structural Analysis
- i) A report signed by a California licensed professional engineer qualified in structural engineering, containing the following:
    - (1) In the case of a wireless facility attached to existing infrastructure, documentation of the ability of the structure to support the antennas, the proposed method of affixing the antennas and the precise point at which the antennas shall be mounted;
    - (2) In the case of a facility with a support structure (e.g. monopole), documentation that the structure is capable of supporting the antennas (and any other equipment to be attached to or supported by the support structure) and complies with applicable laws and codes, as well as the structure's capacity for additional collocated antennas, and the precise point at which the antennas shall be mounted; and
    - (3) A certification that the structure(s) on which the wireless facility (including all accessory equipment, such as radios, cabinets, etc.) will be placed can safely support the wireless facility; and that all elements of the wireless facility comply with applicable safety standards, including, without limitation, GO 95, 165, and 166.

#### **k) Notice**

- i) Evidence that notice has been given consistent with Attachment 1 to all necessary parties.



**I) Justification for Location/Collocation**

See Alternate Site Analysis

- i) A justification as to why the applicant chose the location for the proposed wireless communication facility. Such justification shall include a written assessment of not less than two (2) alternative locations considered by the applicant and the reasons why said alternative locations were rejected as candidates.
- ii) A written explanation of the applicant’s investigation into collocating the proposed facility with an existing facility. Indicate whether collocation is or is not feasible and why.

**m) Map of Applicant’s Existing Wireless Facilities and Coverage Assessment**

See RF Propagation Maps

- i) A map and narrative description of all existing wireless facility sites used by the applicant which are located within the City, and any wireless facility sites located outside of the City but which provide coverage within any part of the City.


**4. WAIVER REQUEST [if applicable]**

N/A

- a) If it is contended that the City is required by federal or state law to approve the facility, applicant must submit the information it relies upon to support that claim, identifying: (i) the legal standard it claims applies; (ii) the showings it relies upon for its claim; (iii) alternative legal standards that may apply that it claims to meet; and (iv) the showings it relies upon for those claims. Applicants are cautioned that, should they choose not to submit with respect to items (iii) and (iv), and the City believes that applicant misapplies or relies on the wrong legal standard, the waiver (and consequently the application) may be denied.

**PART D: CERTIFICATION (ALL APPLICANTS)**

I (we) hereby certify under penalty of perjury that (1) after diligent investigation, the information provided pursuant to this Application Form is true, accurate, and complete to the best of my (our) knowledge and belief; and (2) upon completion of the work proposed, the permitted personal wireless services facility will comply with all applicable laws, regulation, practices or other requirements under federal, state, or local law, including, but not limited to, building and electrical codes, the FCC’s radio frequency emissions standards, and the requirements of the Americans with Disabilities Act.

	10-28-19
Applicant’s Signature	Date

Adrian Culici  
 \_\_\_\_\_  
 Applicant’s Printed Name

## Attachment 1

All applicants for Wireless Encroachment Permits shall comply with the following notice requirements:

1. Notice of the applicant's pending application shall be mailed, by the applicant to the businesses and residences within a 500 foot radius of each of the proposed wireless facilities.
2. The contents of the mailed notice shall include, at a minimum:
  - a. A description of the location of each proposed wireless facility with sufficient specificity to allow notice recipients to be able to locate the involved location without requiring any additional information
  - b. Photo simulations of the proposed installation
  - c. The manner in which additional information may be obtained
  - d. Any other information deemed necessary by the Director of Public Works or his/her designee
3. The applicant shall also post the notice in compliance with the following specifications:
  - a. In a conspicuous place at the location of the proposed wireless facility
  - b. Be 12 square feet in sign area
  - c. A minimum of 4 feet in height from the ground level with a maximum height of 8 feet
  - d. Not be illuminated
  - e. Include the name and telephone number of the applicant
  - f. Include the telephone number of the Public Works Department
  - g. Contain only lettering whose size, style and color have been approved by the Director of Public Works
  - h. Include photo simulations of the proposed wireless facility
  - i. Remain in place until completion of construction and final approval by the City
  - j. Be removed, by the applicant, no later than 10 days after completion of construction and final approval of the project by Culver City
4. Submit to the Director of Public Works an affidavit verifying that the applicant has mailed and posted notices in full compliance with these notice requirements.



# Small Cell LDRAH 04

## Culver City - Alternative Sites Analysis

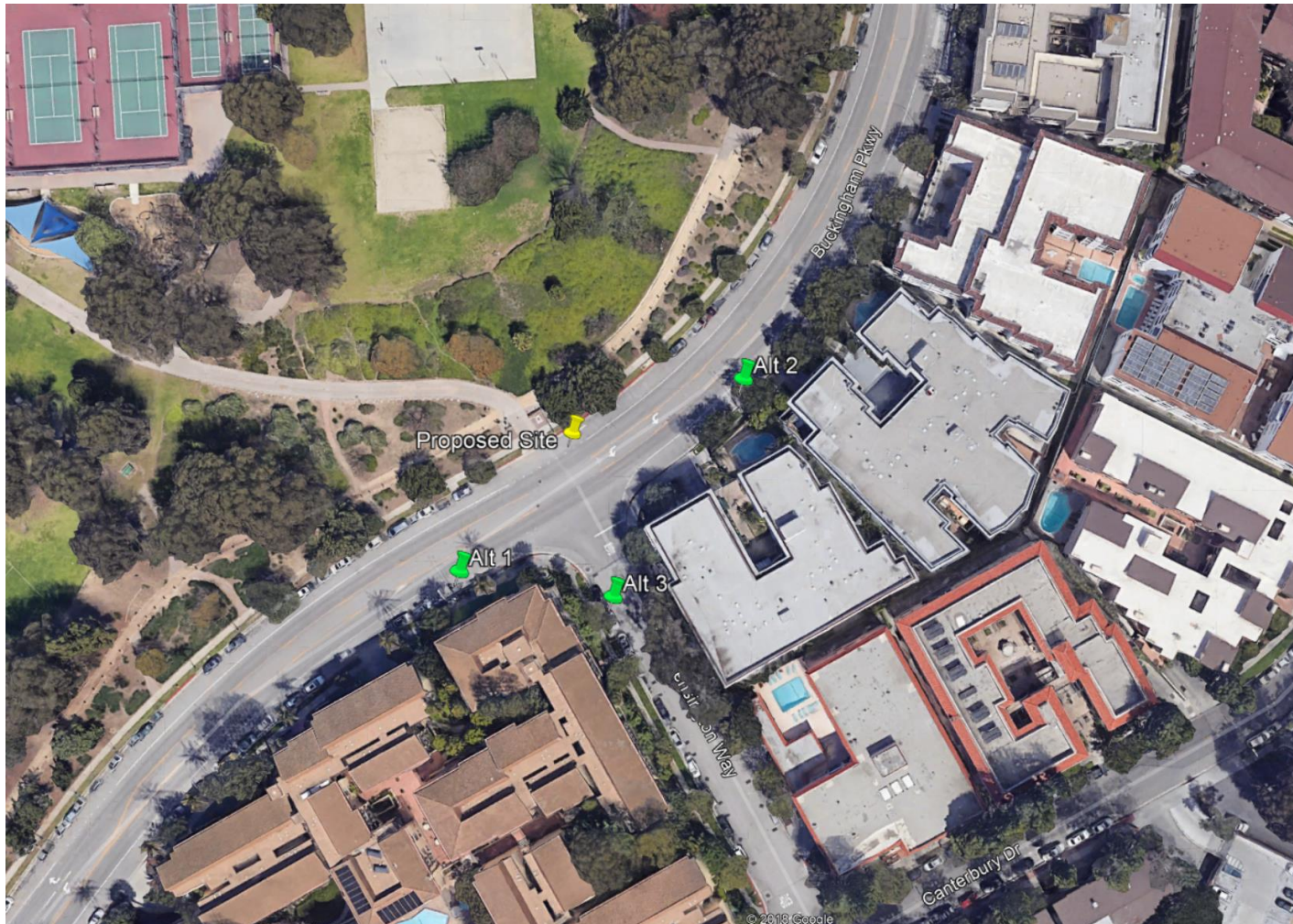


## Proposed Small Cell LDRAH 04

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Culver City, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than construct several additional macro facilities throughout the residential neighborhoods of Culver City, AT&T is choosing to deploy very small facilities, called “small cells,” that can be deployed on utility infrastructure in the public rights-of-way.
- A small cell is a low-powered cell site, which, when grouped with other small cells, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each small cell antenna spans over a shorter range than a conventional macro site, small cells can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- Small Cell LDRAH 04 will help close AT&T’s significant service coverage gap in this portion of the County by the least intrusive means.



## Map of Proposed Small Cell LDRAH 04 and Alternative Sites



On this aerial map, AT&T's Proposed Small Cell LDRAH 04 is designated as **Proposed Site** and the alternative sites are identified by **Alt 1**, **Alt 2** and **Alt 3**.





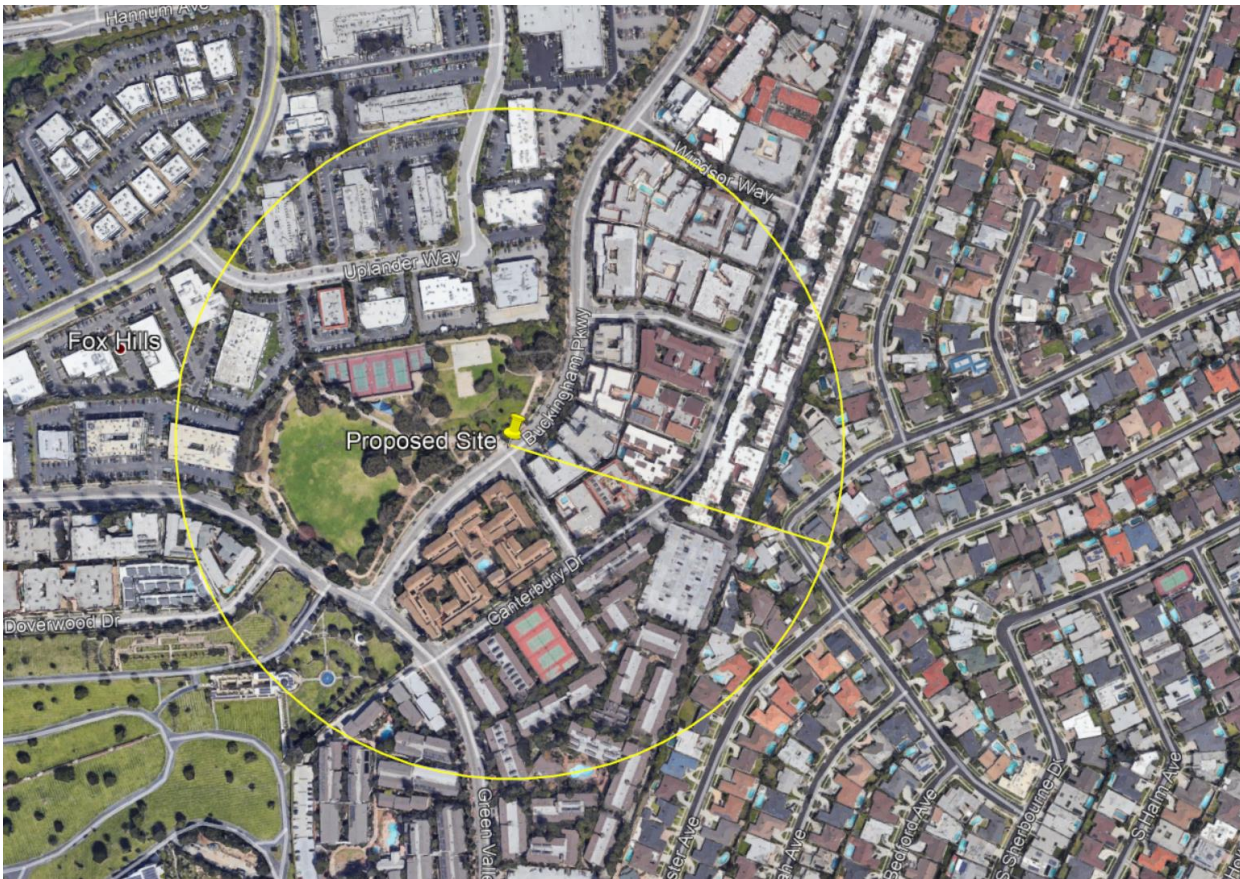
## Proposed Small Cell LDRAH 04



- Proposed Small Cell LDRAH 04 will be located in the public right-of-way on an existing wood utility pole near 6174 Buckingham Parkway (Lat/Long: 33.983344, -118.384822).
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective.
- AT&T identified this as the least intrusive alternative.



# Small Cell LDRAH 04 – Collocation Alternatives



- AT&T first examined the area for collocation possibilities on existing Wireless Telecommunications Facilities (“WTF”) in the vicinity for establishing Small Cell LDRAH 04.
- Upon review of the area within 1000’, AT&T determined that there are no existing WTF’s available for a small cell collocation in the vicinity.





## Small Cell LDRAH 04 – Alternative 1



- This Alternative to Small Cell LDRAH 04 would be to locate on a utility pole in the public right-of-way near 6201 Buckingham Pkw, (Lat/Long: 33.983059, -118.385034).
- This pole is a viable alternative to help close AT&T's significant service coverage gap, in that power and necessary utilities are available at the location.
- This alternate is closer to habitable structures than the proposed (15' vs 85'), thus its visual impact is greater.





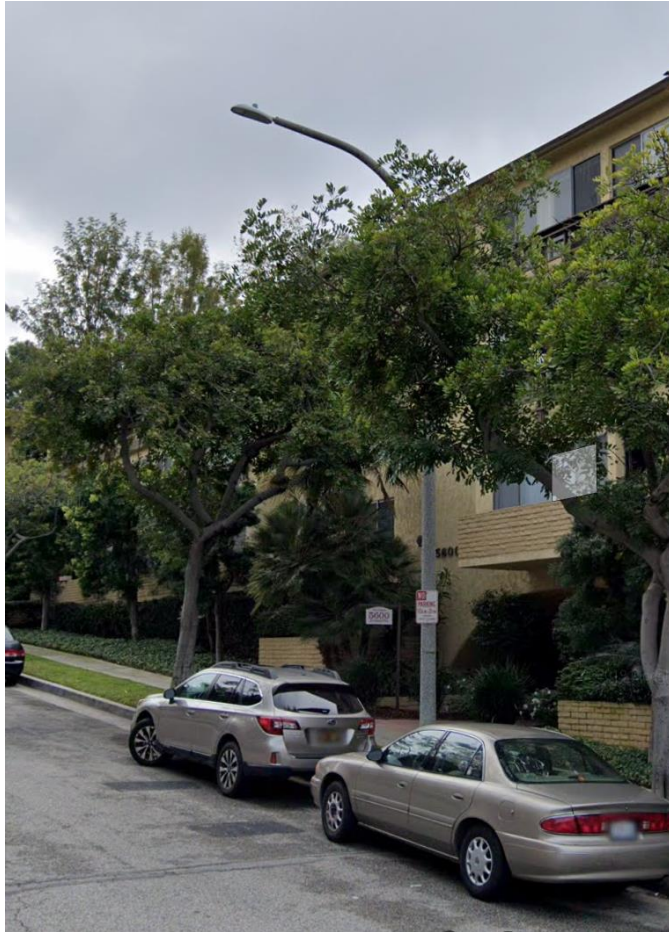
## Small Cell LDRAH 04 – Alternative 2



- This Alternative to Small Cell LDRAH 04 would be to locate on a utility pole in the public right-of-way near 6101 Buckingham Pkw, (Lat/Long: 33.983429, -118.384426).
- This pole is a viable alternative to help close AT&T's significant service coverage gap, in that power and necessary utilities are available at the location.
- This alternate is closer to habitable structures than the proposed (15' vs 85'), thus its visual impact is greater.



## Small Cell LDRAH 04 – Alternative 3



- This Alternative to Small Cell LDRAH 04 would be to locate on a utility pole in the public right-of-way near 5699 Kensington Way, (Lat/Long: 33.982953, -118.384692).
- This pole is a viable alternative to help close AT&T's significant service coverage gap, in that power and necessary utilities are available at the location.
- This alternate is closer to habitable structures than the proposed (15' vs 85'), thus its visual impact is greater.



## Proposed Small Cell LDRAH 04 - Conclusion

- Proposed Small Cell LDRAH 04 is an integral part of an overall small cell solution to help close AT&T's significant service coverage gap in this portion of Los Angeles County.
- Small Cell LDRAH 04 will provide wireless telecommunications services and faster data rates to the area businesses, residences & visitors.
- Small Cell LDRAH 04 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low-profile equipment to utility infrastructure in the public right-of-way.





# LDRAH - 04

6174 Buckingham Pkwy., Culver City, CA 90230



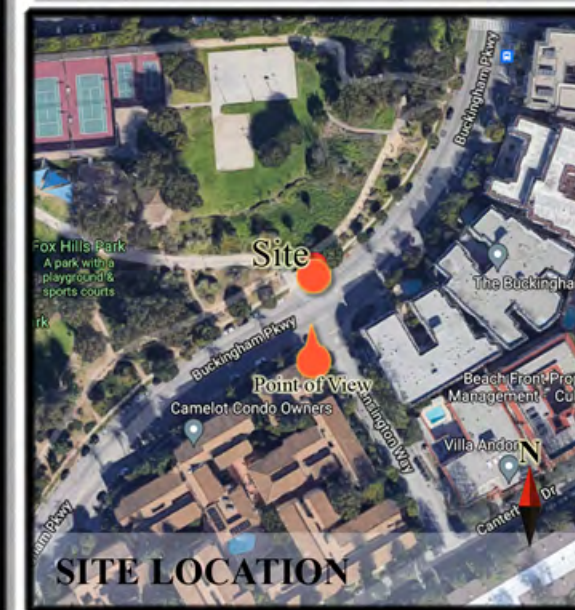
Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



**PROPOSED VIEW SOUTH**



**EXISTING VIEW SOUTH**



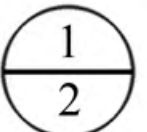
**SITE LOCATION**

### SITE COORDINATES

**Latitude:** 33.983344°

**Longitude:** -118.384822°

**SHEET NUMBER**







# LDRAH - 04

6174 Buckingham Pkwy., Culver City, CA 90230



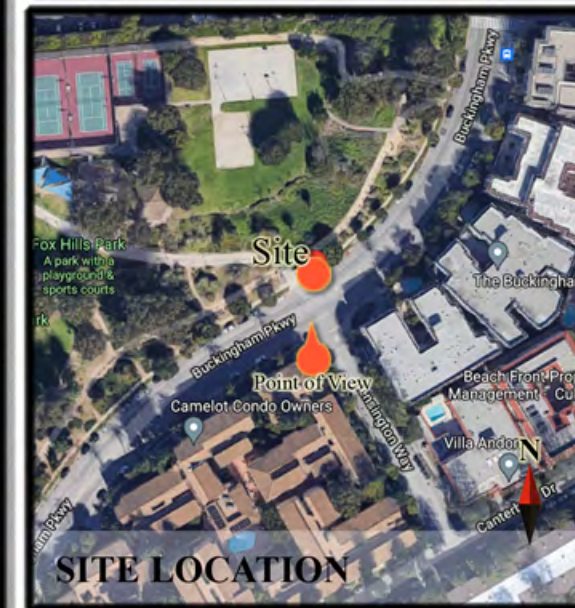
Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



**PROPOSED VIEW SOUTH**



**EXISTING VIEW SOUTH**



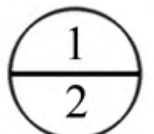
**SITE LOCATION**

### SITE COORDINATES

**Latitude:** 33.983344°

**Longitude:** -118.384822°

**SHEET NUMBER**







# LDRAH - 04

6174 Buckingham Pkwy., Culver City, CA 90230



Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



**PROPOSED VIEW EAST**



**EXISTING VIEW EAST**



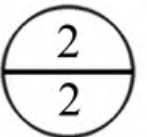
**SITE LOCATION**

### SITE COORDINATES

**Latitude:** 33.983344°

**Longitude:** -118.384822°

**SHEET NUMBER**







# LDRAH - 04

6174 Buckingham Pkwy., Culver City, CA 90230



Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



**PROPOSED VIEW EAST**



**EXISTING VIEW EAST**



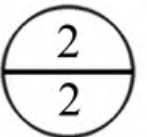
**SITE LOCATION**

### SITE COORDINATES

**Latitude:** 33.983344°

**Longitude:** -118.384822°

**SHEET NUMBER**





# EXHIBIT H1-A

1. THE EQUIPMENT SHALL BE REMOVED, AND THE SITE RETURNED TO ORIGINAL CONDITION IF CARRIER ABANDONS SITE.

**CITY NOTES**

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- 2019 CALIFORNIA ADMINISTRATIVE CODE
- 2019 CALIFORNIA BUILDING CODE
- 2019 CALIFORNIA ELECTRIC CODE
- 2019 CALIFORNIA MECHANICAL CODE
- 2019 CALIFORNIA PLUMBING CODE
- 2019 CALIFORNIA FIRE CODE
- ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOVE
- CITY/COUNTY ORDINANCES

HANDICAP REQUIREMENTS:  
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA ADMINISTRATIVE STATE CODE PART 2, TITLE 24, CHAPTER 11B, SECTION 1103B.

**CODE COMPLIANCE**

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS NEW.

**GENERAL NOTES**



TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN CALIFORNIA (SOUTH), CALL DIG ALERT  
TOLL FREE: 1-800-422-4133 OR www.digalert.org

CALIFORNIA STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

**Know what's below. Call before you dig.**

PROPERTY OWNER: PUBLIC RIGHT OF WAY  
POLE OWNER: CITY OF CULVER  
POWER PROVIDER: SOUTHERN CALIFORNIA EDISON (SCE)  
P.O. BOX 700  
ROSEMEAD, CA 91770  
CONTACT: YOLANDA HUNTER  
PHONE: (909) 477-6471

APPLICANT: AT&T  
ADDRESS: 1452 EDINGER AVE.  
TUSTIN, CA 92780

LATITUDE (NAD83): 33° 59' 00.04" N  
33.983344°

LONGITUDE (NAD 83): 118° 23' 05.36" W  
-118.384822°

LONGITUDE/LATITUDE TYPE: NAD 83  
GROUND ELEVATION (NAVD 88): ±86.87' AMSL  
ADJACENT APN #: 4134-007-037  
JURISDICTION: CITY OF CULVER  
CURRENT ZONING: PUBLIC RIGHT OF WAY  
NEW USE: UNMANNED TELECOMMUNICATIONS

**SITE INFORMATION**

PROJECT MANAGER: EUKON  
1919 WILLIAMS STREET, SUITE 360  
SIMI VALLEY, CA 93065  
CONTACT: CHRISTOPHER AYLIA  
PHONE: (805) 864-0378  
EMAIL: Christopher.Aylya@eukongroup.com

OSP ENGINEER: EUKON  
65 POST, SUITE 1000  
IRVINE, CA 92615  
CONTACT: AARON JONES  
PHONE: (949) 547-2077  
EMAIL: Aaron.Jones@eukongroup.com

SAC/ZONING/PERMITTING: EUKON  
1919 WILLIAMS STREET, SUITE 360  
SIMI VALLEY, CA 93065  
CONTACT: BARDO OSORIO  
(714) 702-0566  
EMAIL: bardo.osorio@eukongroup.com

CONSTRUCTION MANAGER: BOUCHARD COMMUNICATIONS  
11231 BURBANK BLVD.  
NORTH HOLLYWOOD, CA 91601  
CONTACT: KIRK BOUCHARD  
PHONE: (818) 761-2154  
EMAIL: kb@boucharcommunication.com

RF ENGINEER: AT&T  
1452 EDINGER AVE.  
TUSTIN, CA 92780  
CONTACT: TEJ BURGULA  
EMAIL: tb861h@att.com

SENIOR TECHNICAL PROJECT MANAGER: AT&T  
1452 EDINGER AVE., 2ND FLOOR,  
TUSTIN, CA 92780  
CONTACT: OMAR MERE  
EMAIL: om5039@att.com

**PROJECT TEAM**

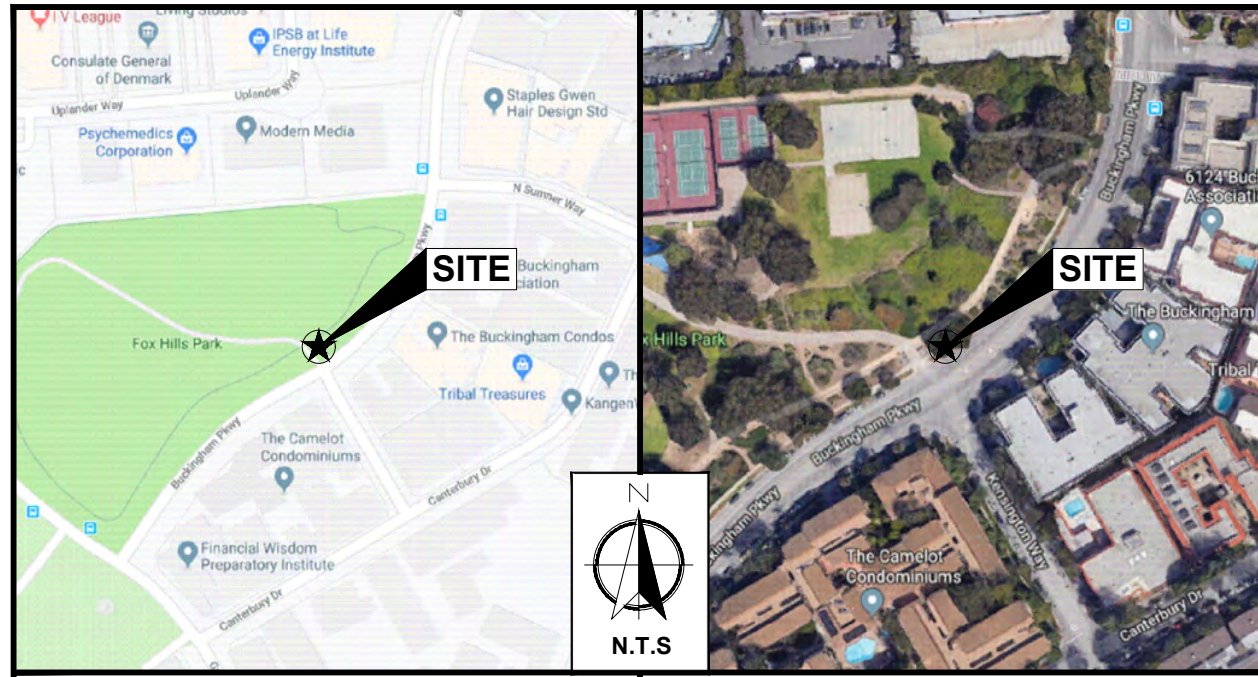
SITE NAME: LDRAH - 004A  
SITE NUMBER: CRAN - RLOS - LDRAH - 004A  
PROJECT: CRAN / SMALL CELL  
USID: 268957  
PACE #: MRLOS058666

APPROVED for compliance with Engineering Division requirements  
*N. P. Llanos*  
City of Culver City  
See Below Date

Permit number U19-0443.  
Approved on 02/14/2022. Call Public Works Inspector before starting work: 951-741-8191



PICO / NEW DAVIT REPLACEMENT LIGHT POLE  
POLE I.D. # : SL-L10-29  
6174 BUCKINGHAM PARKWAY  
CULVER CITY, CA 90230



VICINITY MAP LOCAL MAP

DIRECTIONS FROM AT&T OFFICE: 1452 EDINGER AVE. TUSTIN, CA 92780. HEAD NORTHEAST TOWARD AT&T. TURN LEFT TOWARD AT&T. TURN RIGHT ONTO AT&T. TURN LEFT ONTO EDINGER AVE. USE THE LEFT 2 LANES TO TURN LEFT ONTO DEL AMO AVE. USE THE RIGHT 2 LANES TO TAKE THE RAMP ONTO CA-55 NSTATE RTE 55 N. MERGE ONTO CA-55 NSTATE RTE 55 N. USE THE RIGHT 2 LANES TO TAKE EXIT 10B TO MERGE ONTO I-5 N TOWARD SANTA ANA. USE THE RIGHT 2 LANES TO TAKE EXIT 113C TO MERGE ONTO CA-91 W/STATE HWY 91 W. USE THE RIGHT 2 LANES TO TAKE EXIT 17B TO MERGE ONTO I-605 N. USE THE RIGHT 2 LANES TO TAKE EXIT 9B TO MERGE ONTO I-105 W/CENTURY FWY. USE THE RIGHT 3 LANES TO TAKE EXIT 2B TO MERGE ONTO I-405 N TOWARD SANTA MONICA. TAKE EXIT 49B TO MERGE ONTO SEPULVEDA BLVD TOWARD SLAUSON AVE. MERGE ONTO SEPULVEDA BLVD. TURN RIGHT ONTO GREEN VALLEY CIR. TURN LEFT ONTO BUCKINGHAM PKWY. DESTINATION WILL BE ON THE LEFT.

DRIVING DIRECTIONS

IF USING 11"X17" PLOT, DRAWINGS WILL BE HALF SCALE

**CONSTRUCTION DRAWING**

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & MAY IMPOSE CHANGES OR MODIFICATIONS.

APPROVED BY:	INITIALS:	DATE:
AT&T RF ENGINEER:		
AT&T OPERATIONS:		
SITE ACQUISITION MANAGER:		
PROJECT MANAGER:		
ZONING VENDOR:		
LEASING VENDOR:		
CONSTRUCTION MANAGER:		
A/E MANAGER:		
PROPERTY OWNER:		
UTILITY:		

**APPROVALS**

AT&T PROPOSES TO INSTALL A NEW WIRELESS FACILITY. THE SCOPE WILL CONSIST OF THE FOLLOWING:

- AT&T MOBILITY TO REMOVE (E) STREET LIGHT AND REPLACE WITH NEW CONCEALFAB STREET LIGHT
- AT&T MOBILITY TO INSTALL NEW FOUNDATION
- INSTALL (1) OMNI ANTENNA A TOP NEW POLE MOUNTED SHROUD
- INSTALL (3) 5G ANTENNAS
- INSTALL (2) NEW RADIO 4402 MOUNTED WITHIN NEW SHROUD
- INSTALL (1) NEW FUTURE RADIO MOUNTED WITHIN NEW SHROUD
- INSTALL (2) NEW 17"X30"X18" PULL BOXES
- INSTALL (1) NEW DISCONNECT SWITCH WITH INTEGRATED SURGE PROTECTION WITHIN PULL BOX
- INSTALL (1) 2" AT&T MOBILITY FIBER CONDUIT FROM FIBER PULL BOX TO SITE POLE
- TRENCH FOR POWER FROM PULL BOX TO SITE POLE
- TRENCH FOR FIBER FROM PULL BOX TO SITE POLE

**PROJECT DESCRIPTION**

SHEET	DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES, LEGEND AND ABBREVIATIONS
A-1	SITE PLAN
A-2	ENLARGED SITE PLAN
A-3	NEW AND EXISTING SOUTHWEST ELEVATIONS
A-4	NEW AND EXISTING SOUTHEAST ELEVATIONS
A-5	SITE IMAGE
A-6	EQUIPMENT DETAILS
A-7	CONSTRUCTION DETAILS
E-1	ELECTRICAL AND GROUNDING DETAILS
UD-1	SCE FINAL POWER DESIGN
UD-2	SCE FINAL POWER DESIGN
TCP-1	TRAFFIC CONTROL PLAN
TCP-2	TRAFFIC CONTROL PLAN
TCP-3	TRAFFIC CONTROL PLAN
TCP-4	TRAFFIC CONTROL PLAN

**SHEET INDEX**

SUBCONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

**DO NOT SCALE DRAWINGS**

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:



an SFC Communications, Inc. Company


65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

CHECKED BY A&E: FE  
CHECKED BY OSP: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
4	08/02/21	CITY COMMENTS	AS
3	06/07/21	FINAL POWER	MG
2	03/08/21	EQUIPMENT CHANGE PER ATT	MP
1	10/23/19	FOUNDATION UPDATE	WI
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	AS

LICENSER:



EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

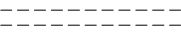
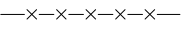




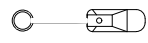
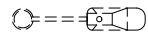













PROJECT INFORMATION:

LDRAH - 004A  
6174 BUCKINGHAM PARKWAY  
CULVER CITY, CA 90230

SHEET TITLE:  
**TITLE SHEET**

SHEET NUMBER:  
**T-1**



SYMBOL	DESCRIPTION
EOD	EDGE OF DIRT
W/L	WHITE LINE
ROW	RIGHT OF WAY
EOP	EDGE OF PAVEMENT
C/L	CENTER LINE
C/F	CURBSFACE
P/L	PROPERTY LINE
	EXISTING CUT
	FENCE
	WALL
	DRIVEWAY
	BUSHES
	TREE
	STREET LIGHT SITE POLE
	STREET LIGHT EXISTING
	JPA SITE POLE
	UTILITY POLE EXISTING
	PARKING METER/STREET SIGN
	DOWN GUY
	FIRE HYDRANT
	UTILITY VALVE
	UTILITY MANHOLE
	SEWER MANHOLE
	SQUARE VENT
	ROUND VENT
	DIG-ALERTS
	(POC) POINT OF CURBSFACE
	ADA CURB RAMP

LEGEND AND ABBREVIATIONS

INTENT
<ol style="list-style-type: none"> <li>THESE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE DONE &amp; THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.</li> <li>THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.</li> <li>THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.</li> <li>MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.</li> </ol>
CONFLICTS
<ol style="list-style-type: none"> <li>THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED IN THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSIONS WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.</li> <li>THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING WHICH SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.</li> <li>NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.</li> </ol>
WARRANTIES & BONDS
<ol style="list-style-type: none"> <li>CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.</li> <li>SEE MASTER CONTRACTOR SERVICES AGREEMENT FOR ADDITIONAL DETAILS.</li> </ol>
STORAGE
<ol style="list-style-type: none"> <li>ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK.</li> <li>BTS CABINETS MUST BE STORED INSIDE UNTIL THERE IS POWER ON SITE.</li> <li>STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.</li> </ol>
RELATED DOCUMENTS AND COORDINATION
<ol style="list-style-type: none"> <li>GENERAL CONSTRUCTION, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.</li> </ol>
CHANGE ORDER PROCEDURE
<ol style="list-style-type: none"> <li>CHANGE ORDERS MAY BE INITIATED BY THE OWNER AND/OR THE CONTRACTOR INVOLVED. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE OWNER SHALL PREPARE A WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT TO THE OWNER WITHIN 72 HRS FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES IN THE SCOPE OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED &amp; APPROVED BY THE OWNER SHALL PLACE FULL RESPONSIBILITY OF THESE ACTIONS ON THE CONTRACTOR.</li> </ol>
SHOP DRAWINGS
<ol style="list-style-type: none"> <li>CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE DRAWINGS TO THE OWNER FOR APPROVAL.</li> <li>ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.</li> </ol>

1 GENERAL NOTES

GENERAL NOTES AND CONDITIONS
PRODUCTS & SUBSTITUTIONS
<ol style="list-style-type: none"> <li>SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.</li> <li>SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS &amp; MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.</li> </ol>
CODE COMPLIANCE
<ol style="list-style-type: none"> <li>ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE BUT NOT BE LIMITED TO THE LATEST VERSION OF THE FOLLOWING: <ul style="list-style-type: none"> <li>2019 CALIFORNIA ENERGY CODE</li> <li>2019 CALIFORNIA BUILDING CODE</li> <li>2019 CALIFORNIA ELECTRICAL CODE</li> <li>2019 CALIFORNIA FIRE CODE</li> <li>2019 CALIFORNIA GREEN BUILDING CODE</li> <li>2019 CALIFORNIA MECHANICAL CODE</li> <li>2019 CALIFORNIA PLUMBING CODE</li> <li>GO95/GO128</li> </ul> </li> </ol>
INSURANCE AND BONDS
<ol style="list-style-type: none"> <li>CONTRACTOR SHALL AT THEIR OWN EXPENSE CARRY AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL INSURANCE AS REQUIRED AND LISTED.</li> <li>CONTRACTOR SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER.</li> <li>THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.</li> <li>REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.</li> </ol>
ADMINISTRATION
<ol style="list-style-type: none"> <li>BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL BE DEVELOPING A MASTER SCHEDULE FOR THE PROJECT WHICH WILL SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.</li> <li>SUBMIT A BAR TYPE PROGRESS CHART NOT MORE THAN THREE (3) DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OF WORK TO BE PERFORMED AT THE SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK &amp; SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE SITE.</li> <li>PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE (THOUGH NOT LIMITED TO) THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).</li> <li>CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.</li> <li>DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL AT&amp;T MOBILITY SAFETY REQUIREMENTS IN THEIR AGREEMENT.</li> <li>PROVIDE WRITTEN DAILY UPDATES AND PHOTOGRAPHS OF ON SITE PROGRESS TO THE PROJECT MANAGER VIA E-MAIL.</li> <li>A COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.</li> <li>NOTIFY THE OWNER / PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.</li> <li>CLOSEOUT PACKAGE IS DUE COMPLETE WITH DETAILED TOP PHOTOS UPON SITE PUNCHWALK WITH PROJECT MANAGER (SEE PROJECT MANAGER FOR SAMPLE CLOSEOUT PACKAGE).</li> </ol>
CLEAN UP
<ol style="list-style-type: none"> <li>THE CONTRACTOR SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK. AT THE COMPLETION OF THE WORK, THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY FOR USE.</li> <li>VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES &amp; OTHER FOREIGN MATTER.</li> <li>REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.</li> <li>IF NECESSARY TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.</li> </ol>

2


GENERAL NOTES:
<ol style="list-style-type: none"> <li>INDEMNIFICATION CLAUSE: THE CONTRACTOR AGREES AND SHALL: <ul style="list-style-type: none"> <li>ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THAT THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNITY AND HOLD AT&amp;T MOBILITY, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.</li> <li>PRIOR TO THE BEGINNING OF ANY CONSTRUCTION AND THROUGHOUT THE COURSE OF CONSTRUCTION WORK, THE CONTRACTOR SHALL FULLY COMPLY WITH "CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH" ACT OF 1973 INCLUDING ALL REVISIONS AND AMENDMENTS THERETO.</li> <li>ALL WORK SHALL CONFORM TO THE LATEST EDITION OF GO 95, 128, AND THE STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", AS ADOPTED BY THE CITY, COUNTY OR STATE AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.</li> <li>THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCIES FACILITIES AS SHOWN HEREON ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST. THE CONTRACTOR SHALL VERIFY PRIOR TO THE START OF CONSTRUCTION AND SHALL USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY OR AGENCY FACILITIES WITHIN THE LIMITS OR WORK, WHETHER THEY ARE SHOWN ON THIS PLAN OR NOT.</li> <li>THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (800) 422-4133, AT LEAST TWO WORKING DAYS PRIOR TO THE START OF ANY EXCAVATION.</li> <li>THE CONTRACTOR SHALL NOTIFY THE CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT AT LEAST TWO DAYS BEFORE THE START OF ANY WORK REQUIRING THEIR INVOLVEMENT.</li> <li>ALL WORK AREA AND STREET TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE WORK AREA TRAFFIC CONTROL BOOK AND SPECIFICATIONS FROM THE CITY, COUNTY OR STATE.</li> <li>THE CITY, COUNTY OR STATE SHALL SPECIFY THE EXPIRATION PERIOD OF THE PERMIT FOR THIS CONSTRUCTION PROJECT.</li> <li>THE MINIMUM COVER FOR ALL CONDUITS PLACED UNDERGROUND SHALL BE 36 INCHES TO THE FINISHED GRADE AT ALL TIMES.</li> <li>THE CONTRACTOR SHALL HDD OR OPEN TRENCH ALL CURB AND GUTTERS, CONCRETE DRIVEWAYS AND WALKWAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE INSPECTOR.</li> <li>ALL AC. AND/OR CONCRETE PAVEMENT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEERS.</li> <li>ALL SHRUBS, PLANTS OR TREES THAT HAVE BEEN DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK, SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.</li> <li>IF DAMAGE OCCURS TO THE CITY OR COUNTY FACILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY, TRAFFIC CONTROL LIGHTING AND STREET LIGHTING</li> <li>AT LEAST TWO DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK, NOTIFY THE POLICE TRAFFIC BUREAU AND THE FIRE DEPARTMENT.</li> <li>THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROCESSING OF ALL APPLICATION PERMIT FORMS ALONG WITH THE REQUIRED LIABILITY INSURANCE FORMS, CLEARLY DEMONSTRATING THAT THE CLIENT, THE CITY, COUNTY OR STATE AS ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE IN THE AMOUNT OF \$ 1,000,000.00 FOR THIS CONSTRUCTION PROJECT.</li> <li>VAULTS, PEDESTALS, CONDUITS AND OTHER TYPES OF SUBSTRUCTURE ARE EITHER SPECIFIED ON THIS PLAN OR WILL BE SPECIFIED BY THE CONSTRUCTION ENGINEER. ANY AND ALL DEVIATIONS FROM THE SPECIFIED TYPES OF MATERIAL MUST BE APPROVED BY THE SYSTEM ENGINEER, IN WRITING BEFORE INSTALLATION THEREOF.</li> <li>ALL U.G. CONDUIT MUST BE SCHEDULE 40 OR BETTER.</li> <li>CONDUIT REQUIREMENTS: <ul style="list-style-type: none"> <li>UG-SCHEDULE 40 EXCEPT ALL RADIUS CONDUITS TO BE SCH. 80 RISERS-SCHEDULE 80.</li> </ul> </li> <li>GROUND REQUIREMENTS: <ul style="list-style-type: none"> <li>5/8" ROD-10' LENGTH</li> <li>#2 GROUND WIRE</li> <li>WOOD MOLDING, STAPLED EVERY 3' AND AT EACH END GROUNDS 2' FROM POLE.</li> </ul> </li> <li>POWER REQUIREMENT FOR 3 WIRE SERVICE 120/240V.</li> <li>CONTRACTOR SHALL NOTIFY POWER &amp; TELCO COMPANIES THREE DAYS PRIOR TO START OF CONSTRUCTION FOR CONDUIT INSPECTION.</li> <li>ANY AND ALL PROPOSED SITE MODIFICATIONS, EXPANSION, OR REARRANGEMENT OF THIS CELLULAR SITE MUST BE COMPLIANT WITH ALL GO 95, AND GO 128 REGULATIONS AS PRESCRIBED BY STATE LAW. FUTURE EXPANSION OF THIS CELLULAR SITE MUST BE APPROVED BY THE DESIGNING ENGINEERING FIRM OR AN EQUALLY QUALIFIED ENGINEERING COMPANY.</li> </ul> </li> </ol>

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:




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IRVINE, CA 92618  
TEL: (949) 553-8566  
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CHECKED BY A&E:	FE
CHECKED BY OSP:	AJ

REVISIONS:			
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LICENSER:



EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRAH - 004A  
6174 BUCKINGHAM PARKWAY  
CULVER CITY, CA 90230

SHEET TITLE:

GENERAL NOTES, LEGEND AND ABBREVIATIONS

SHEET NUMBER:

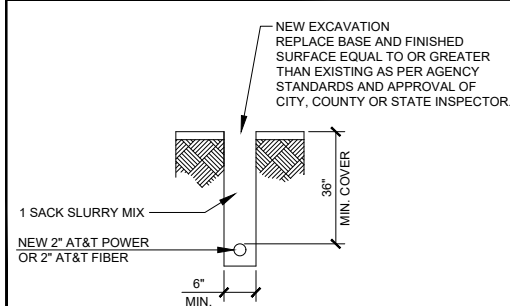
T-2

- NOTES:**
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPERTY OWNER & NECESSARY UTILITY COMPANIES FOR THE LOCATION OF ALL EXISTING BELOW GRADE UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE COSTS ASSOCIATED WITH EXISTING BELOW GRADE UTILITIES.
  - CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.
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  - CONTRACTOR TO CALL DIG ALERT (800)-227-2600 A MINIMUM OF 48 HRS PRIOR TO EXCAVATING FOR UNDERGROUND UTILITY LOCATIONS. CONTRACTOR IS RESPONSIBLE TO HAVE ALL NONPUBLIC UTILITIES LOCATED AT THEIR OWN EXPENSE.
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**NOTE TO CONTRACTOR:**  
CONCRETE SIDEWALKS SHALL BE SAWCUT TO THE NEAREST SCORE MARK AND BE REPLACED EQUAL IN DIMENSION TO THAT REMOVED.

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**UTILITY LINETYPE LEGEND:**

POWER	_____	E	_____
PHONE	_____	T	_____
WATER	_____	W	_____
SEWER	_____	S	_____
STORM DRAIN	_____	SD	_____
GAS	_____	G	_____
GASOLINE	_____	GS	_____
OIL	_____		_____

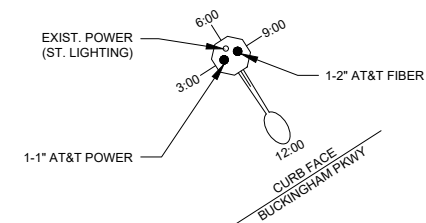
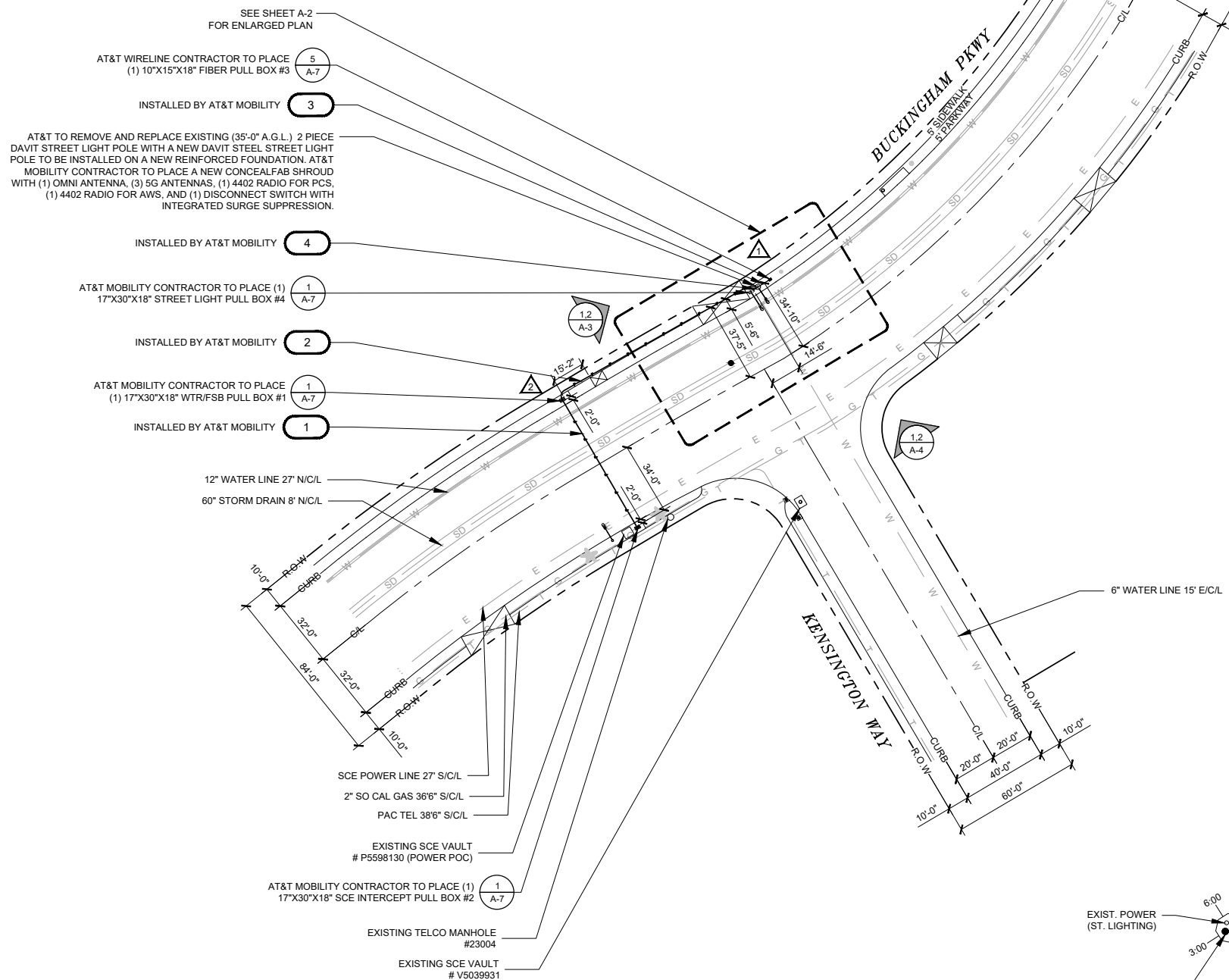
**811** Know what's below. Call before you dig.

**NEW ITEM # DESCRIPTION**

1	6'-0" FIBER PULL BOX # 3 TO SITE POLE (1) 2" SCH. 40 PVC CONDUIT (AT&T FIBER)
2	108'-0" (WTR/FSB) PULL BOX #1 TO SITE POLE (1) 2" SCH. 40 PVC CONDUIT (AT&T POWER)
3	68'-0" (WTR/FSB) PULL BOX #1 TO SCE INTERCEPT PULL BOX #2 (1) 3" SCH. 40 PVC CONDUIT (SCE POWER)
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**NEW PULL BOX LOCATION**

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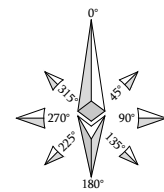


**CONDUIT CURVE DATA**

	ANGLE	RADIUS	LENGTH
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**CITY PERMIT INFORMATION**

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**REVISIONS:**

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PROJECT INFORMATION:

LDRAH - 004A  
6174 BUCKINGHAM PARKWAY  
CULVER CITY, CA 90230

SHEET TITLE:  
SITE PLAN

SHEET NUMBER:  
**A-1**

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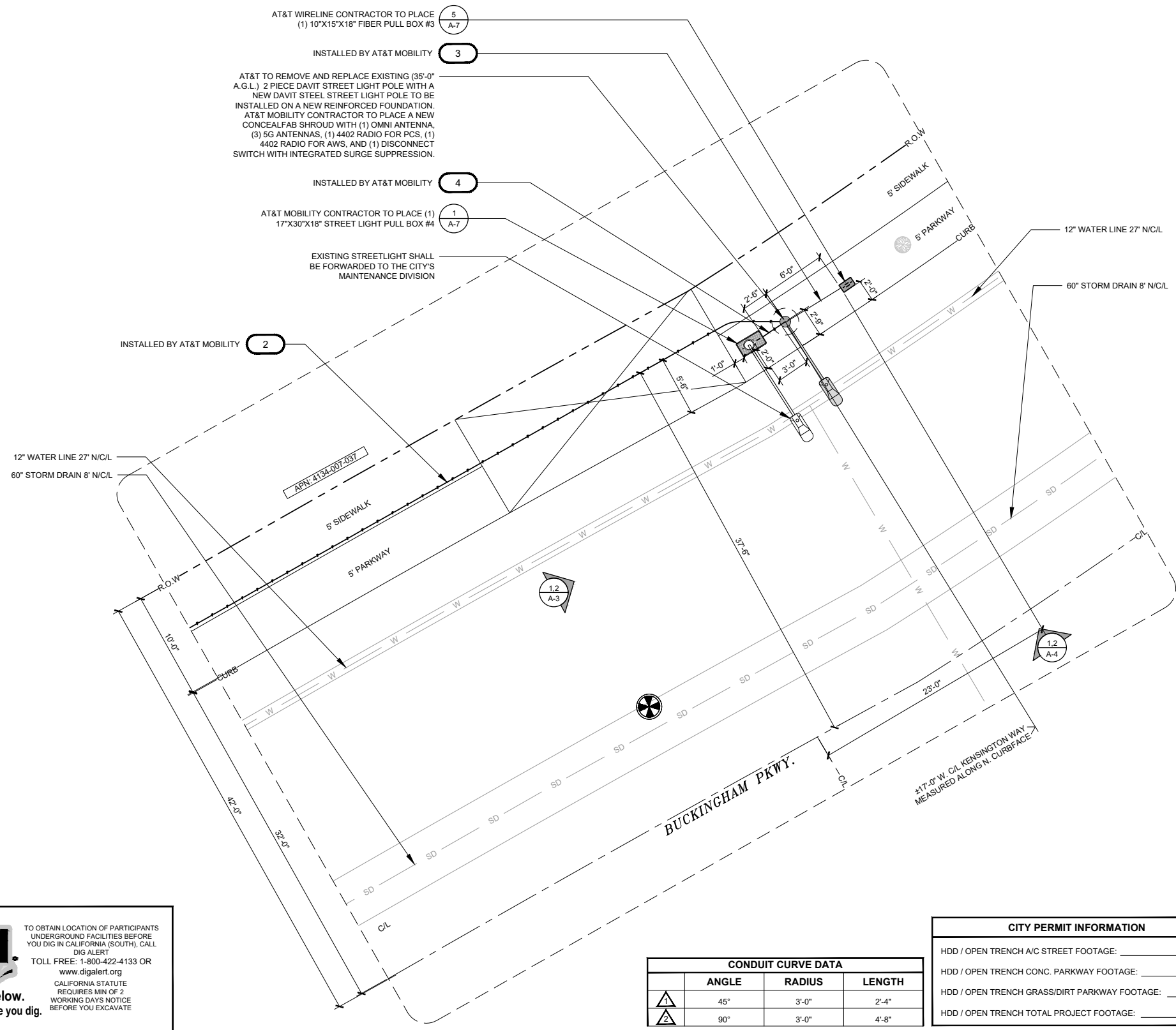
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**811**  
Know what's below.  
Call before you dig.

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN CALIFORNIA (SOUTH), CALL DIG ALERT  
TOLL FREE: 1-800-422-4133 OR www.digalert.org  
CALIFORNIA STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

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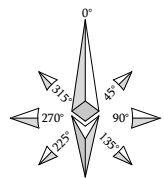


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ENLARGED SITE PLAN

SCALE 3/16"=1'-0" 1

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ENGINEER:

an SFC Communications, Inc. Company  
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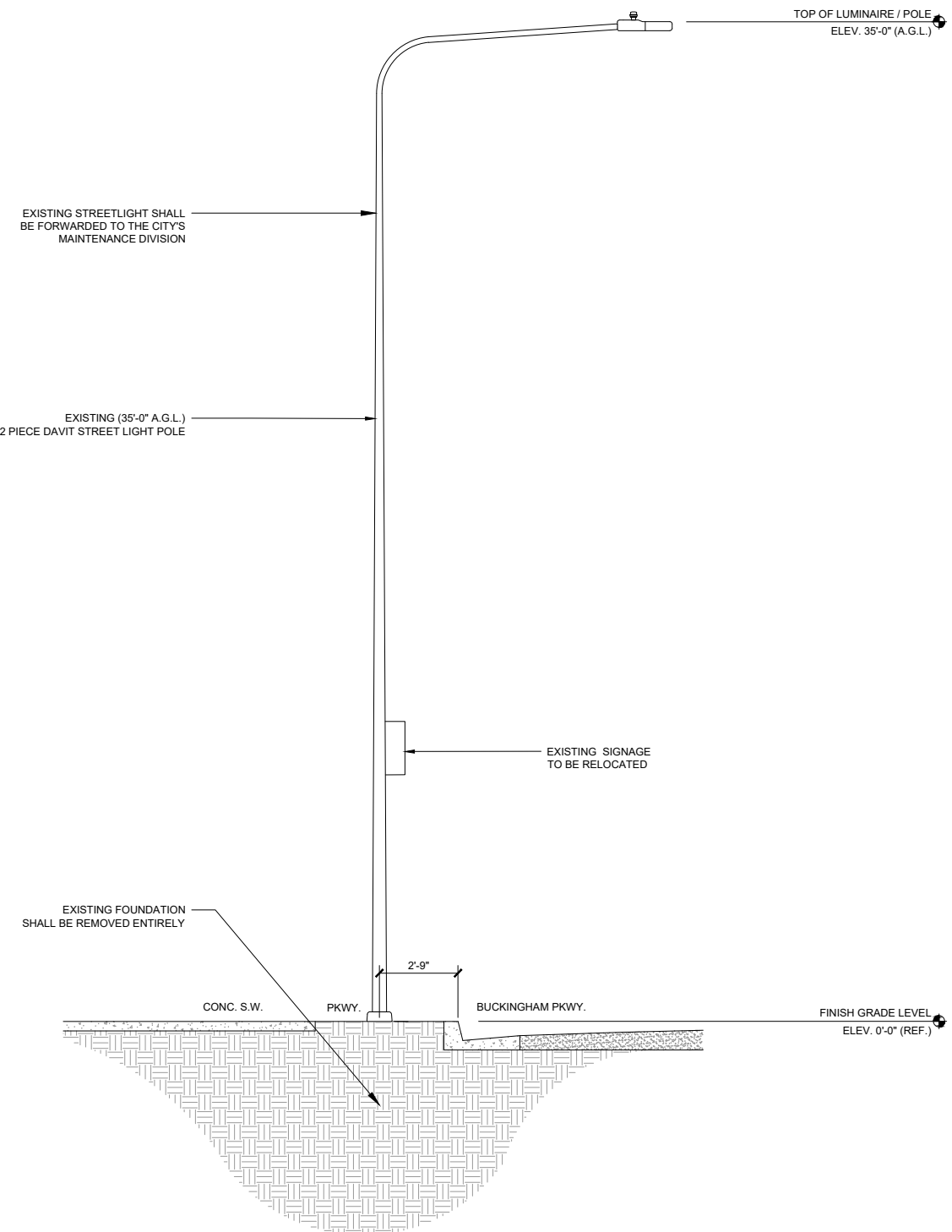
LDRAH - 004A  
6174 BUCKINGHAM PARKWAY  
CULVER CITY, CA 90230

SHEET TITLE:  
ENLARGED SITE PLAN

SHEET NUMBER:  
A-2



**NOTES:**  
 1. ALL NEWLY INSTALLED EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING POLE AND OR SURROUNDINGS UNLESS PROHIBITED PER MANUFACTURER REQUIREMENTS.



APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:




an SFC Communications, Inc. Company  
 65 POST, SUITE 1000  
 IRVINE, CA 92618  
 TEL: (949) 553-8566  
 www.eukongroup.com

CHECKED BY A&E: FE  
 CHECKED BY OSP: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
4	08/02/21	CITY COMMENTS	AS
3	06/07/21	FINAL POWER	MG
2	03/08/21	EQUIPMENT CHANGE PER ATT	MP
1	10/23/19	FOUNDATION UPDATE	WI
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	AS

LICENSER:



EXPIRATION DATE: 12-31-22  
 DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRAH - 004A  
 6174 BUCKINGHAM PARKWAY  
 CULVER CITY, CA 90230

SHEET TITLE:

NEW AND EXISTING  
 SOUTHWEST ELEVATIONS

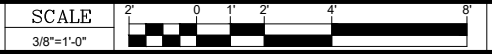
SHEET NUMBER:

**A-3**

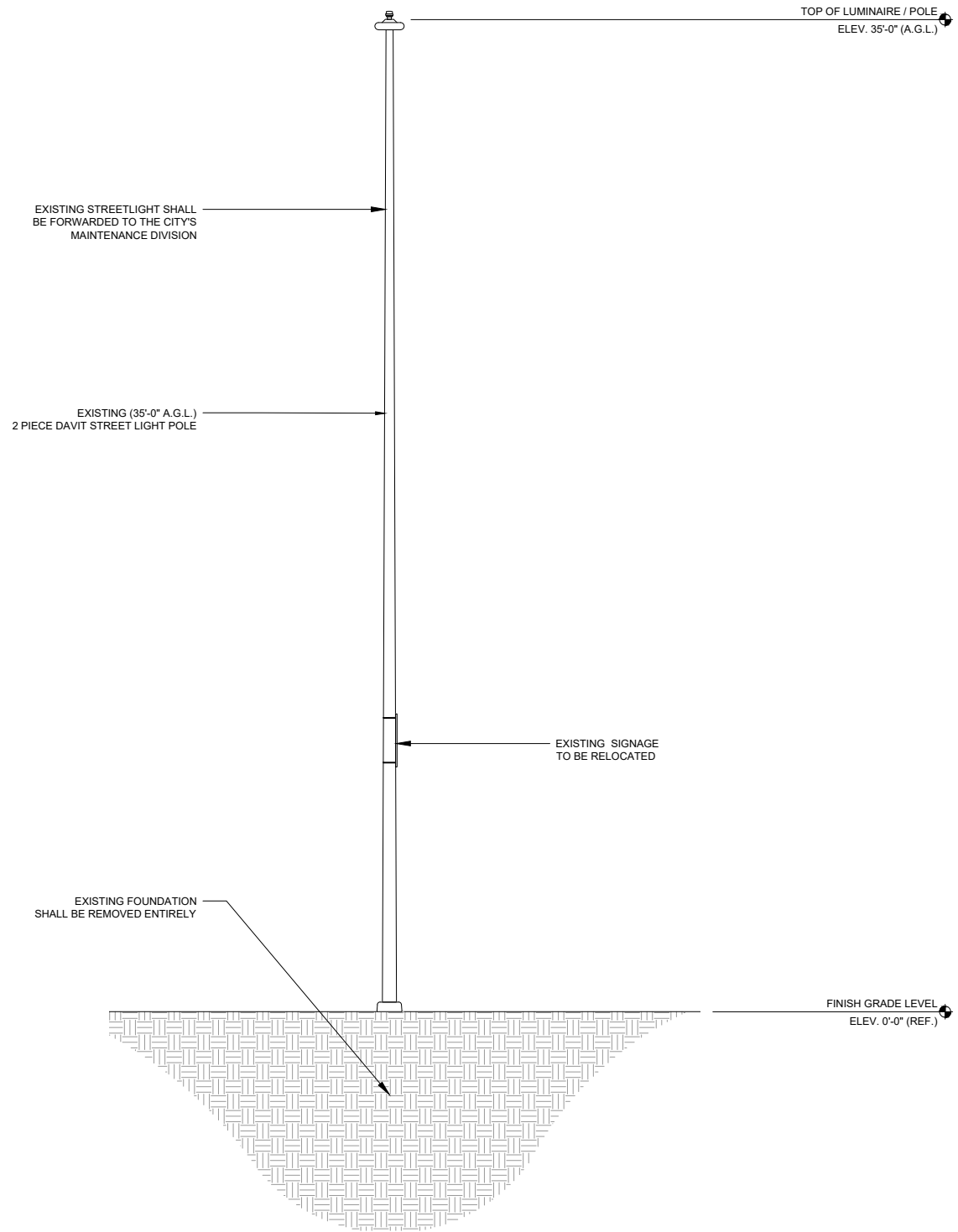
EXISTING SOUTHWEST ELEVATION



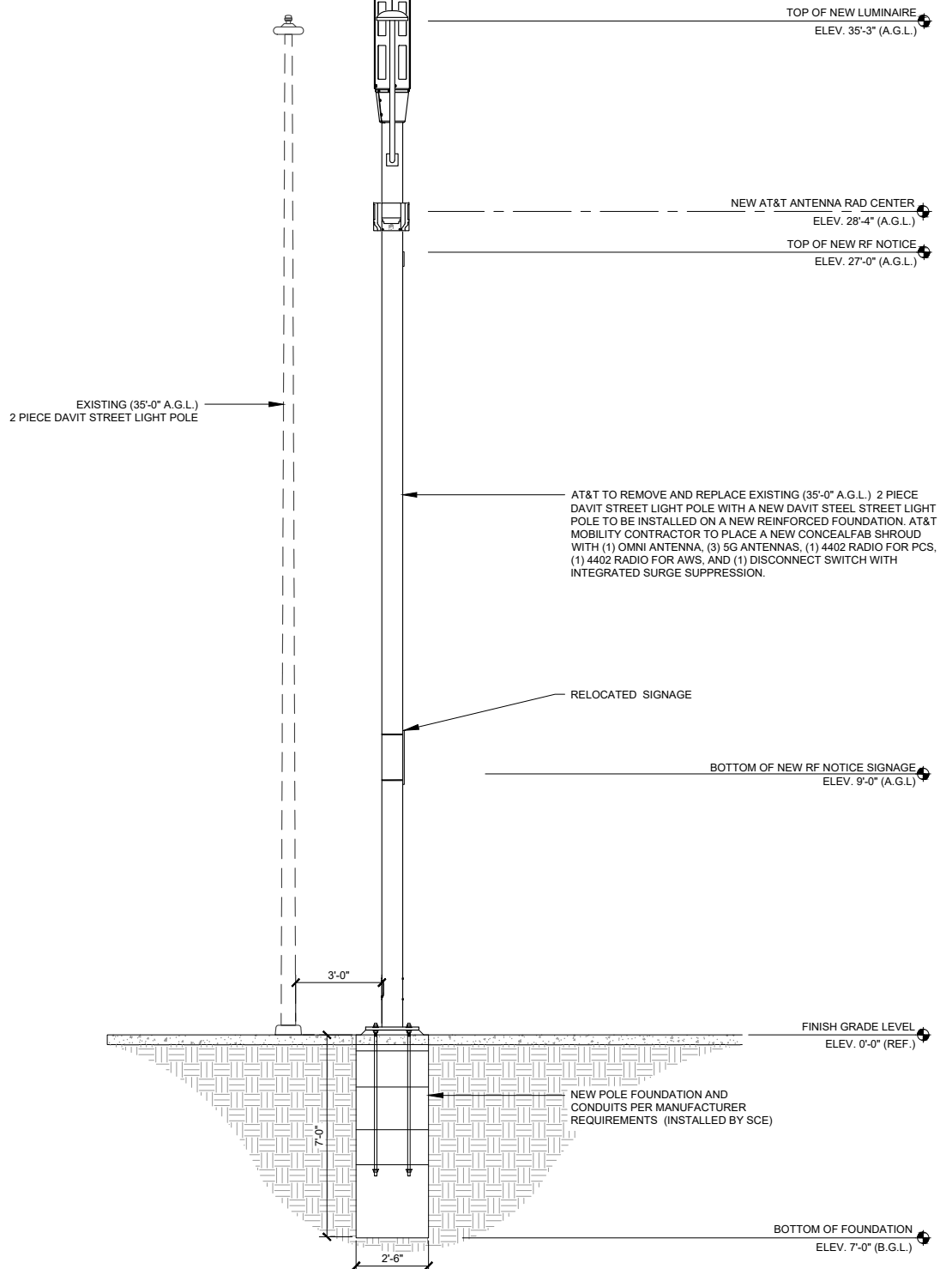
NEW SOUTHWEST ELEVATION



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EXISTING SOUTHEAST ELEVATION



NEW SOUTHEAST ELEVATION




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LICENSER:



EXPIRATION DATE: 12-31-22  
 DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRAH - 004A  
 6174 BUCKINGHAM PARKWAY  
 CULVER CITY, CA 90230

SHEET TITLE:

NEW AND EXISTING  
 SOUTHEAST ELEVATIONS

SHEET NUMBER:

A-4





APPLICANT:



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PROJECT INFORMATION:

LDRAH - 004A  
6174 BUCKINGHAM PARKWAY  
CULVER CITY, CA 90230

SHEET TITLE:

SITE IMAGE

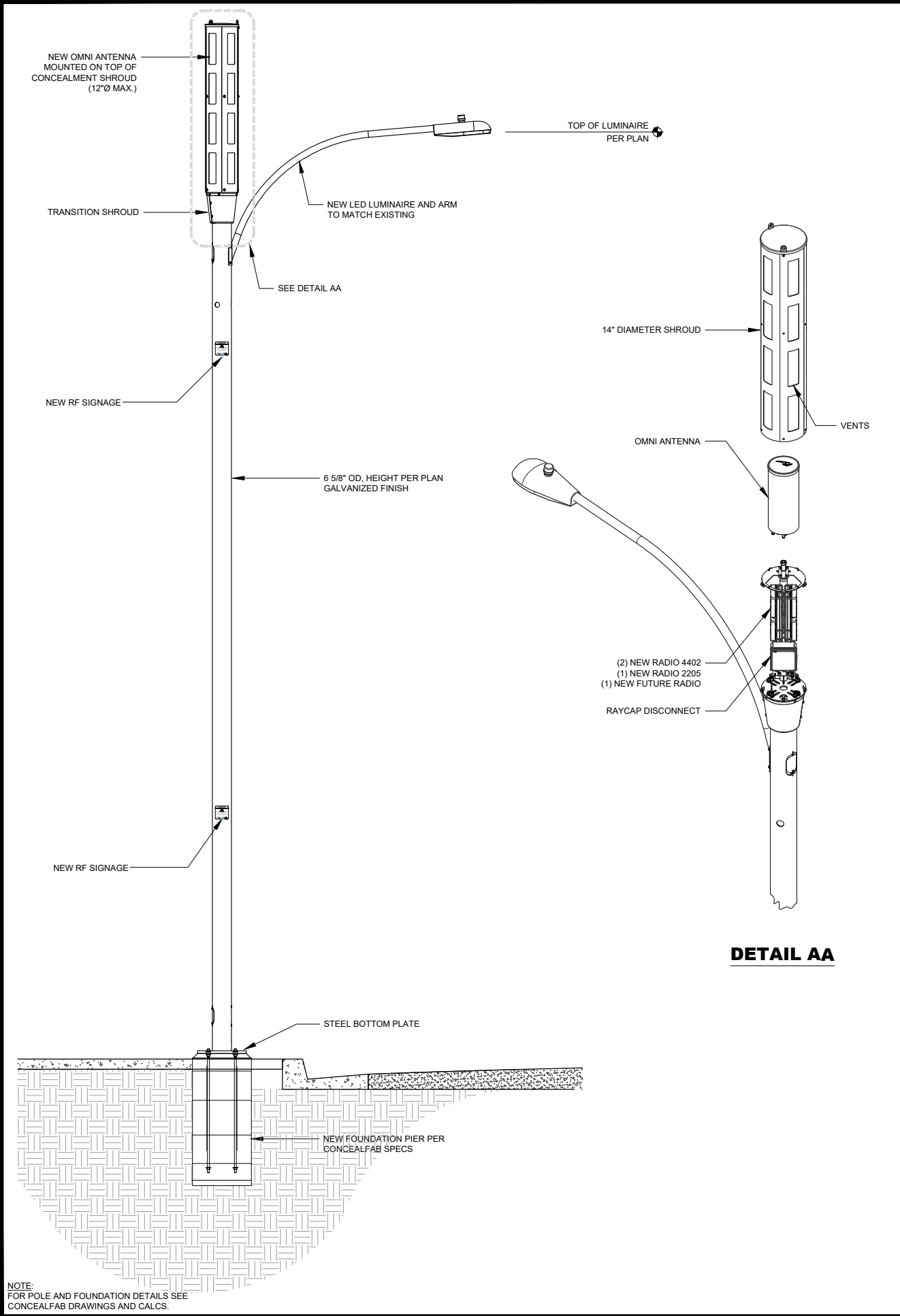
SHEET NUMBER:

**A-5**

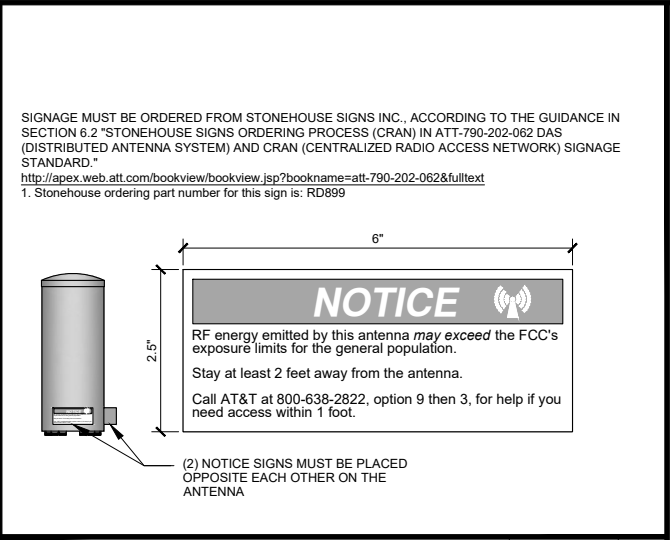
SITE LOCATION EAST VIEW

SCALE  
NONE 1

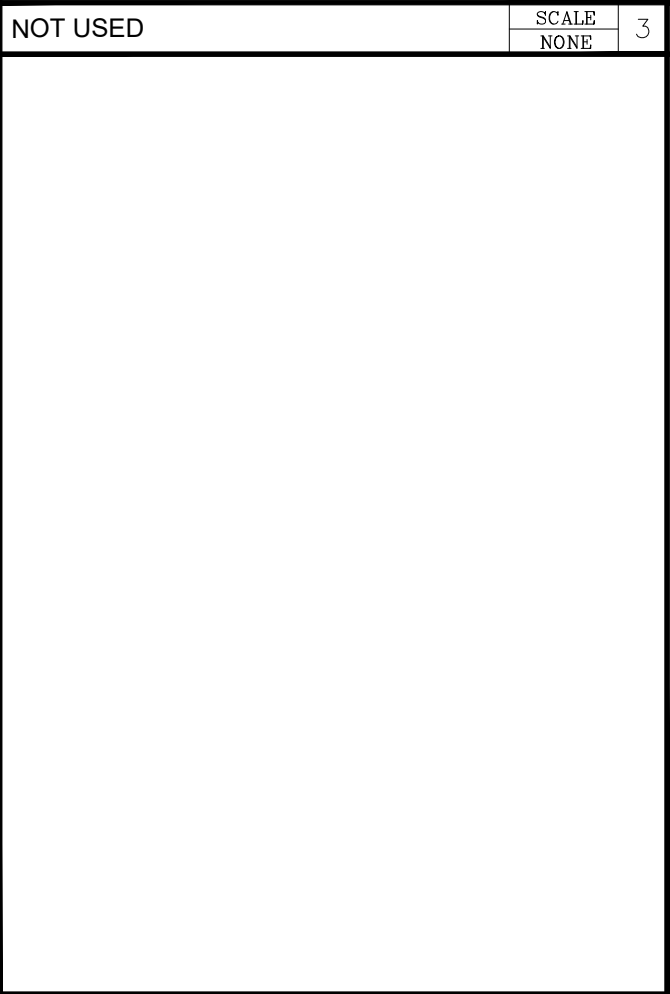




CONCEALFAB POLE SCALE NONE 1



ANTENNA DISCLAIMER LABEL SCALE NONE 2



### GAMMA NU - QOYZ9X360F14T(x) ANTENNA

**MECHANICAL**

DIMENSIONS (HEIGHTxDIAMETER): 23.6 x 9.4 INCHES (600 x 240 mm)

WEIGHT EXCL MOUNTING BRACKETS: 17.6lbs (8 kg)

NO. OF CONNECTORS: 14 X 4.3-10 (F)

CONNECTOR TYPE & FREQUENCY BAND [MHz]:  
 1850-1990/1695-2400/3550-3700/5150-5925

4 X 4.3-10 (F) (1850-1990) MHz  
 4 X 4.3-10 (F) (1695-2400) MHz  
 4 X 4.3-10 (F) (3550-3700) MHz  
 2 X 4.3-10 (F) (5150-5950) MHz

SURVIVAL WIND SPEED: 150 mph

FRONT: 23.6" height, 9.4" diameter

BOTTOM: 9.4" diameter

GAMMA NU-QOYZ9X360F14T(x) ANTENNA SCALE NONE 4

### ERICSSON - RADIO 4402

**MECHANICAL SPECIFICATIONS**

DIMENSIONS (WxDxH): 7.9"x4.2"x8.4", INCLUDING MOUNTING BRACKET AND ESTHETIC FRONT COVER

VOLUME AND WEIGHT: 4 LITRES AND < 4.7 kg (10.3 lbs)

MOUNTING: WALL AND POLE MOUNT

**INTERFACE SPECIFICATIONS:**

ANTENNA PORTS: NEX10(F)

CPRI: 2 x 2.5/5/10 Gbps (EXCHANGEABLE SFP MODULES)

OPTICAL INDICATORS: 6

EXTERNAL ALARM: 2

FIELD GROUND: 1

ISO: 7.9" x 4.2" x 8.4"

TOP: 7.9" x 4.2"

FRONT: 7.9" x 8.4"

BACK: 7.9" x 8.4"

SIDE: 4.2" x 8.4"

**ELECTRICAL SPECIFICATIONS:**

POWER SUPPLY: -48 VDC OR 100-250 VAC

POWER OUTPUT: 146 WATTS MAX

MAX HEAT DISSIPATION: 120 WATTS

MINIMUM AC FUSE RATING: 6 AMP

RADIO 4402 SCALE NONE 6

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LICENSER:

EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LdraH - 004A

6174 BUCKINGHAM PARKWAY  
CULVER CITY, CA 90230

SHEET TITLE:

EQUIPMENT DETAILS

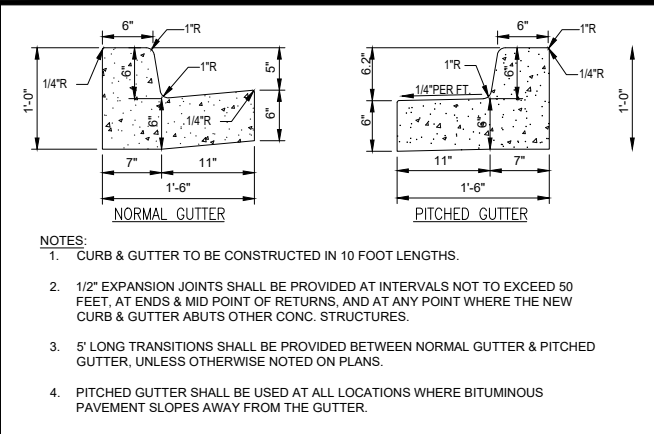
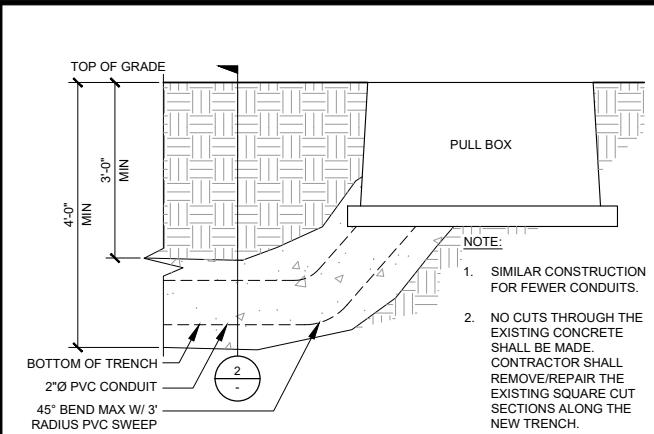
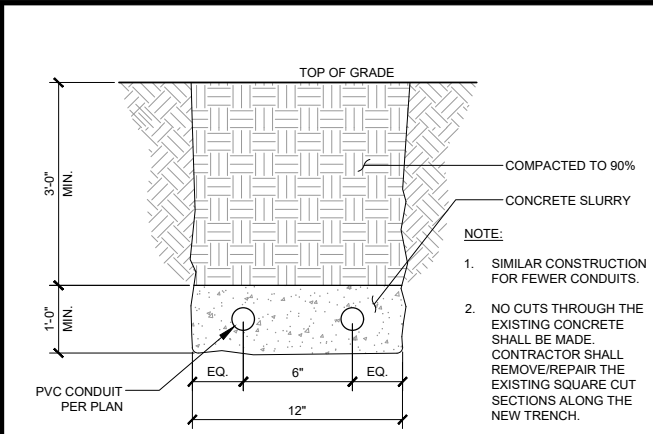
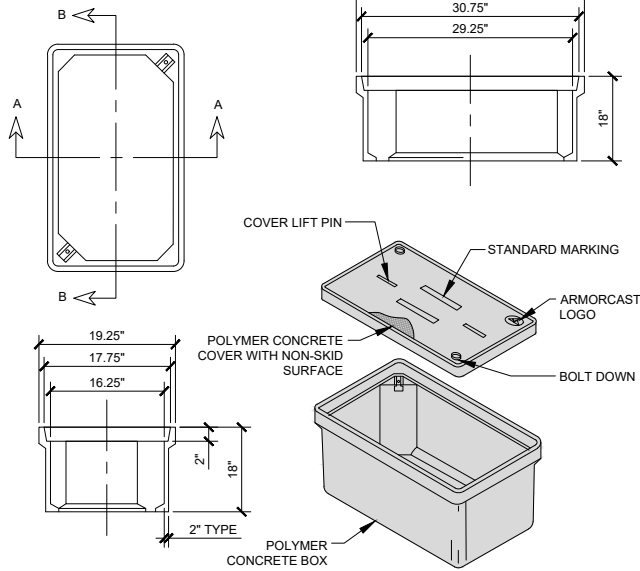
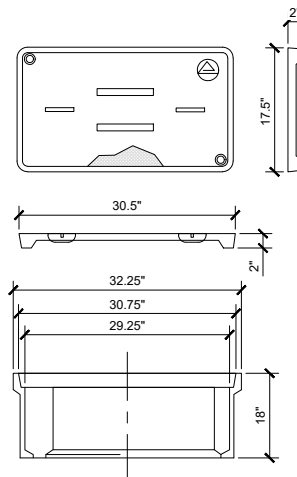
SHEET NUMBER:

**A-6**

**ARMORCAST - POLYMER CONCRETE 17" x 30" x 18" PULL BOX ASSEMBLY**

**MECHANICAL SPECIFICATIONS**

PART NUMBER: A6001640PCX18  
 LID NUMBER: A6001643  
 DIMENSIONS (WxLxD): 17"x30"x18"  
 APPROX. WEIGHT: (BOX & COVER) 140 LB  
 LOAD RATING: 10K  
 ANSI TIER: 8



**PULL BOX SPECIFICATIONS**

SCALE: NONE 1

**NOT USED**

SCALE: NONE 6

**NOT USED**

SCALE: NONE 7

**NOT USED**

SCALE: NONE 8

**AIR 1281-B260-39GHz ANTENNA**

ITEM SPECIFICATIONS  
 AIR TECHNOLOGY 5G NR  
 OPERATING FREQUENCY 37GHz-40GHz  
 ANTENNA CONFIGURATION 2T2R/PANEL  
 ANTENNA ELEMENT 128AE/PATH,256AE/PANEL,1024AE/OMNI  
 IBW/OBW 1400MHz/400MHz  
 CHANNEL BW/CAPACITY 1000MHz 8CC(HW READY FOR 50/100MHz)  
 EIRP 53/56dBm/PANEL  
 FUNCTION SPLIT OPTION 7-2x(HW READY FOR COMPRESION)  
 FRONT-HAUL eCPRI 25Gbps x 2 PORTS  
 INPUT VOLTAGE 100-250VAC  
 OPERATING TEMPERATURE -40-+55°C(WITH SOLAR LOAD)  
 COOLING METHOD NATURAL CONVECTION COOLING  
 INSTALLATION POLE, WALL  
 WEIGHT 7.5kg ±5%  
 POWER CONSUMPTION (MAX) TOTAL 525W(3X175W)

**NOT USED**

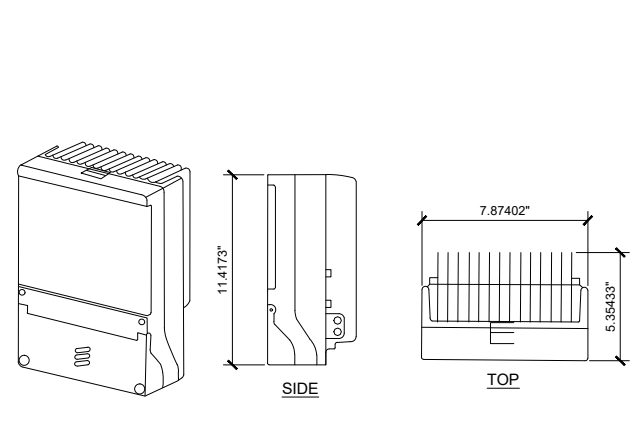
SCALE: NONE 9

**NOT USED**

SCALE: NONE 10

**NOT USED**

SCALE: NONE 11



**AIR 1281-B260-39GHz ANTENNA**

SCALE: NONE 5

**NOT USED**

SCALE: NONE 12

**NOT USED**

SCALE: NONE 13

**NOT USED**

SCALE: NONE 14

APPLICANT:

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LICENSER:

EXPIRATION DATE: 12-31-22  
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PROJECT INFORMATION:

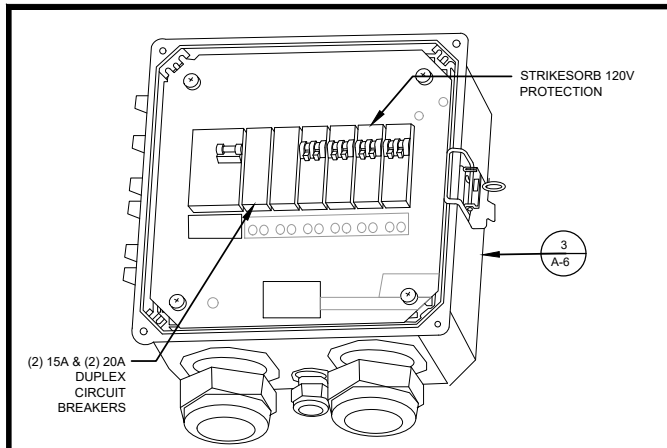
LDRAH - 004A  
 6174 BUCKINGHAM PARKWAY  
 CULVER CITY, CA 90230

SHEET TITLE:

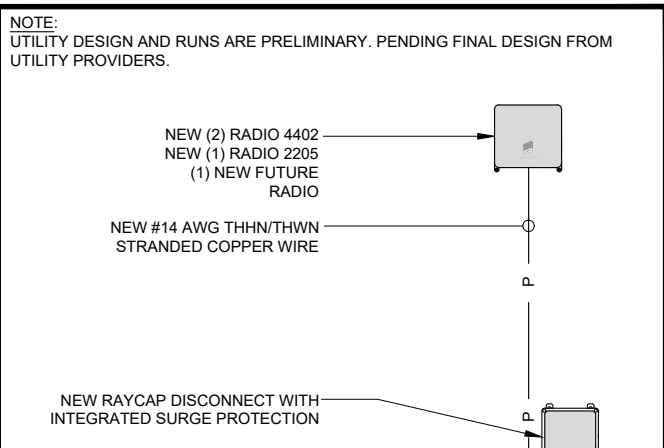
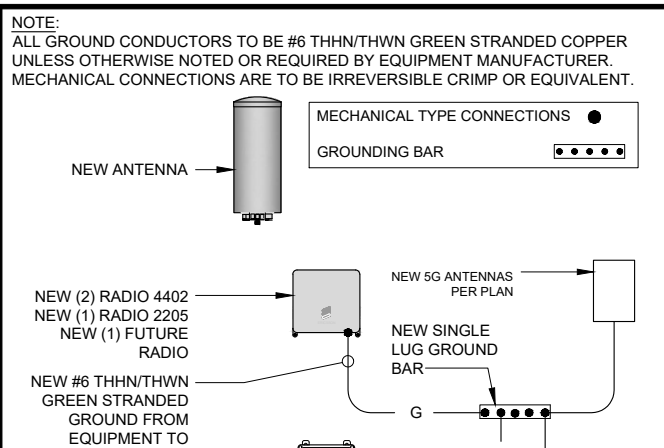
CONSTRUCTION DETAILS

SHEET NUMBER:

**A-7**



- GROUND BONDS:** ALL BONDS ARE TO BE MADE WITH #6 AWG STRANDED COPPER IN GREEN INSULATION. (ATT-TP-76416 7, 6.7)
- EXTERIOR UNIT BONDS:** ALL METALLIC OBJECTS SHALL BE BONDED TO THE GROUND ROD. (ATT-TP-76416 7, 12.6)
- CONTRACTOR TO SURROUND COMPLETED CONNECTIONS WITH WEATHERPROOFING TAPE OR EQUAL TO.



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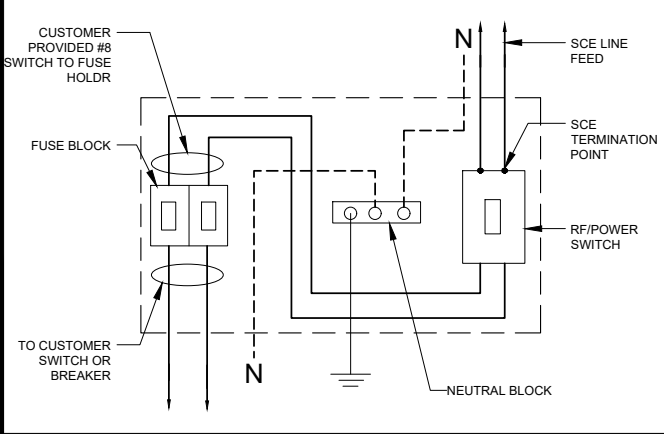
CHECKED BY A&E: FE  
CHECKED BY OSP: AJ

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SCALE NONE 1

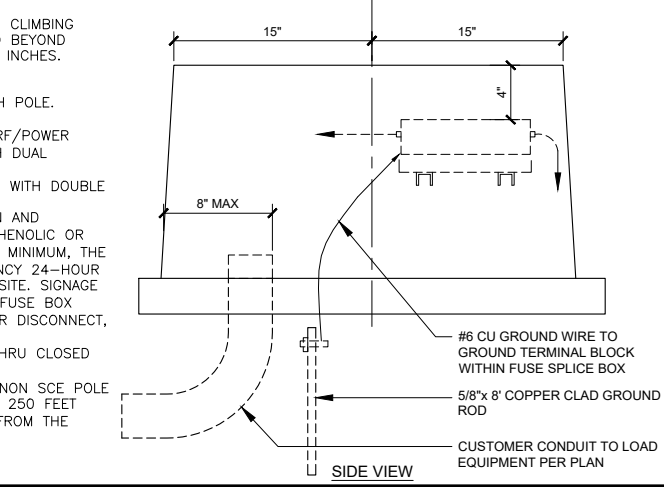
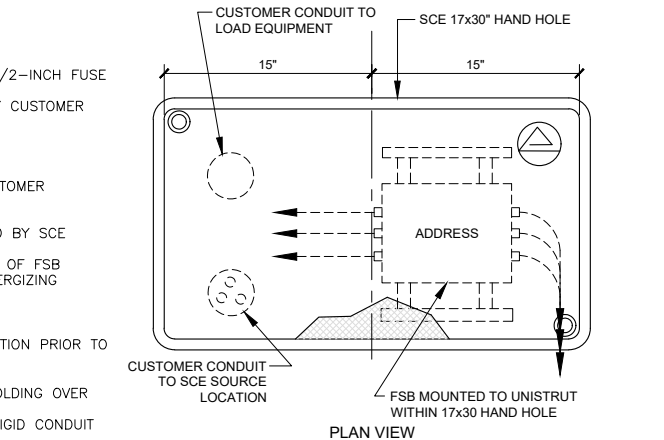
SCALE NONE 2



NOT USED SCALE NONE 3

SCALE NONE 4

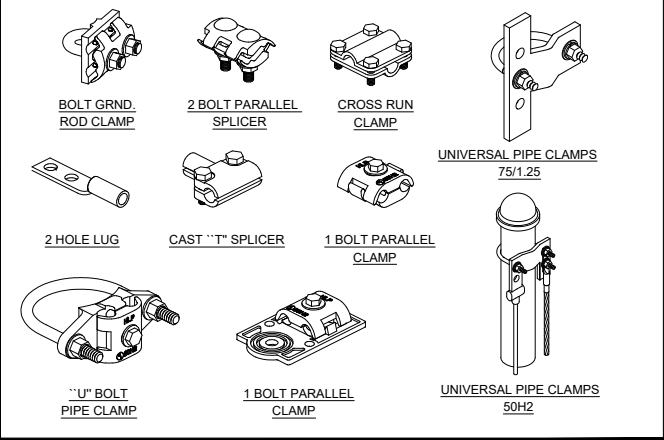
- CABINET TO INCLUDE:
- INSIDE PANEL FOR MOUNTING OF:
    - ISOLATION SWITCH
    - FUSEHOLDER--BUSS #BM6032B OR EQUIVALENT TO ACCEPT 13/32-INCH X 1-1/2-INCH FUSE
    - SINGLE-POLE TERMINAL BLOCK FOR NEUTRAL CONDUCTOR TERMINATION
    - ISOLATION SWITCH, FUSE HOLDER, AND NEUTRAL TERMINAL SHALL BE LABELED BY CUSTOMER
  - CABINET REQUIREMENTS:
    - NEMA 3R--HINGE COVER, PADLOCKABLE
    - FUSE SPLICE BOX (FSB) SIZE 12" W X 12" H X 6" D
    - FSB TO BE MOUNTED ON POLE BY WAY OF MOUNTING PLATES SUPPLIED BY CUSTOMER
  - FUSE REQUIREMENTS:
    - CUSTOMER INSTALLS FUSES AND REPLACEMENT, IF NEEDED, ONCE FSB UNLOCKED BY SCE
    - FUSE RATING TO BE APPROVED BY SCE
    - ONE SPARE SET OF FUSES, SUPPLIED BY CUSTOMER, ARE TO BE PLACED INSIDE OF FSB
    - FUSE RATING TO BE LABELED BY CUSTOMER INSIDE OF FSB DOOR PRIOR TO ENERGIZING SERVICE.
  - NOTE(S):
    - CUSTOMER TO NOTIFY SCE FOR APPROVAL OF FUSE SPLICE BOX MOUNTING LOCATION PRIOR TO INSTALLATION.
    - SCE PERSONNEL TO NOTIFY IMS GROUP IF FUSES ARE REPLACED.
    - ARMORED GROUND WIRE OR MINIMUM OF 1/2-INCH RIGID CONDUIT OR WOOD MOLDING OVER GROUND WIRE.
    - GROUND WIRE FROM POLE TO ELECTRODE SHALL BE ENCLOSED IN GALVANIZED RIGID CONDUIT OR EQUIVALENT MECHANICAL PROTECTION.
    - SUBJECT TO LOCAL CODES/ORDINANCES WHERE APPLICABLE.
    - FOR JOINTLY-OWNED POLES, CUSTOMER TO PROVIDE POLE STEPS FOR IDENTIFIED CLIMBING SPACE UP TO CELLULAR ARM LEVEL. SCE TO PROVIDE POLE STEPS AS REQUIRED BEYOND CELLULAR ARM LEVEL. LOWEST LEVEL STEP SHALL NOT BE LESS THAN 7 FEET 6 INCHES. SPACING SHALL NOT EXCEED 36 INCHES.
    - CLIMBING SPACE ON POLE SHALL MEET G.O. 95 REQUIREMENTS.
    - CUSTOMER EQUIPMENT FOR WTR TARIFF IS NOT TO BE INSTALLED ON SCE SWITCH POLE.
    - THIS STANDARD APPLICABLE TO WTR TARIFF ONLY.
    - SCE CREW TO LOCK FSB WITH #203 LOCK AFTER SERVICE IS ENERGIZED THRU RF/POWER SWITCH TO OPEN CUSTOMER SCE EMERGENCY RF/POWER SHUT-OFF SWITCH WITH DUAL LOCKING DEVICE TO ALLOW SCE ACCESS.
    - OPTIONAL LOCATION OF CUSTOMER'S EMERGENCY RF/POWER DISCONNECT SWITCH, WITH DOUBLE LOCKING DEVICE.
    - CELL CARRIERS SHALL INSTALL A SIGN OR DECAL MADE OF WEATHER, CORROSION AND ULTRAVIOLET (UV) RESISTANT MATERIALS (E.G., MACHINE-ENGRAVED, LAMINATED-PHENOLIC OR REFLECTIVE SCOTCHLITE MATERIALS) PLACED OUTSIDE THE FUSE BOX DOOR. AT A MINIMUM, THE SIGN OR DECAL SHALL INDICATE THE ANTENNA OWNER/OPERATOR NAME, EMERGENCY 24-HOUR CONTACT NUMBER, AND UNIQUE IDENTIFIER OR NOC NUMBER FOR THE ANTENNA SITE. SIGNAGE SHALL BE PLACED AT 8"-0" MINIMUM TO 11"-0" MAXIMUM ON THE OUTSIDE OF FUSE BOX DOOR. LABELING SHALL BE PLACED INSIDE THE FUSE BOX IDENTIFYING; RF/POWER DISCONNECT, AND FUSE BLOCK WITH AMPACITY OF FUSE IN USE.
    - INSTALL #8, 3 1/c TW CU FOR OVERHEAD. REFER TO DUG AP 100. ENERGIZE THRU CLOSED RF/POWER SWITCH TO OPEN CUSTOMER-FUSED SWITCH..
    - ANTENNA WITH EMERGENCY RF/POWER DISCONNECT SWITCH MAY BE PLACED ON NON SCE POLE WHERE THERE IS VEHICULAR ACCESS TO THE POLE, THE POLE IS A MAXIMUM OF 250 FEET RADIALLY, AND THE POLE/ANTENNA IS CLEARLY VISIBLE WITH NO OBSTRUCTIONS FROM THE WIRELESS TECHNOLOGY RATE (WTR) BOX LOCATION



WTR FUSE SPLICE BOX (FSB) IN HAND HOLE SCALE NONE 7

NOT USED SCALE NONE 5

SCALE NONE 6



NOT USED SCALE NONE 8

SCALE NONE 9

NOT USED

SCALE NONE 10

LICENSER:

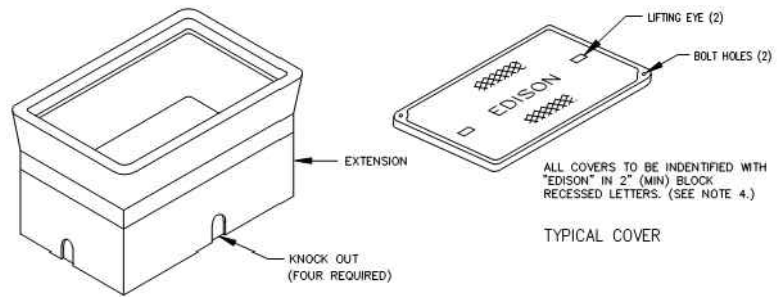
PROJECT INFORMATION:  
LDRAH - 004A  
6174 BUCKINGHAM PARKWAY  
CULVER CITY, CA 90230

SHEET TITLE:  
ELECTRICAL AND  
GROUNDING DETAILS

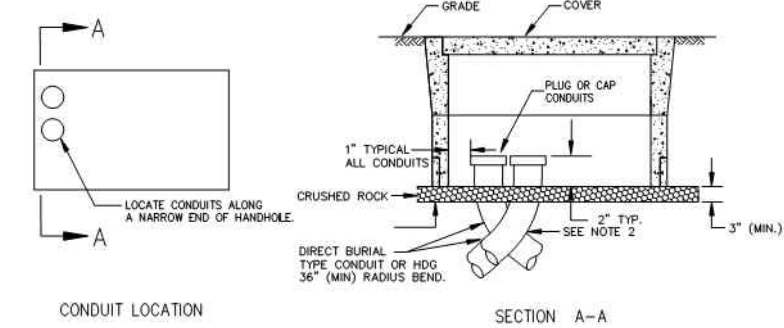
SHEET NUMBER:  
E-1



TYPICAL HANDHOLE INSTALLATION  
SEE UGS HP 205



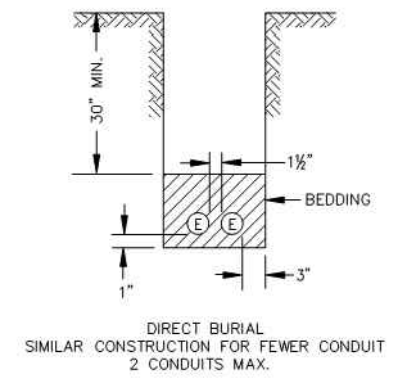
TYPICAL ASSEMBLY  
(WITHOUT COVER)



- NOTES:
- SEE UGS HP 200 FOR DIMENSIONS OF VARIOUS SIZE HANDHOLES AVAILABLE.
  - RADIUS ANGLE MAY BE REDUCED TO LESS THAN 90° PROVIDING THE PROJECTED CENTER LINE OF THE CONDUIT CLEARS HANDHOLE OPENING.
  - TWO HOLD DOWN DEVICES TO BE SUPPLIED WITH EACH HANDHOLE.
  - COVER SHALL BE IDENTIFIED WITH "EDISON" IN MINIMUM 2-INCH LETTERS OR LABELS PERMANENTLY SECURED TO THE LID.
  - FOR MAINTENANCE ON 10-1/2" X 17" CONCRETE HANDHOLES USE SWINGBOLT WITH SAP 10204721.

D75 REV. 03/18/19

TYPICAL CONDUIT BANK SECTION  
SEE UGS CD 120



DIRECT BURIAL  
SIMILAR CONSTRUCTION FOR FEWER CONDUIT  
2 CONDUITS MAX.

D81: Rev. 09/23/09

CONNECTING TO EXISTING SCE STRUCTURES

- Per SCE requirements, customers are not allowed to enter, intercept or tie-in to existing SCE facilities; e.g. structures, equipment, multi-conduit runs/banks, or conductors. These facilities may be energized and the work will only be performed by SCE. Contact the appropriate SCE inspector to schedule an appointment. Customers may connect to an existing conduit stub without a SCE inspector present.
- Multi-conduit runs/banks are runs of conduit in close proximity to each other and other SCE facilities. A conduit stub is a single empty conduit stub that is not in close proximity to other SCE owned facilities. Refer to the work order map for details.
- Per CPUC/SCE's Rule 15 B.1.A and Rule 16 D.1.A., the customer will provide all necessary excavations (with the exception of excavation under pads and primary splice boxes), material (including conduit and structures) and encasement, to be utilized in the intercept/tie-in process.
- The customer must adhere to all applicable Cal-OSHA, local, city, state and federal regulations, (including, but not limited to, all necessary shoring and traffic control in place to perform the intercept/tie-in work by SCE's underground civil contractor(s)).
- Intercept/tie-in work must be coordinated with SCE's civil contractors through the Division Inspector/P-Spec to limit exposure of excavation(s). Customer is responsible for securing excavation(s).

D08: 11/13/18

INTERCEPT DE-ENERGIZED CONDUIT W/HANDHOLE  
EDISON CREW:

- Will de-energize and remove the existing cable from the duct to be intercepted
- Will install new or larger cable, perform make-up, and energize once intercept work has been completed

CUSTOMER/GENERAL CONTRACTOR:

- Will provide all necessary materials including conduits, couplings, bends, and structures
- Will install pull ropes, mandrel all ducts, and will install new handhole

JOINT MEET REQUIRED BETWEEN SCE CREW AND:  
Customer/Contractor:

\_\_\_\_\_ Ph.#: \_\_\_\_\_  
 CCM/Inspector: \_\_\_\_\_ Ph.#: \_\_\_\_\_

CONDUIT RADIUS REQUIREMENTS:

- A: The minimum radius for bends are:  
 36" for conduits 3" in diameter or smaller  
 48" for conduits 4" and 5" in diameter  
 60" for 6" diameter conduit
- B: The minimum radius for sweeps are:  
 36" for conduits 3" in diameter or smaller  
 12'-6" for conduits 4" in diameter and larger, unless otherwise noted.

WHERE CONDUITS ARE PICKED UP OR INTERCEPTED, CONDUIT SHALL BE MANDRELLED AND PULL ROPE INSTALLED FROM TERMINAL TO TERMINAL.

NOTE:  
 ALL ELECTRICAL DUCTS AND STRUCTURES WILL CONFORM TO GENERAL ORDER #128 (RULES FOR CONSTRUCTION OF UNDERGROUND ELECTRICAL SUPPLY AND COMMUNICATION PRESCRIBED BY THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA, JANUARY 2006).

CUSTOMER-OWNED CONDUIT MATERIAL\* AND CONCRETE ENCASUREMENT ARE TO BE INSTALLED IN ACCORDANCE WITH EDISON ELECTRICAL SERVICE REQUIREMENTS.  
 \*SUBJECT TO APPROVAL BY LOCAL INSPECTION AUTHORITIES

D14: Rev. 01/85

WARNING  
 THE EXCAVATOR MUST TAKE ALL STEPS NECESSARY TO AVOID CONTACT WITH UNDERGROUND FACILITIES WHICH MAY RESULT IN INJURY TO PERSONS OR DAMAGE TO FACILITIES IN THE AREA. THE INDICATED LOCATIONS OF EDISON UNDERGROUND FACILITIES, AS PROVIDED, ARE BELIEVED TO BE ACCURATE. HOWEVER, THE FINAL DETERMINATION OF EXACT LOCATIONS AND THE COST OF REPAIR TO DAMAGED FACILITIES IS THE RESPONSIBILITY OF THE EXCAVATOR.

INTERCEPT ENERGIZED CONDUIT  
 (Split "Y" Fitting and/or Intercept Energized Conduit)  
 The customer is responsible to trench up to and completely around the existing energized conduit at the location it is to be intercepted. The customer is to provide the Split "Y" fitting and any slip couplings or conduit needed for the intercept.

Applicants expressly represent and warrant that all work performed and all material used in meeting Applicants' obligations herein are free from defects in workmanship and are in conformity with Southern California Edison Company's requirements. This warranty shall commence upon receipt by Applicants of the Company's final acceptance and shall expire one year from that date. Applicants agree to promptly correct to the Company's satisfaction and that of any governmental agency having jurisdiction and at Applicants' expense any breach of this warranty which may become apparent through inspection or operation of underground electric system by the Company during this warranty period.

FINAL DESIGN  
 APPROVED FOR CONSTRUCTION

DISTRICT 42 - SANTA MONICA	PROJ. MGR. Hunter, Yolanda D PHONE 909-477-6471	PLANNER Lawless, Christopher PHONE 626-308-6085	DESIGNER Garcia, Jennifer
PROJECT NO. 2176407	SERVICE REQUEST 3070983	MSR NO.	PRODUCT-1 1850363-LINE EXTENSION
CIRCUIT / VOLTAGE BOGART_16KV	GPS	PRODUCT-2	ASSOC DESGN 1398884
SUB / PG NO. MOVIE	CIRCUIT CODE	PRODUCT-3	ASSOC DESGN
INVENTORY MAP LT-7261-G1	J.P.A. NO.	PROPOSED CONSTRUCTION (LOCATION) AT&T MOBILITY SITE#268957 6174W BUCKINGHAM PARKWAY CULVER CITY CA 90230	
F	5/19/21	M. RANDOLPH	C. LAWLESS
J.GARCIA			
TYPE	DATE	APPROVED BY	CHECKED BY
Southern California Edison Company			
SHEET	1	of	2
DESIGN\DRWG NO.	1398884_0.01		

APPLICANT:

1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:

an SFC Communications, Inc. Company  
 65 POST, SUITE 1000  
 IRVINE, CA 92618  
 TEL: (949) 553-8566  
 www.eukongroup.com

CHECKED BY A&E: FE  
 CHECKED BY OSP: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
4	08/02/21	CITY COMMENTS	AS
3	06/07/21	FINAL POWER	MG
2	03/08/21	EQUIPMENT CHANGE PER ATT	MP
1	10/23/19	FOUNDATION UPDATE	WI
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	AS

LICENSER:

PROJECT INFORMATION:

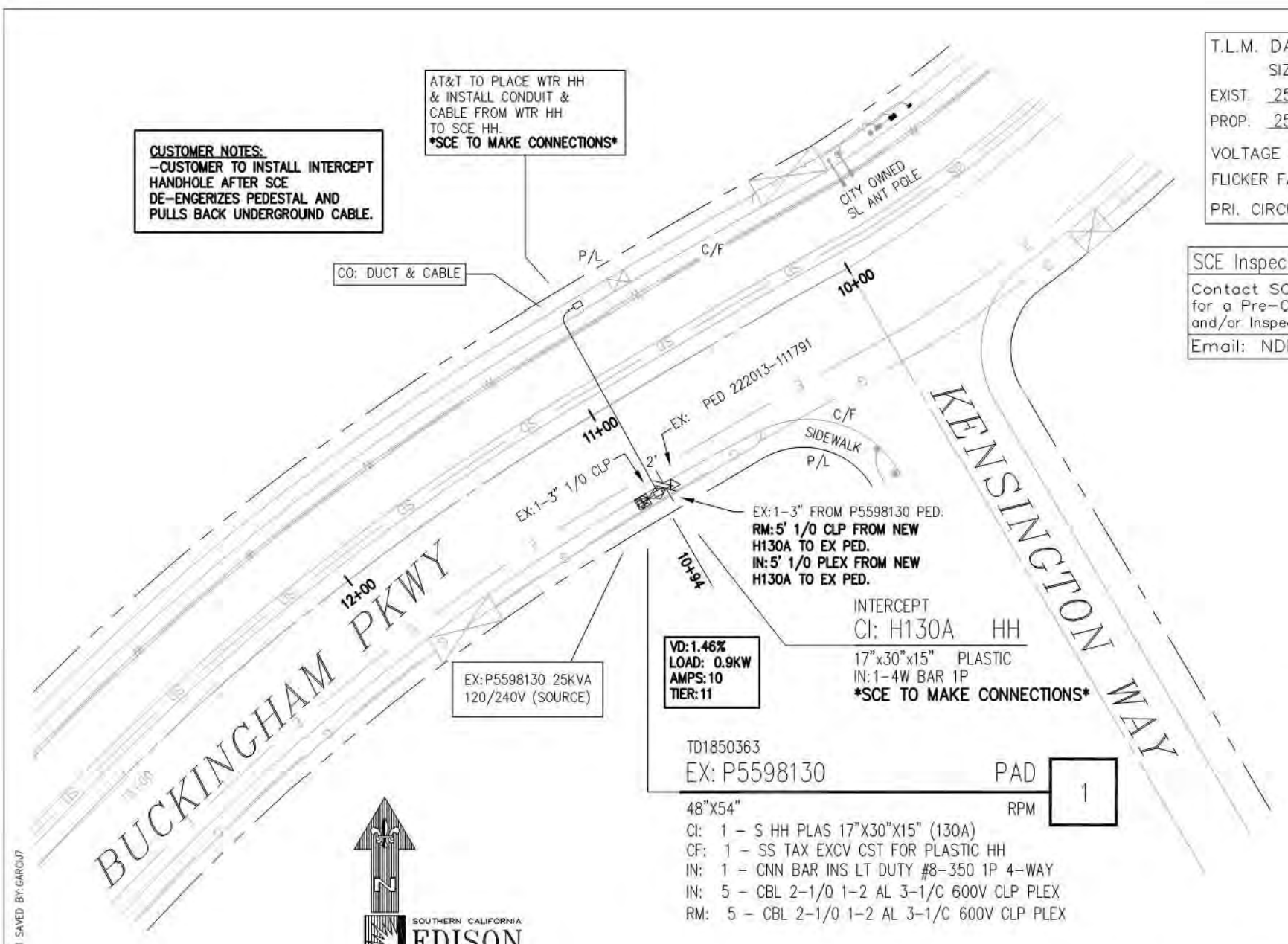
LdraH - 004A  
 6174 BUCKINGHAM PARKWAY  
 CULVER CITY, CA 90230

SHEET TITLE:  
 SCE FINAL POWER DESIGN

SHEET NUMBER:  
 UD-1

FILE NAME: 1398884\_0.01.DWG SAVE DATE: 5/19/2021 10:20 AM SAVED BY: GARCIA





**CUSTOMER NOTES:**  
 -CUSTOMER TO INSTALL INTERCEPT HANDHOLE AFTER SCE DE-ENERGIZES PEDESTAL AND PULLS BACK UNDERGROUND CABLE.

AT&T TO PLACE WTR HH & INSTALL CONDUIT & CABLE FROM WTR HH TO SCE HH.  
**\*SCE TO MAKE CONNECTIONS\***

T.L.M. DATA:

SIZE	KVA	CUST	% LOAD
EXIST. 25	1.1	1	4.4 %
PROP. 25	2.2	2	8.6 %

VOLTAGE DROP: 1.46%  
 FLICKER FACTOR: N/A  
 PRI. CIRCUIT: BOGART\_16KV

PROJECT REQUIREMENTS (Y/N)

EDISON EASEMENT REQUIRED	<input type="checkbox"/>
PWRD 88 REQUIRED	<input type="checkbox"/>
UG CIVIL ONLY WORK ORDER	<input type="checkbox"/>
PERMIT REQUIRED	<input checked="" type="checkbox"/>
PERMIT TYPE: ENCHROACHMENT	
OUTAGE REQUIRED	<input type="checkbox"/>
OUTAGE DATE: _____ TIME: _____	
TRAFFIC CONTROL REQUIRED	<input type="checkbox"/>
PED. TRAFFIC CONTROL REQ'D	<input type="checkbox"/>
CONVEYANCE LETTER REQ'D	<input type="checkbox"/>
ENVIRONMENTAL REQUIREMENTS DOCUMENT (ERD) REQUIRED	<input type="checkbox"/>
CSD 140 (TLM) REQ'D	<input type="checkbox"/>

SCE Inspection  
 Contact SCE 48 Hours in advance for a Pre-Construction meeting and/or Inspection.  
 Email: NDFPCS@SCE.COM



INTERCEPT HH

VD: 1.46%  
 LOAD: 0.9KW  
 AMPS: 10  
 TIER: 11

TD1850363  
 EX: P5598130  
 PAD 1  
 48"x54" RPM  
 CI: 1 - S HH PLAS 17"x30"x15" (130A)  
 CF: 1 - SS TAX EXCV CST FOR PLASTIC HH  
 IN: 1 - CNN BAR INS LT DUTY #8-350 1P 4-WAY  
 IN: 5 - CBL 2-1/0 1-2 AL 3-1/C 600V CLP PLEX  
 RM: 5 - CBL 2-1/0 1-2 AL 3-1/C 600V CLP PLEX



SCALE: 1 IN = 40 FT

**FINAL DESIGN**  
 APPROVED FOR CONSTRUCTION

**UNDERGROUND SERVICE ALERT**  
 Contact USA  
 Dial 811 or 800-422-4133  
 www.digalert.org/contact  
 For Underground Locating  
 Two Working Days Before You Dig

D16, Rev. 05/28/20

DISTRICT 42 - SANTA MONICA	PROJ. MGR. Hunter, Yolanda D PHONE 909-477-6471	PLANNER Lawless, Christopher PHONE 626-308-6085	DESIGNER Garcia, Jennifer
PROJECT NO. 2176407	SERVICE REQUEST 3070983	MSR NO.	PRODUCT-1 1850363-LINE EXTENSION
CIRCUIT / VOLTAGE BOGART_16KV	GPS	PRODUCT-2	ASSOC DESGN 1398884
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INVENTORY MAP LT-7261-G1	J.P.A. NO.	PROPOSED CONSTRUCTION (LOCATION) AT&T MOBILITY SITE#268957 6174W BUCKINGHAM PARKWAY CULVER CITY CA 90230	
F 5/19/21	M. RANDOLPH	C. LAWLESS	J.GARCIA
TYPE	DATE	APPROVED BY	CHECKED BY
		DRAWN BY	
		PAX #	
		SHEET 2 of 2	
		DESIGN\DRWG NO. 1398884_0.01	

APPLICANT:

1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:

an SFC Communications, Inc. Company  
 65 POST, SUITE 1000  
 IRVINE, CA 92618  
 TEL: (949) 553-8566  
 www.eukongroup.com

CHECKED BY A&E: FE  
 CHECKED BY OSP: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
4	08/02/21	CITY COMMENTS	AS
3	06/07/21	FINAL POWER	MG
2	03/08/21	EQUIPMENT CHANGE PER ATT	MP
1	10/23/19	FOUNDATION UPDATE	WI
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	AS

LICENSER:

PROJECT INFORMATION:

LDRAH - 004A  
 6174 BUCKINGHAM PARKWAY  
 CULVER CITY, CA 90230

SHEET TITLE:  
 SCE FINAL POWER DESIGN

SHEET NUMBER:  
**UD-2**

FILE NAME: 1398884\_0.01.DWG. SAVE DATE: 5/27/2021 3:13 PM. SAVED BY: GARGU7

Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

Road Type	Distance Between Signs*		
	A	B	C
Urban (low speed) – 25 mph or less	100 ft	100 ft	100 ft
Urban (high speed) – more than 25 mph to 40 mph	250 ft	250 ft	250 ft
Urban (high speed) – more than 40 mph	350 ft	350 ft	350 ft
Rural	500 ft	500 ft	500 ft
Expressway / Freeway	1,000 ft	1,000 ft	1,000 ft

\* Speed category to be determined by the highway agency.  
 \*\* The column headings A,B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

Table 6C-2. Stopping Sight Distance as a Function of Speed on Level Roads.

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet

\* Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.

Table 6C-3 (CA). Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)

Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (w)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)***
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50

\* – Posted speed limit, off peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.  
 \*\* – For other offsets use the following merging taper length formula for L:  
 For speeds of 40 mph or less,  $L=WS /60$   
 For speeds of 45 mph or more,  $L=WS$   
 Where L = taper length in feet  
 W = width of offset in feet  
 S = posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.  
 \*\*\* – Maximum downstream taper length is 100 feet. See Section 6C.08.

GENERAL NOTES:

1. WORK HOURS TO BE RESTRICTED TO 8:00AM TO 4:30PM UNLESS APPROVED OTHERWISE.
2. PEDESTRIAN CONTROLS WILL BE PROVIDED AS SHOWN.
3. PEDESTRIANS SHALL BE PROTECTED FROM ENTERING THE EXCAVATION BY PHYSICAL BARRIERS DESIGNED, INSTALLED, AND MAINTAINED TO THE SATISFACTION OF THE CITY ENGINEER.
4. TEMPORARY "NO PARKING/TOW AWAY" SIGNS STATING THE DATE AND TIME OF PROHIBITION WILL BE POSTED 72 HOURS PRIOR TO COMMENCING WORK. CALL POLICE DISPATCH TO VALIDATE POSTING.
5. ACCESS WILL BE MAINTAINED TO ALL DRIVEWAYS UNLESS OTHER ARRANGEMENTS ARE MADE.
6. TRENCHES MUST BE BACKFILLED OR PLATED DURING NON-WORKING HOURS UNLESS K-RAIL BARRIERS ARE PROVIDED. K-RAIL IS APPROVED ONLY WHEN SPECIFICALLY SHOWN ON THE APPROVED TRAFFIC CONTROL PLAN. PLATES SHALL HAVE CLEATS AND COLD MIX AT THE EDGES AS APPROVED BY THE INSPECTOR.
7. STRIPING WILL BE REPLACED BY THE CONTRACTOR WITHIN 24 HOURS, IF REMOVED OR DAMAGED.
8. WORK THAT DISTURBS NORMAL TRAFFIC SIGNAL TIMING OPERATIONS SHALL BE COORDINATED WITH THE CITY. CONTACT PUBLIC WORKS DEPARTMENT 72 HOURS PRIOR TO COMMENCING WORK.
9. TRAFFIC SIGNALS SHALL REMAIN FULLY ACTUATED AT ALL TIMES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER OR HIS/HER REPRESENTATIVE. IF TRAFFIC SIGNAL LOOP DETECTORS ARE RENDERED INOPERATIVE BY THE PROPOSED WORK, VIDEO DETECTION SHALL BE USED TO PROVIDE ACTUATION.
10. FLAGGERS SHALL BE EQUIPPED WITH A WHITE HARD HAT, AN ORANGE VEST, AND A "STOP/SLOW" PADDLE ON A 5 FOOT STAFF.
11. ALL TRAFFIC CONTROL DEVICES MUST BE MAINTAINED 24 HOURS A DAY, 7 DAYS PER WEEK, BY THE CONTRACTOR.
12. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2014 EDITION.
13. TRAFFIC CONTROL PLAN SUBMITTALS ARE REQUIRED FOR EACH PHASE OF THE WORK IN THE DETAIL, FORMAT, AND QUALITY ILLUSTRATED ON THIS SHEET.
14. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM VIEW OR COVERED WHEN NOT IN USE.
15. THE CITY ENGINEER OR HIS/HER REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO INSURE PUBLIC SAFETY.
16. ALL WORK AFFECTING BUS STOPS SHALL BE COORDINATED WITH CITY'S TRANSIT DISTRICT. CONTRACTOR SHALL CALL TRANSIT DISTRICT AT LEAST 72 HOURS IN ADVANCE OF STARTING WORK.
17. CHANGEABLE MESSAGE SIGNS SHALL BE USED IN ADVANCE OF TRAFFIC CONTROL ON MAJOR AND PRIME ARTERIALS, UNLESS OTHERWISE APPROVED. THESE SIGNS SHALL BE SHOWN ON THE TRAFFIC CONTROL PLAN.

SIGNAGE NOTES:

1. AT LEAST ONE PERSON SHALL BE ASSIGNED TO FULL TIME MAINTENANCE OF TRAFFIC CONTROL DEVICES ON ALL NIGHT LANE CLOSURES.
2. ALL WARNING SIGNS FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED OR REFLECTORIZED AS SPECIFIED IN THE SPECIFICATIONS.
3. ALL ADVANCE WARNING SIGN INSTALLATIONS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES OF ALL MAJOR AND PRIME ARTERIALS. FLASHING BEACONS SHALL BE USED DURING NIGHT LANE CLOSURES.
4. A G20-2 "END ROAD WORK" SIGN SHALL BE PLACED AT THE END OF THE LANE CLOSURE UNLESS THE END OF THE WORK AREA IS OBVIOUS, OR ENDS WITHIN A LARGER PROJECT LIMITS.
5. ALL CONES USED FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED TRAFFIC CONES OR FITTED WITH 13" REFLECTIVE SLEEVES.
6. FLASHING ARROW SIGNS SHALL BE USED PER CA MUTCD 2014 EDITION. SILENT TYPE SHALL BE USED IN RESIDENTIAL AREAS.
7. THE MAXIMUM SPACING BETWEEN CONES SHALL BE THE WORK AREA'S SPEED LIMIT.
8. ADDITIONAL ADVANCE FLAGGERS SHALL BE REQUIRED WHEN TRAFFIC QUEUES DEVELOP. FLAGGER STATIONS FOR WORK AT NIGHT SHALL BE ILLUMINATED AS NOTED IN SECTION 6G.20 OF THE MUTCD.
9. ALL REQUIRED SIGNS THAT ARE TO BE LEFT IN PLACE OVER A WEEKEND OR HOLIDAY SHALL BE POST MOUNTED.
10. CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL MEET THE PROVISIONS OF 2014 CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:



65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

DRAWN BY: AE  
CHECKED BY: GD

REVISIONS:

REV	DATE	DESCRIPTION	BY
0	10/23/19	INITIAL DESIGN	FB
1	06/11/21	TRENCH REV.	FB

LICENSER:



EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-24-19

PROJECT INFORMATION:

LDRAH-004A  
6174 BUCKINGHAM PKWY.  
CULVER CITY, CA 90230

SHEET TITLE:

TRAFFIC CONTROL  
GENERAL NOTES

SHEET NUMBER:

TC-1











**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_004A)  
6174 Buckingham Parkway • Culver City, California**

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

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of AT&T Mobility, a personal wireless telecommunications carrier, to evaluate its small cell (No. CRAN\_RLOS\_LDRAH\_004A) proposed to be sited in Culver City, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

**Executive Summary**

AT&T proposes to install four small antennas on the municipal light pole sited in the public right-of-way near 6174 Buckingham Parkway in Culver City. 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 limit for exposures of unlimited duration at several wireless service bands are as follows:

<u>Wireless Service Band</u>	<u>Transmit Frequency</u>	<u>“Uncontrolled” Public Limit</u>	<u>Occupational Limit (5 times Public)</u>
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm <sup>2</sup>	5.0 mW/cm <sup>2</sup>
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

**General Facility Requirements**

Small cells 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 radios are typically mounted on the support pole or placed in a cabinet at ground level, and they

**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_004A)  
6174 Buckingham Parkway • Culver City, California**

are connected to the antennas by coaxial cables. 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”). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

### **Site and Facility Description**

Based upon information provided by AT&T, including drawings by Eukon Group, dated June 7, 2021, it is proposed to install four antennas – one Gamma Nu Model QOYZ9X360F14T, 2-foot-tall, omnidirectional\* cylindrical and three Ericsson Model 1281, 1-foot tall, directional panels – on a new light pole to replace the existing pole sited in the public right-of-way on the northwest side of the intersection of Buckingham Parkway and Kensington Way in Culver City. The Gamma Nu antenna would employ up to 6° downtilt and would be mounted within a shroud on top of the pole at an effective height of about 38 feet above ground. The Ericsson antennas would employ up to 15° downtilt, would be mounted below the light arm at an effective height of about 28½ feet above ground, and would be oriented with 120° spacing, to provide service in all directions. The maximum effective radiated power proposed in any direction is 942 watts, representing simultaneous operation at 280 watts for AWS and 240 watts for PCS from the Gamma Nu antenna,<sup>†</sup> and at 422 watts<sup>‡</sup> from the Ericsson antennas. There are reported no other wireless telecommunications base stations at the site or nearby.

---

\* Assumed to be omnidirectional, although manufacturer’s patterns show reduced power in certain directions.

† The drawings show space for “future” radios within the concealment shroud; these are unidentified at this time and so have not been included in this analysis.

‡ This is the maximum effective radiated power. The manufacturer reports that the antenna transmits 75% of the time in this band; this factor is incorporated into the calculation methodology.

**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_004A)  
6174 Buckingham Parkway • Culver City, California**

**Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed AT&T operation is calculated to be 0.039 mW/cm<sup>2</sup>, which is 3.9% of the applicable public exposure limit. The maximum calculated level at any nearby building<sup>§</sup> 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.

**Recommended Mitigation Measures**

Due to their mounting locations and heights, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training be provided to all workers who have access within 10 feet outward from the Ericsson antennas<sup>\*\*</sup> or 3½ feet outward from the Gamma Nu antenna. No access within 2½ feet directly in front of the Ericsson antennas should be allowed while they are in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that explanatory signs<sup>††</sup> be posted at the antennas and/or on the pole below the antennas, readily visible from any angle of approach.

**Conclusion**

Based on the information and analysis above, it is the undersigned’s professional opinion that operation of the small cell proposed by AT&T Mobility near 6174 Buckingham Parkway in Culver City, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will 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 small cells. Training authorized personnel and posting explanatory signs are recommended to establish compliance with FCC guidelines.

---

<sup>§</sup> Located at least 90 feet away, based on photographs from Google Maps.

<sup>\*\*</sup> May include workers on the pole or on a lift to trim nearby trees.

<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 guidelines from the landlord, local zoning or health authority, or appropriate professionals may be required.

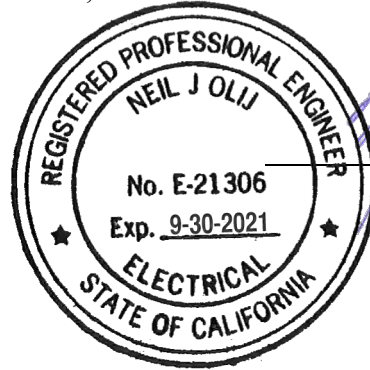




**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_004A)  
6174 Buckingham Parkway • Culver City, California**

**Authorship**

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. 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.



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

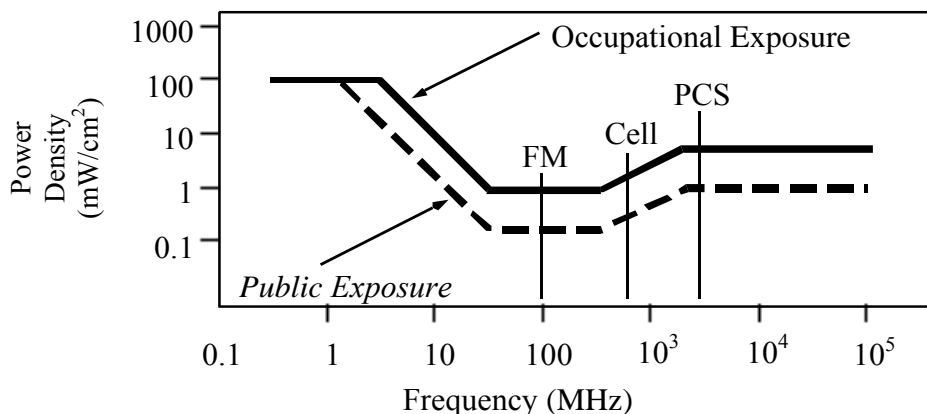
June 30, 2021

## 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 (f 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	$3.54\sqrt{f}$	<i><math>1.59\sqrt{f}</math></i>	$\sqrt{f}/106$	<i><math>\sqrt{f}/238</math></i>	$f/300$	<i><math>f/1500</math></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 incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

## 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 antenna, in degrees,

$P_{net}$  = net power input to antenna, in watts,

$D$  = distance from antenna, in meters,

$h$  = aperture height of 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:

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

where  $ERP$  = total ERP (all polarizations), in kilowatts,

$RFF$  = three-dimensional relative field factor toward point of calculation, and

$D$  = distance from antenna effective height to 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 is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.



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6174 Buckingham Parkway • Culver City, California**

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

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of AT&T Mobility, a personal wireless telecommunications carrier, to evaluate its small cell (No. CRAN\_RLOS\_LDRAH\_004A) proposed to be sited in Culver City, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

**Executive Summary**

AT&T proposes to install four small antennas on the municipal light pole sited in the public right-of-way near 6174 Buckingham Parkway in Culver City. 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 limit for exposures of unlimited duration at several wireless service bands are as follows:

<u>Wireless Service Band</u>	<u>Transmit Frequency</u>	<u>“Uncontrolled” Public Limit</u>	<u>Occupational Limit (5 times Public)</u>
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm <sup>2</sup>	5.0 mW/cm <sup>2</sup>
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

**General Facility Requirements**

Small cells 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 radios are typically mounted on the support pole or placed in a cabinet at ground level, and they

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are connected to the antennas by coaxial cables. 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”). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

### **Site and Facility Description**

Based upon information provided by AT&T, including drawings by Eukon Group, dated June 7, 2021, it is proposed to install four antennas – one Gamma Nu Model QOYZ9X360F14T, 2-foot-tall, omnidirectional\* cylindrical and three Ericsson Model 1281, 1-foot tall, directional panels – on a new light pole to replace the existing pole sited in the public right-of-way on the northwest side of the intersection of Buckingham Parkway and Kensington Way in Culver City. The Gamma Nu antenna would employ up to 6° downtilt and would be mounted within a shroud on top of the pole at an effective height of about 38 feet above ground. The Ericsson antennas would employ up to 15° downtilt, would be mounted below the light arm at an effective height of about 28½ feet above ground, and would be oriented with 120° spacing, to provide service in all directions. The maximum effective radiated power proposed in any direction is 942 watts, representing simultaneous operation at 280 watts for AWS and 240 watts for PCS from the Gamma Nu antenna,<sup>†</sup> and at 422 watts<sup>‡</sup> from the Ericsson antennas. There are reported no other wireless telecommunications base stations at the site or nearby.

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\* Assumed to be omnidirectional, although manufacturer’s patterns show reduced power in certain directions.

† The drawings show space for “future” radios within the concealment shroud; these are unidentified at this time and so have not been included in this analysis.

‡ This is the maximum effective radiated power. The manufacturer reports that the antenna transmits 75% of the time in this band; this factor is incorporated into the calculation methodology.

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**Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed AT&T operation is calculated to be 0.039 mW/cm<sup>2</sup>, which is 3.9% of the applicable public exposure limit. The maximum calculated level at any nearby building<sup>§</sup> 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.

**Recommended Mitigation Measures**

Due to their mounting locations and heights, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training be provided to all workers who have access within 10 feet outward from the Ericsson antennas<sup>\*\*</sup> or 3½ feet outward from the Gamma Nu antenna. No access within 2½ feet directly in front of the Ericsson antennas should be allowed while they are in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that explanatory signs<sup>††</sup> be posted at the antennas and/or on the pole below the antennas, readily visible from any angle of approach.

**Conclusion**

Based on the information and analysis above, it is the undersigned’s professional opinion that operation of the small cell proposed by AT&T Mobility near 6174 Buckingham Parkway in Culver City, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will 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 small cells. Training authorized personnel and posting explanatory signs are recommended to establish compliance with FCC guidelines.

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<sup>§</sup> Located at least 90 feet away, based on photographs from Google Maps.

<sup>\*\*</sup> May include workers on the pole or on a lift to trim nearby trees.

<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 guidelines from the landlord, local zoning or health authority, or appropriate professionals may be required.





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**Authorship**

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. 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.



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

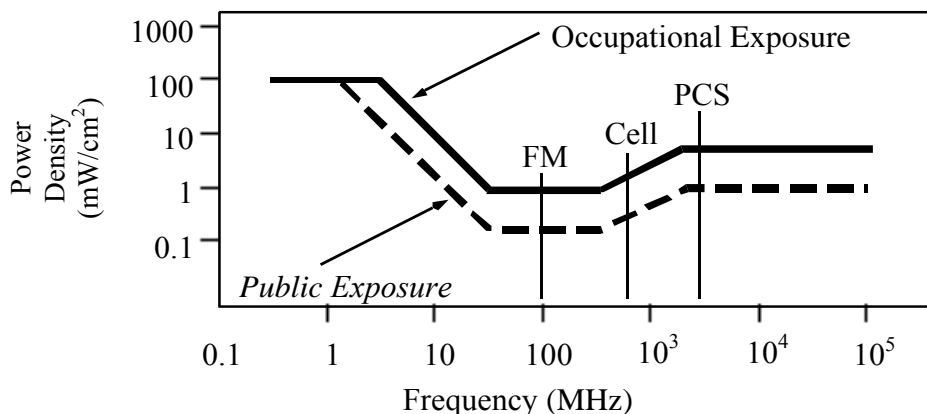
June 30, 2021

## 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 (f 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	$3.54\sqrt{f}$	<i><math>1.59\sqrt{f}</math></i>	$\sqrt{f}/106$	<i><math>\sqrt{f}/238</math></i>	$f/300$	<i><math>f/1500</math></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 incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

## 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 antenna, in degrees,

$P_{net}$  = net power input to antenna, in watts,

$D$  = distance from antenna, in meters,

$h$  = aperture height of 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:

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

where  $ERP$  = total ERP (all polarizations), in kilowatts,

$RFF$  = three-dimensional relative field factor toward point of calculation, and

$D$  = distance from antenna effective height to point of calculation, in meters.

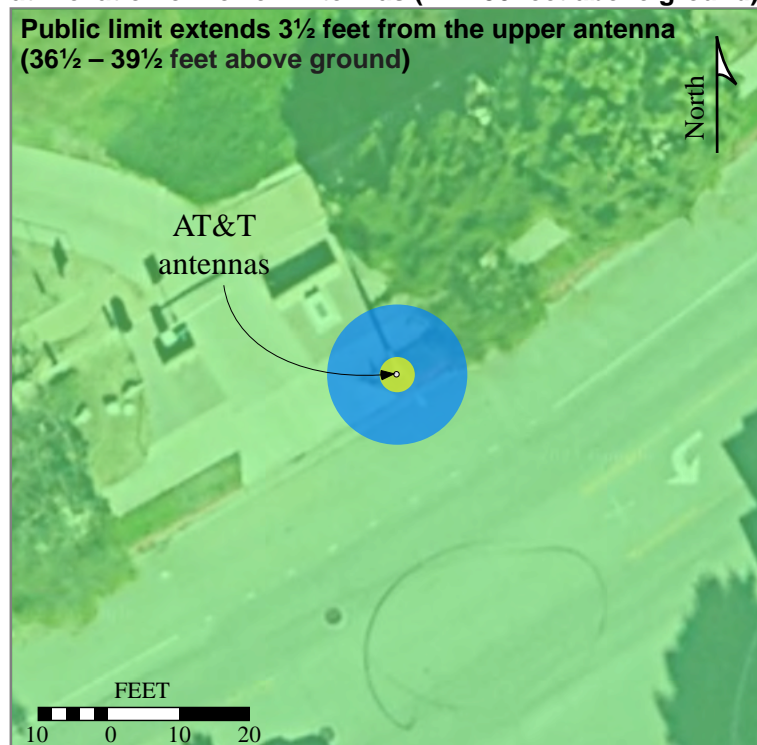
The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.



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**Calculated RF Exposure Levels**

**at Elevation of Lower Antennas (27 – 30 feet above ground)**



**Legend:**

- less than FCC Public Limit
- greater than FCC Public Limit  
less than FCC Occupational Limit
- greater than FCC Occupational Limit

**Notes:**

Calculations performed according to OET Bulletin No. 65, August 1997.

The FCC public limit extends about 10 feet from the lower antennas and about 3½ feet from the upper antenna, not reaching any publicly accessible areas. The FCC occupational limit extends about 2½ feet from the lower antennas; the upper antenna is intrinsically compliant with the occupational limit.

Base image from Google Maps.

**at Ground and at Nearby Buildings**





Yanni Demitri, P.E.  
Public Works Director and  
City Engineer

Mate Gaspar, P.E.  
Engineering Services Manager

# Culver CITY

PUBLIC WORKS DEPARTMENT

9770 Culver Boulevard, Culver City, California 90232



(310) 253-5600

FAX (310) 253-5626

February 14, 2022

Bardo Osorio  
EukonGroup  
1919 Williams St., Suite 200  
Simi Valley, CA 93065  
Email: bardo.osorio@eukongroup.com

**Re: Notice of Approval of Application, AT&T Small Cell LDRAH-005A – 5770 Uplander Way, U19-0441**

Dear Bardo:

Upon review of AT&T's application and supporting materials, we make the following findings:

1. Per the California Environmental Quality Act ("CEQA"), the State CEQA Guidelines, and the environmental regulations of the City above-referenced wireless facilities qualify as categorically exempt from CEQA pursuant to CEQA Guidelines § 15303(e), New Construction or Conversion of Small Structures;
2. The above-referenced wireless facilities are not detrimental to the public health, safety, and welfare;
3. These facilities comply with all applicable provisions of CCMC Section 11.20.065 and with all applicable design and development standards; and
4. These facilities meet applicable requirements and standards of state and federal law.

As a result, we approve AT&T's above-referenced application. This approval will be contingent upon AT&T complying with all conditions of the related Wireless Utility Permit. Any protests for this approval shall be made within 48 hours of the approval.

Sincerely,

Sammy Romo, P.E.  
Senior Civil Engineer



## **APPLICATION FORM FOR A WIRELESS UTILITY PERMIT TO PLACE FACILITIES IN THE PUBLIC RIGHT-OF-WAY**

### **INSTRUCTIONS:**

Persons applying for a wireless encroachment permit under the City of Culver City Municipal Code (the "Code") for the installation and operation of wireless facilities in the public right-of-way must fill out this application form and submit two (2) physical copies (with all necessary information and documentation) and one electronic copy (with all necessary information and documentation) on a flash drive. All application materials should be submitted in person to the following location:

City of Culver City – Department of Public Works/Engineering Division  
9770 Culver Blvd.  
Culver City, CA 90232

Applications and resubmittals may only be submitted on Mondays and Tuesdays between 8:00 am and 4:00 pm. Please make an appointment to submit your application by calling 310-253-5600.

For additional information regarding application requirements and all other requirements, please review Chapter 11.20 and Section 11.20.065 of the Code and visit the Public Works Telecommunications Utility Permit webpage at: [www.culvercity.org/wireless](http://www.culvercity.org/wireless). For questions, contact the Department of Public Works/Engineering Division at 310-253-5600. If your response to a question includes attachments, label the attachments with exhibit numbers that reflect the Part and Question number to which the exhibit corresponds. As examples: for information requested in Part A, Question 5.a), label the corresponding exhibit as "Exhibit A(5)(a)"; for information requested in Part C, Question 2.a).i, label the corresponding exhibit as "Exhibit C(2)(a)(i)".

### **PART A: BASIC INFORMATION (ALL APPLICANTS)**



## 1. Contact Information

- a) The applicant shall submit and maintain current at all times basic contact information set forth below. The applicant shall notify City of any changes to any of this information within fifteen (15) calendar days following any such change. This information shall include the following:
- i) The identity, including name, company, address, email, and telephone number of the applicant: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_;
- ii) The identity, including name, address, email, and telephone number of the owner of the proposed wireless facility, including official identification numbers and FCC certifications and, if different from the owner, the identity of the person or entity responsible for operating the proposed wireless facility: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_;
- iii) If the owner of the structure on which the proposed wireless facility would be installed is different than (ii) above, the identity, including name, address, email, and telephone number of the owner of the structure:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_;
- iv) Name, address, email, and telephone number of a local contact person for emergencies: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_.

## 2. Purpose of Wireless Facility

Is the proposed wireless communications facility to be used for the provision of "personal wireless services" as defined by 47 U.S.C. Section 332(c)(7)(C)(i) on a sole or comingled basis?

- No. Specify the type(s) of wireless communications services to be provided using the proposed facility: \_\_\_\_\_.
- Yes. Specify the type(s) of personal wireless services: \_\_\_\_\_  
 \_\_\_\_\_.

### 3. Type of Application

Please check the applicable box(es) and provide the information required below as an attachment to this Application, along with a written explanation identifying the facts relied upon to support the claimed treatment.

- Eligible Facilities Requests. Applicant asserts that the application qualifies as an “eligible facilities request” (EFR) (as defined in 47 CFR § 1.6100(b)(3), or any successor provision). Applicant shall submit the information required in the Application Requirements Part C, Section 1 below. ***The applicable FCC shot clock is sixty (60) days.***
- Collocation – Small Cell Facility (Existing Structure). Applicant asserts that the application is being submitted for approval of a Collocation of a Small Wireless Facility, that is, the proposed facility both meets the definition of “small wireless facility” and is a “collocation” (both as defined by 47 C.F.R. § 1.6002). Replacements of existing structures are not “collocations”. Applicant shall submit the information required in Part B and the Application Requirements Part C, Section 3 below. ***The applicable FCC shot clock is sixty (60) days.***
- Small Cell Facility (New Structure). Applicant asserts that the application is being submitted for approval to deploy a Small Wireless Facility (as defined by 47 C.F.R. § 1.6002(l)) involving placement of a new structure. Replacements of existing structures are considered new structures. Applicant shall submit the information required in Part B and the Application Requirements Part C, Section 3 below. ***The applicable FCC shot clock is ninety (90) days.***
- Other Wireless Facility Expressly Permitted by State or Federal Law to be in the ROW. Applicant asserts that the application is being submitted for approval of a type of wireless services facility that applicable state or federal laws expressly permit to be in the City’s public rights-of-way. If you checked this box, please attach an explanation of the basis for your assertion, including citations to supporting law, and state what FCC shot clock you assert applies to this application, if any. Submit the information required in the Application Requirements Part C, Section 3 below. Also, complete Part B if you answered yes to Part A, Question 2.
- Permit Renewal. Applicant asserts that the application is being submitted for a renewal of an existing wireless encroachment permit or predecessor permit. If you checked this box, please submit a copy of the original permit, any prior renewals or extensions thereof, and the information required in the Application Requirements Section Part C(2) below.

**Also check the following Waiver Request box if applicable to your application.**

- Waiver Request. Applicant asserts that its application includes a waiver request. Applicant shall include a request for a waiver, as set forth in Section 11.20.065(F)(5) of the Code, and any additional information required in the Application Requirements Part C, Section 4 below. A request for waiver may be submitted at a later time if it is determined that the proposed facility, as originally submitted, will not meet the requirements and restrictions of the Code.

#### 4. Application Fees

Applicant shall pay all applicable fees in the amounts established by the current fee schedule. In the event applicant has pre-paid all or a portion of applicable fees, please include a copy of the receipt from that transaction.

#### 5. Franchises, Authorizations and Licenses

To have a complete application, the applicant must have: (a) authorization to use the public rights-of-way; (b) licenses to provide proposed services; and (c) authorization to use the proposed structure.

- a) Does applicant have an existing franchise or other authorization to place wireless facilities in the public rights-of-way?

No.

If no, the application will be considered incomplete.

Yes.

If yes, explain source of applicant's right to use the public rights-of-way and submit related documentation.

- b) Has applicant obtained all applicable licenses or other authorizations to provide the services proposed in connection with the application, whether required by the Federal Communications Commission, California Public Utilities Commission, or any other agency with authority over the proposed services.

No.

Yes.

If yes, submit related documentation such as FCC licenses or authorizations, a certificate of public convenience and necessity or a wireless identification registration (WIR) from the California Public Utilities Commission.

- c) Is proposed wireless facility to be attached to a structure owned or controlled by a party other than the owner of the proposed wireless facility?

No.

Yes.

If yes, identify the owner as one of the following:



- The City.  
 Other: \_\_\_\_\_(insert name).

If you selected Other, provide a copy of the authorization or license to use the structure.

If you selected the City, select one of the following:

- I have a General Terms and Conditions master license or other agreement with the City for use of the facility. [If you check this box, provide the document.]
- I have no license or other agreement, but I am applying/have applied for one. [If you check this box, the application for a license or agreement must be provided, along with payment or proof of payment of required fees.]
- I have no license or other agreement, and have not applied for a license or other agreement. By checking this box and signing below, you acknowledge and agree that the wireless encroachment permit that is the subject of this application is not a substitute for a license or other agreement to use any City facility, that such license or agreement must be separately applied for and that this wireless encroachment permit application will remain incomplete until the necessary license or other agreement has been approved by the City.

Agreed: \_\_\_\_\_

**PART B: PERSONAL WIRELESS SERVICES FACILITIES (RESPOND IF APPLICABLE)**

1. Based on the work proposed in connection with this project, identify any and all additional permits, approvals, or agreements (“Ancillary Permissions”) you contend must be issued (absent agreement) by the time the City must take action on this wireless application. It is the applicant’s responsibility to review Code, city policies and all state and federal regulations (including, but not limited to, FCC regulations) applicable to the deployment of this wireless facility and to thereby identify all Ancillary Permissions that will be needed before this project can be deployed. The applicant’s failure to conduct a thorough investigation and to identify all required Ancillary Permissions may be grounds for denying this application or for declaring it incomplete. For example, if the proposed wireless facility would be placed on a structure where historical review would be required, the applicant must identify the required historic review permit(s) here. Please identify all Ancillary Permissions that you contend will be required for your wireless project:

- a)     \_\_\_ Fiber Utility Permit
- b)     \_\_\_ Building Permit
- c)     \_\_\_ Electrical Permit

- d) \_\_\_ Traffic Control Permit
- e) \_\_\_ Excavation Permit
- f) \_\_\_ Historical Review Permit
- g) \_\_\_ Other Permit(s). Identify: \_\_\_\_\_

Alternatively, rather than identifying all Ancillary Permissions above, you may agree as follows by signing below: "I agree that, should this wireless application be granted, or granted subject to conditions, no work may be undertaken on the applied-for wireless facility until any required Ancillary Permissions which are not identified above have been applied for and obtained."

Agreed: \_\_\_\_\_

2. Please provide an attachment that identifies any Ancillary Permissions you identified in response to "1." (above) and, with respect to each of those Ancillary Permissions, include the following completed checklist:
  - I have the required permit. [If you check this box, attach the required permit.]
  - I don't have this permit, but I am applying or have applied for one. [If you check this box, the application and all fees or proof of payment of all such fees must be provided.]

### **PART C: DETAILED APPLICATION REQUIREMENTS (RESPOND TO RELEVANT SECTIONS)**

The information required to be included in your application is dependent upon whether it is an eligible facilities request, a renewal of an existing permit, or any other application type. Please reference the appropriate section below for your application type to read a detailed list of its requirements. Additionally, regardless of the application type, each applicant must demonstrate their adherence to the *Design and Development Standards for Wireless Facilities in the Public Rights-of-Way* that are adopted by Resolution of the City Council pursuant to Chapter 11.20.065.D.1 of the Code.

1. **ELIGIBLE FACILITIES REQUESTS: *For an application asserted to be an eligible facilities request***, the application must provide the following information:

#### **a) Location and Zoning Information**

- i) Location of the project site, including the nearest registered address, the names of the two nearest cross streets, GPS coordinates, and the present zone designation of the project site.
- ii) If the facility is proposed to be attached to an existing pole, provide the pole number. (To obtain a City-owned streetlight pole Facility ID number and to determine its small cell site status visit: [Streetlight Inventory](#))

- iii) Applicant shall include signed documentation indicating that applicant is the owner or is authorized by the owner of the structure and/or property to install and operate the proposed facility.

**b) Description of the Proposed Project**

- i) A description of the proposed facility(ies), including whether the project is a collocated facility or the replacement, removal, or modification of an existing facility.
- ii) A detailed explanation as to why applicant asserts that the facility constitutes an eligible facilities request, including reference to and analysis of applicable FCC rules as they pertain to the proposed facility.
- iii) A list of all facilities and equipment proposed to be installed and the dimensions, weight, and manufacturer's specifications for each.
- iv) A description of the concealment elements, if any, associated with the facilities as they will be modified, including but not limited to painting, and shielding as modified. The showing should be sufficient to demonstrate that the modifications will not defeat any existing concealment elements. If there will be no concealment elements, so state.
- v) A description of any ground disturbance necessary to complete the proposed project.
- vi) A description of the site and any deployment outside the site necessary to complete the proposed project.
- vii) If a collocation, a description of why this installation qualifies as a collocation within the meaning of the FCC rules.
- viii) A description of all changes made to the facility from the date of the original installation (whether or not approved) and a description of the changes in height since January 22, 2012.
- ix) A description of all changes to be made to the existing base station and/or tower, including, among other things, identifying precisely what changes will be made to the supporting structure.

**c) Prior Approvals/Permits**

- i) A copy of all approvals and/or permits for the tower or base station that is to be modified, and any subsequent modification approvals and/or permits, and of any required conditions (imposed by the City and/or third party) placed on the initial or subsequent approvals and/or permits.
- ii) A showing that the facility, as modified, will be in compliance with existing conditions of the underlying approval(s)/permit(s), whether or not it is in compliance with conditions as of the date of application. There must be a plan submitted for correction of any non-compliant condition.



**d) Site Plan**

- i) Three (3) copies of a facility site plan, at a scale of 1"=20' or larger, and including the following:
  - (1) A north-pointing arrow on each plan sheet;
  - (2) Title block with applicant's name, owner's name, and contact information;
  - (3) Depiction of the fully-constructed proposed facility;
  - (4) Location of lot lines, streets (with street names), easements, and all structures and improvements, including accessory equipment, underground utilities and support structures, existing and proposed;
  - (5) Existing and proposed elevations of all facilities, equipment, support structures, appurtenances, and other related structures;
  - (6) Slopes, contours, trees and other pertinent physical features of the site, existing and proposed;
  - (7) All exterior lighting on the site, existing and proposed;
  - (8) As to the nearest structure located on any properties abutting the site on which you are proposing to install your wireless facility, the location and use of that structure as well as the distance from that structure to the property line of the site on which you are proposing to install your wireless facility; and
  - (9) The location of parking for maintenance personnel.

**e) Site Photograph(s)**

- i) Current color photographs of the site and its surroundings.

**f) Visual Impact Analysis**

- i) A visual impact analysis, which shall include photomontage, photo simulation or similar technique, demonstrating, from all four primary directions (north, south, east, and west) the potential visual impacts of the proposed facility. Consideration shall be given to views from public areas as well as from private property.

**g) Noise**

- i) Operation of wireless facilities shall comply with the noise regulations set in Chapters 9.04 and 9.07 of the Code and the noise element of the General Plan. Demonstrate compliance by providing, among other relevant information, a description of the facilities and/or equipment within the applicant's project that are expected to induce or generate noise, as well as anticipated noise levels of said facilities and/or equipment. For facilities that generate noise, please provide testing data for noise assuming maximum facility utilization and operational utilization (worst

case) 10 feet from the source. Specify times and conditions during which noise generation will occur.

#### **h) FCC Radio Frequency Standards**

- i) A report signed by a California licensed professional engineer, with expertise in radio communications facilities and the calculation of radio frequency emissions, that affirms, under penalty of perjury, that the proposed installation will be compliant with the FCC's standards. The report must also contain the following:
  - (1) A description of each of the proposed antennas and all related fixtures, structures, appurtenances and apparatus, including the height above grade, volume in total cubic feet, materials, lighting, and the directionality of each antenna (e.g., omni, directional, etc.);
  - (2) The frequency, modulation and class of service;
  - (3) A clear identification of areas, both vertically and horizontally, where exposure levels will exceed FCC standards for general public and occupational exposures. Please note that applicant's analysis must show that it has appropriately taken cumulative exposures into account, and should show exposures based on "worst case" scenarios;
  - (4) A certification that the facility will comply with all applicable standards for radio frequency emissions, including cumulative effects, and a description of the manner in which the radio frequency emissions for the facility were calculated and the results of those calculations. Individual and cumulative emissions should be evaluated; and
  - (5) If the certification of the facility as currently installed, or as proposed to be modified, is subject to conditions designed to limit general public or occupational exposure, identify those conditions, and demonstrate that they have been satisfied, or describe when they will be satisfied.

#### **i) Structural Analysis**

- i) A report signed by a California licensed professional engineer qualified in structural engineering, containing the following:
  - (1) In the case of a wireless facility attached to existing infrastructure, documentation of the ability of the structure to support the antennas, the proposed method of affixing the antennas and the precise point at which the antennas shall be mounted;
  - (2) In the case of a facility with a support structure (e.g. monopole), documentation demonstrating: 1) that the structure is capable of supporting the antennas (and any other equipment to be attached to or supported by the support structure); 2) that the structure complies

with applicable laws and codes; 3) the structure's capacity for additional collocated antennas; 4) the precise point at which the antennas shall be mounted; and

- (3) A certification that the structure(s) on which the wireless facility (including all accessory equipment, such as radios, cabinets, etc.) will be placed can safely support the wireless facility; and that all elements of the wireless facility comply with applicable safety standards, including, without limitation, GO 95, 165, and 166.

**j) Notice**

- i) Evidence that notice has been given consistent with Attachment 1 to all necessary parties.

**2. RENEWAL REQUESTS: *For a renewal of an existing permit*, the application must provide the following information:**

**a) Location and Zoning Information**

- i) Location of the project site, including the nearest registered address, the names of the two nearest cross streets, GPS coordinates, and the current zone designation of the project site.
- ii) If the existing facility is attached to a pole, provide the pole number. (To obtain a City-owned streetlight pole Facility ID number and to determine its small cell site status visit: [Streetlight Inventory](#))
- iii) Applicant shall include signed documentation indicating that applicant is authorized by the owner of the support structure and/or real property to continue operating the facility.

**b) Description of the Project for Renewal**

- i) A description of the existing facility(ies).
- ii) A list of all facilities and equipment currently installed and the dimensions, weight, and manufacturer's specifications for each.
- iii) A written description of the concealment measures applicant is using to aesthetically blend the facility to the immediate surroundings and to minimize its visual impact. This should include, but not be limited to, a description of concealment techniques, sizing and placement of elements of the facility (including undergrounding), measures to limit visibility of the facility from residential dwelling units, and the textures and colors used in the concealment process. If none, so state.
- iv) A description of the site and any deployment outside the site.
- v) A description of all changes made to the facility from the date of the original installation (whether or not approved) and a description of the changes in height since January 22, 2012.



**c) Prior Approvals/Permits**

- i) A copy of all approvals and/or permits for the tower or base station and any subsequent modification approvals and/or permits, and of any required conditions (imposed by the City and/or third party) placed on the initial or subsequent approvals and/or permits.
- ii) A showing that the facility is in compliance with existing conditions of the underlying approval(s)/permit(s). If the facility is not in compliance with conditions as of the date of application, there must be a plan submitted for correction of any non-compliance condition.

**d) Facility Plan and Photograph(s)**

- i) Three (3) copies of the existing facility plan at a scale of 1"=20' or larger and including a north-pointing arrow on each sheet and title block with applicant's name, owner's name, and contact information.
- ii) Current color photographs of the facility and its surroundings.

**e) Visual Impact Analysis**

- i) A visual impact analysis, which shall include photographs, demonstrating from all four primary directions (north, south, east, and west) the visual impacts of the existing facility. Consideration shall be given to views from public areas as well as from private property.

**f) Noise**

- i) Operation of wireless facilities shall comply with the noise regulations set in Chapters 9.04 and 9.07 of the Code and the noise element of the General Plan. Demonstrate continued compliance by providing, among other relevant information, a description of the facilities and/or equipment within the applicant's project that induce or generate noise, as well as the noise levels of said facilities and/or equipment. For facilities that generate noise, please provide testing data for noise assuming maximum facility utilization and operational utilization (worst case) 10 feet from the source. Specify times and conditions during which noise generation will occur.

**g) FCC Radio Frequency Standards**

- i) A report signed by a California licensed professional engineer with expertise in radio communications facilities and the calculation of radio frequency emissions that affirms, under penalty of perjury, that the existing facility is compliant with the FCC's standards. The report must also contain the following:

- (1) A description of each of the antennas and all related fixtures, structures, appurtenances and apparatus, including the height above grade, volume in total cubic feet, materials, lighting, and the directionality of each antenna (e.g., omni, directional, etc.);
- (2) The frequency, modulation and class of service;
- (3) A clear identification of areas, both vertically and horizontally, where exposure levels exceed FCC standards for general public and occupational exposures. Please note that applicant's analysis must show that it has appropriately taken cumulative exposures into account, and should show exposures based on "worst case" scenarios;
- (4) A certification that the facility is in compliance with all applicable standards for radio frequency emissions, including cumulative effects, and a description of the manner in which the radio frequency emissions for the facility were calculated and the results of those calculations. Individual and cumulative emissions should be evaluated; and
- (5) If the certification of the facility as currently installed is subject to conditions designed to limit general public or occupational exposure, identify those conditions, and demonstrate that they have been satisfied, or describe when they will be satisfied.

#### **h) Structural Analysis**

- i) A report signed by a California licensed professional engineer qualified in structural engineering, containing the following:
  - (1) In the case of a wireless facility attached to existing infrastructure, documentation of the ability of the structure to continue to support the antennas and any required maintenance;
  - (2) In the case of a facility with a support structure (e.g. monopole), documentation that the structure is capable of continuing to support the antennas (and any other equipment attached to or supported by the support structure) and complies with applicable laws and codes, as well as the structure's capacity for additional collocated antennas; and
  - (3) A certification that the structure(s) on which the wireless facility (including all accessory equipment, such as radios, cabinets, etc.) is placed can continue to safely support the wireless facility; and that all elements of the wireless facility comply with applicable safety standards, including, without limitation, GO 95, 165, and 166.

#### **i) Notice**

- i) Evidence that notice has been given consistent with Attachment 1 to all necessary parties.

**3. ALL OTHER APPLICATIONS: *For all other types of applications*, the following must be provided:**

**a) Location and Zoning Information**

- See project plans, T1 i) Location of the project site, including the nearest registered address, the names of the two nearest cross streets, GPS coordinates, and the present zone designation of the project site.
- See project plans, T1 ii) If the facility is proposed to be attached to an existing utility pole, provide the pole number. (To obtain a City-owned streetlight pole Facility ID number and to determine its small cell site status visit: [Streetlight Inventory](#))
- See LOA iii) Applicant shall include signed documentation indicating that applicant is authorized by the owner of the support structure and/or real property to install and operate the proposed facility.

**b) Description of the Proposed Project**

- See project plans, T1 i) A description of the proposed facility(ies), including whether the project is a new facility, a collocated facility, or a modification to an existing facility.
- See Narrative ii) If the application is for a small cell facility, an explanation asserting all of the grounds why the proposed facility constitutes a small cell facility.
- See Narrative iii) If a new facility, the applicant shall include an explanation of whether the new facility could and will be designed to accommodate future wireless facilities.
- See project plans iv) A list of all facilities and equipment proposed to be installed and the dimensions, weight, and manufacturer's specifications for each.
- See Narrative v) A written description of the concealment measures applicant proposes to use to aesthetically blend the facility to the immediate surroundings and to minimize its visual impact. This should include, but not be limited to, a description of proposed concealment techniques, sizing and placement of elements of the facility (including undergrounding proposed), measures proposed to limit visibility of the facility from residential dwelling units, and the textures and colors to be used in the concealment process. If none, so state.
- Boring will be used for excavation of trenches and related hand holes. See project plans, sheets A1 and A2. vi) A description of any ground disturbance necessary to complete the proposed project.
- vii) A description of the site and any deployment outside the site necessary to complete the proposed project. N/A
- viii) If a collocation, a description of why this installation qualifies as a collocation within the meaning of the FCC rules. Applicant must also provide the following:
- Not a collocation (1) A description of all installation procedures and plans for the facility; and



- (2) A description of all changes to be made to the existing structure, which description will, among other things, identify precisely what changes will be made to the supporting structure.

### c) Prior Approvals/Permits

N/A - no existing wireless facility

- i) If a wireless facility already exists on the site, provide the following:
- (1) A copy of all approvals and/or permits for the tower or base station that is to be modified, and any subsequent modification approvals and/or permits, and of any required conditions (imposed by the City and/or third party) placed on the initial or subsequent approvals and/or permits.
  - (2) A showing that the facility, as modified, will be in compliance with existing conditions, whether or not it is in compliance with conditions as of the date of application. There must be a plan submitted for correction of any non-compliant condition.

### d) Site Plan

See project plans

- i) Three (3) copies of a facility site plan at a scale of 1"=20' or larger and including the following:
- (1) A north-pointing arrow on each plan sheet;
  - (2) Title block with applicant's name, owner's name, and contact information;
  - (3) Depiction of the fully-constructed proposed facility;
  - (4) Location of lot lines, streets (with street names), easements, and all structures and improvements, including accessory equipment, underground utilities and support structures, existing and proposed;
  - (5) Existing and proposed elevations of all facilities, equipment, support structures, appurtenances, and other related structures
  - (6) Slopes, contours, trees and other pertinent physical features of the site, existing and proposed;
  - (7) All exterior lighting on the site, existing and proposed;
  - (8) Location use and approximate distance from property lines of the nearest structures on all properties abutting the site; and
  - (9) The location of parking for maintenance personnel.

N/A

### e) Landscape Plan

- i) If any landscaped ground will be disturbed, three (3) copies of a landscape plan for the site, at a scale of 1/8"=1' or larger, and including the following:
- (1) Existing trees within fifty feet (50') of the proposed wireless communication facility;
  - (2) Species, diameter and condition of all such trees;

- (3) Final disposition of all existing trees; and
- (4) Species, location and sizes of trees and other vegetation proposed to be installed in conjunction with the wireless communication facility.

#### **f) Site Photograph(s)**

See Photosimulations i) Current color photographs of the site and its surroundings.

#### **g) Visual Impact Analysis**

See visual impact analysis i) A visual impact analysis, which shall include photomontage, photo simulation or similar technique, demonstrating, from all four primary directions (north, south, east, and west) the potential visual impacts of the proposed facility. Consideration shall be given to views from public areas as well as from private property. The analysis shall assess the cumulative impacts of the proposed wireless communication facility and other existing wireless facilities in the area, and shall identify and include all feasible mitigation measures consistent with the technological requirements of the proposed facility.

#### **h) Noise**

See noise study i) Operation of wireless facilities shall comply with the noise regulations set in Chapters 9.04 and 9.07 of the Code and the noise element of the General Plan. Demonstrate compliance by providing, among other relevant information, a description of the facilities and/or equipment within the applicant's project that are expected to induce or generate noise, as well as anticipated noise levels of said facilities and/or equipment. For facilities that generate noise, please provide testing data for noise assuming maximum facility utilization and operational utilization (worst case) 10 feet from the source. Specify times and conditions during which noise generation will occur.

#### **i) FCC Radio Frequency Standards**

See EME - RF Study i) A report signed by a California licensed professional engineer with expertise in radio communications facilities and the calculation of radio frequency emissions that affirms, under penalty of perjury, that the proposed installation will be compliant with the FCC's standards. The report must also contain the following:

- (1) A description of each of the proposed antennas and all related fixtures, structures, appurtenances and apparatus, including the height above grade, volume in total cubic feet, materials, lighting, and the directionality of each antenna (e.g., omni, directional, etc.);

- (2) The frequency, modulation and class of service;
- (3) A clear identification of areas, both vertically and horizontally, where exposure levels will exceed FCC standards for general public and occupational exposures. Please note that applicant's analysis must show that it has appropriately taken cumulative exposures into account, and should show exposures based on "worst case" scenarios;
- (4) A certification that the facility will comply with all applicable standards for radio frequency emissions, including cumulative effects, and a description of the manner in which the radio frequency emissions for the facility were calculated and the results of those calculations. Individual and cumulative emissions should be evaluated; and
- (5) If the certification of the facility as currently installed, or as proposed to be modified, is subject to conditions designed to limit general public or occupational exposure, identify those conditions, and demonstrate that they have been satisfied, or describe when they will be satisfied.

#### **j) Structural Analysis**

- See Structural Analysis
- i) A report signed by a California licensed professional engineer qualified in structural engineering, containing the following:
    - (1) In the case of a wireless facility attached to existing infrastructure, documentation of the ability of the structure to support the antennas, the proposed method of affixing the antennas and the precise point at which the antennas shall be mounted;
    - (2) In the case of a facility with a support structure (e.g. monopole), documentation that the structure is capable of supporting the antennas (and any other equipment to be attached to or supported by the support structure) and complies with applicable laws and codes, as well as the structure's capacity for additional collocated antennas, and the precise point at which the antennas shall be mounted; and
    - (3) A certification that the structure(s) on which the wireless facility (including all accessory equipment, such as radios, cabinets, etc.) will be placed can safely support the wireless facility; and that all elements of the wireless facility comply with applicable safety standards, including, without limitation, GO 95, 165, and 166.

#### **k) Notice**

- i) Evidence that notice has been given consistent with Attachment 1 to all necessary parties.



**I) Justification for Location/Collocation**

See Alternate Site Analysis

- i) A justification as to why the applicant chose the location for the proposed wireless communication facility. Such justification shall include a written assessment of not less than two (2) alternative locations considered by the applicant and the reasons why said alternative locations were rejected as candidates.
- ii) A written explanation of the applicant’s investigation into collocating the proposed facility with an existing facility. Indicate whether collocation is or is not feasible and why.

**m) Map of Applicant’s Existing Wireless Facilities and Coverage Assessment**

See RF Propagation Maps

- i) A map and narrative description of all existing wireless facility sites used by the applicant which are located within the City, and any wireless facility sites located outside of the City but which provide coverage within any part of the City.


**4. WAIVER REQUEST [if applicable]**

N/A

- a) If it is contended that the City is required by federal or state law to approve the facility, applicant must submit the information it relies upon to support that claim, identifying: (i) the legal standard it claims applies; (ii) the showings it relies upon for its claim; (iii) alternative legal standards that may apply that it claims to meet; and (iv) the showings it relies upon for those claims. Applicants are cautioned that, should they choose not to submit with respect to items (iii) and (iv), and the City believes that applicant misapplies or relies on the wrong legal standard, the waiver (and consequently the application) may be denied.

**PART D: CERTIFICATION (ALL APPLICANTS)**

I (we) hereby certify under penalty of perjury that (1) after diligent investigation, the information provided pursuant to this Application Form is true, accurate, and complete to the best of my (our) knowledge and belief; and (2) upon completion of the work proposed, the permitted personal wireless services facility will comply with all applicable laws, regulation, practices or other requirements under federal, state, or local law, including, but not limited to, building and electrical codes, the FCC’s radio frequency emissions standards, and the requirements of the Americans with Disabilities Act.

	10-28-19
Applicant’s Signature	Date

Adrian Culici  


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Applicant’s Printed Name

## Attachment 1

All applicants for Wireless Encroachment Permits shall comply with the following notice requirements:

1. Notice of the applicant's pending application shall be mailed, by the applicant to the businesses and residences within a 500 foot radius of each of the proposed wireless facilities.
2. The contents of the mailed notice shall include, at a minimum:
  - a. A description of the location of each proposed wireless facility with sufficient specificity to allow notice recipients to be able to locate the involved location without requiring any additional information
  - b. Photo simulations of the proposed installation
  - c. The manner in which additional information may be obtained
  - d. Any other information deemed necessary by the Director of Public Works or his/her designee
3. The applicant shall also post the notice in compliance with the following specifications:
  - a. In a conspicuous place at the location of the proposed wireless facility
  - b. Be 12 square feet in sign area
  - c. A minimum of 4 feet in height from the ground level with a maximum height of 8 feet
  - d. Not be illuminated
  - e. Include the name and telephone number of the applicant
  - f. Include the telephone number of the Public Works Department
  - g. Contain only lettering whose size, style and color have been approved by the Director of Public Works
  - h. Include photo simulations of the proposed wireless facility
  - i. Remain in place until completion of construction and final approval by the City
  - j. Be removed, by the applicant, no later than 10 days after completion of construction and final approval of the project by Culver City
4. Submit to the Director of Public Works an affidavit verifying that the applicant has mailed and posted notices in full compliance with these notice requirements.



# Small Cell LDRAH 05

## Culver City - Alternative Sites Analysis

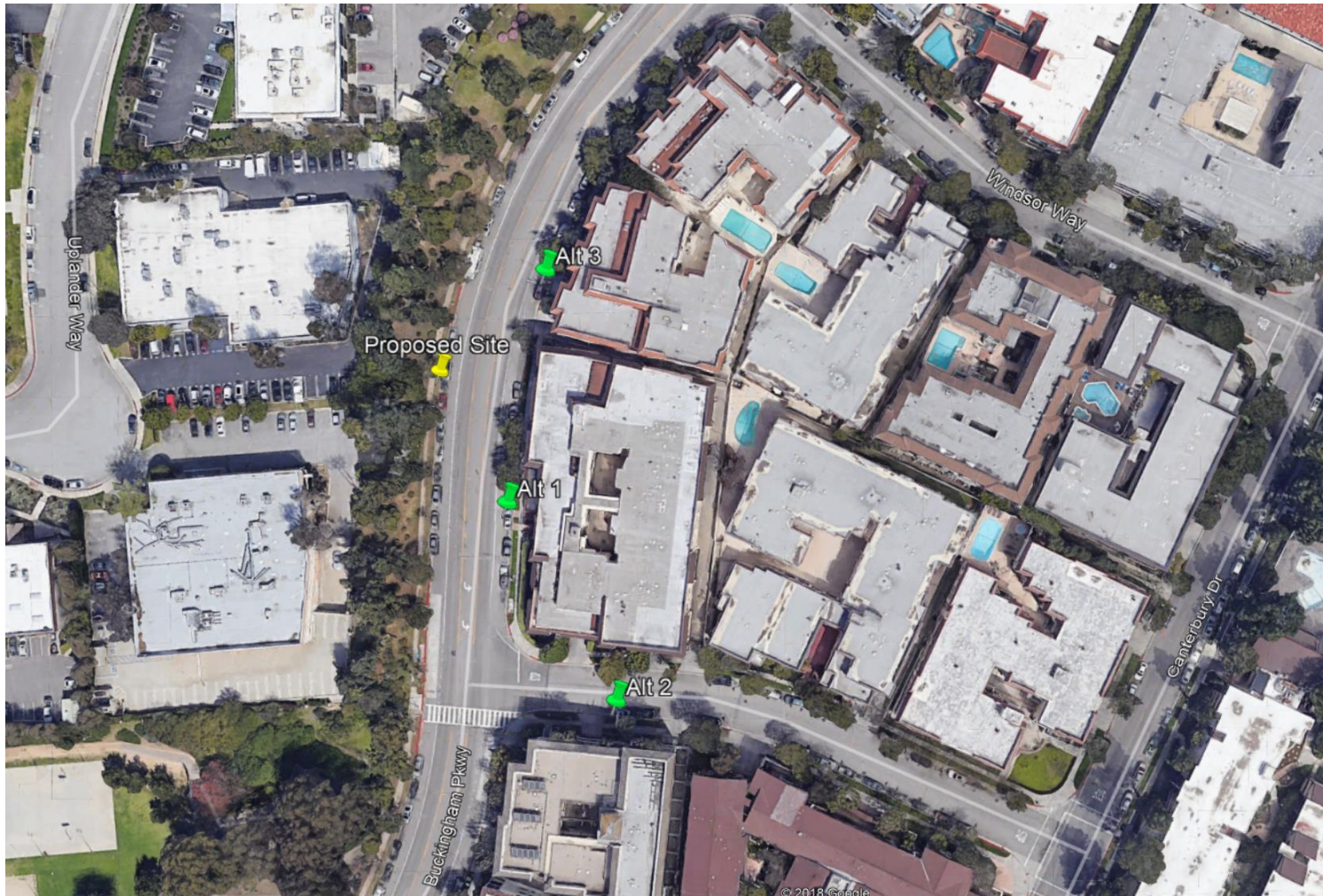




## Proposed Small Cell LDRAH 05

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Culver City, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than construct several additional macro facilities throughout the residential neighborhoods of Culver City, AT&T is choosing to deploy very small facilities, called “small cells,” that can be deployed on utility infrastructure in the public rights-of-way.
- A small cell is a low-powered cell site, which, when grouped with other small cells, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each small cell antenna spans over a shorter range than a conventional macro site, small cells can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- Small Cell LDRAH 05 will help close AT&T’s significant service coverage gap in this portion of the County by the least intrusive means.

## Map of Proposed Small Cell LDRAH 05 and Alternative Sites



On this aerial map, AT&T's Proposed Small Cell LDRAH 05 is designated as **Proposed Site** and the alternative sites are identified by **Alt 1**, **Alt 2** and **Alt 3**.







## Proposed Small Cell LDRAH 05



- Proposed Small Cell LDRAH 05 will be located in the public right-of-way on an existing wood utility pole near 5770 Uplander Way (Lat/Long: 33.985033, -118.384094).
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective.
- AT&T identified this as the least intrusive alternative.



# Small Cell LDRAH 05 – Collocation Alternatives



- AT&T first examined the area for collocation possibilities on existing Wireless Telecommunications Facilities (“WTF”) in the vicinity for establishing Small Cell LDRAH 05.
- Upon review of the area within 1000’, AT&T determined that there are no existing WTF’s available for a small cell collocation in the vicinity.



## Small Cell LDRAH 05 – Alternative 1

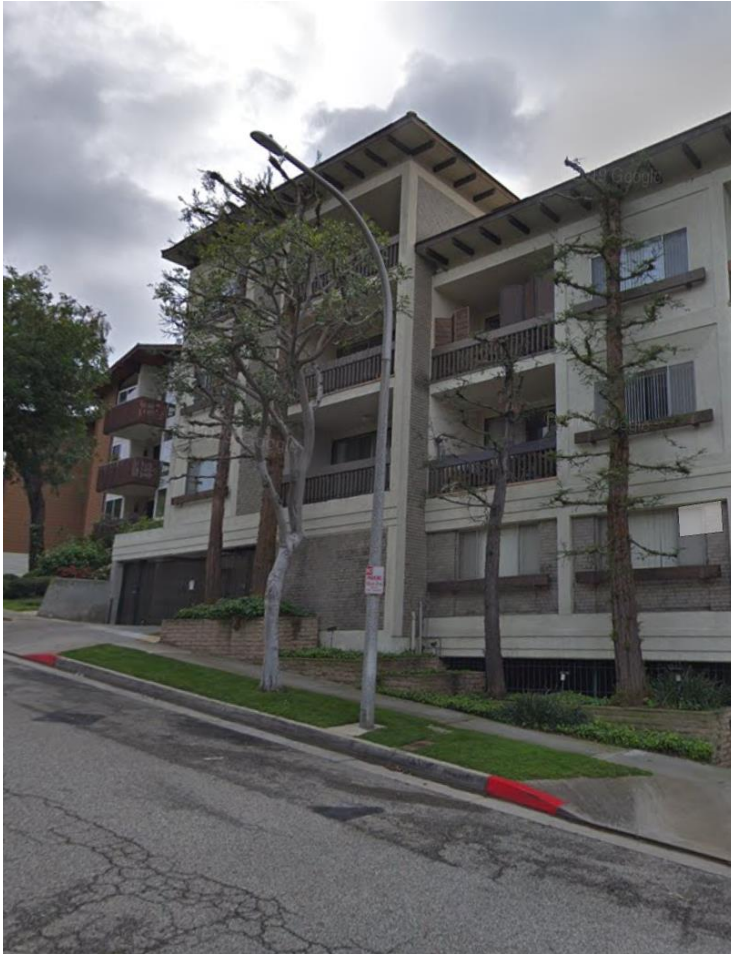


- This Alternative to Small Cell LDRAH 05 would be to locate on a utility pole in the public right-of-way near 6060 Buckingham Pkw, (Lat/Long: 33.984622, -118.383888).
- This pole is a viable alternative to help close AT&T's significant service coverage gap, in that power and necessary utilities are available at the location.
- This alternate is closer to habitable structures than the proposed (15' vs 85'), thus its visual impact is greater.





## Small Cell LDRAH 05 – Alternative 2



- This Alternative to Small Cell LDRAH 05 would be to locate on a utility pole in the public right-of-way near 5699 N Sumner Way, (Lat/Long: 33.984333, -118.383576).
- This pole is a viable alternative to help close AT&T's significant service coverage gap, in that power and necessary utilities are available at the location.
- This alternate is closer to habitable structures than the proposed (15' vs 85'), thus its visual impact is greater.



## Small Cell LDRAH 05 – Alternative 3



- This Alternative to Small Cell LDRAH 05 would be to locate on a utility pole in the public right-of-way near 6100 Buckingham Pkwy, (Lat/Long: 33.983925, -118.384036).
- This pole is a viable alternative to help close AT&T's significant service coverage gap, in that power and necessary utilities are available at the location.
- This alternate is closer to habitable structures than the proposed (15' vs 85'), thus its visual impact is greater.





## Proposed Small Cell LDRAH 05 - Conclusion

- Proposed Small Cell LDRAH 05 is an integral part of an overall small cell solution to help close AT&T's significant service coverage gap in this portion of Los Angeles County.
- Small Cell LDRAH 05 will provide wireless telecommunications services and faster data rates to the area businesses, residences & visitors.
- Small Cell LDRAH 05 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low-profile equipment to utility infrastructure in the public right-of-way.





# LDRAH - 05

5770 Uplander Way, Culver City, CA 90230



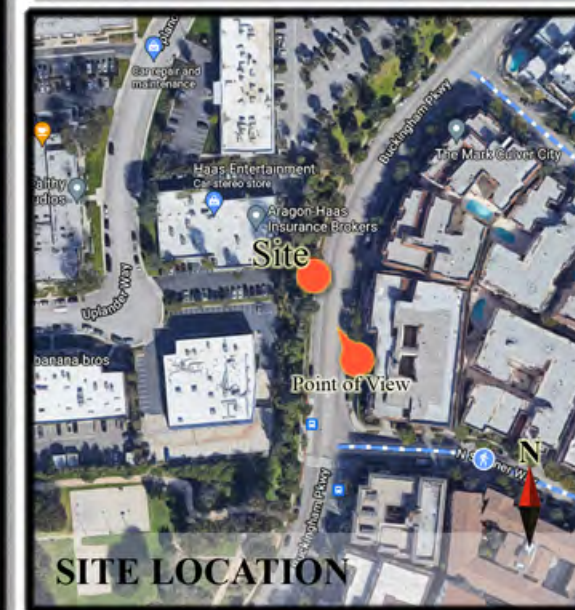
Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



**PROPOSED VIEW SOUTH-EAST**



**EXISTING VIEW SOUTH-EAST**



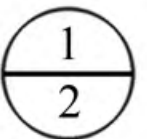
**SITE LOCATION**

### SITE COORDINATES

**Latitude:** 33.985033°

**Longitude:** -118.384094°

**SHEET NUMBER**







# LDRAH - 05

5770 Uplander Way, Culver City, CA 90230



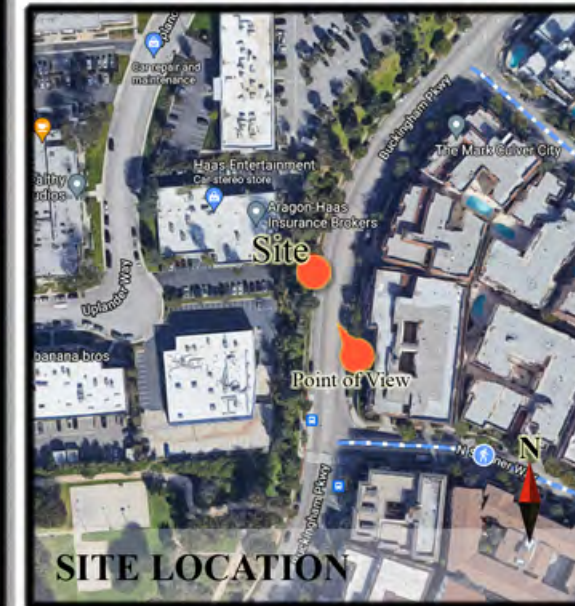
Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



**PROPOSED VIEW SOUTH-EAST**



**EXISTING VIEW SOUTH-EAST**

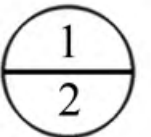


**SITE LOCATION**

### SITE COORDINATES

**Latitude:** 33.985033°  
**Longitude:** -118.384094°

**SHEET NUMBER**







# LDRAH - 05

5770 Uplander Way, Culver City, CA 90230



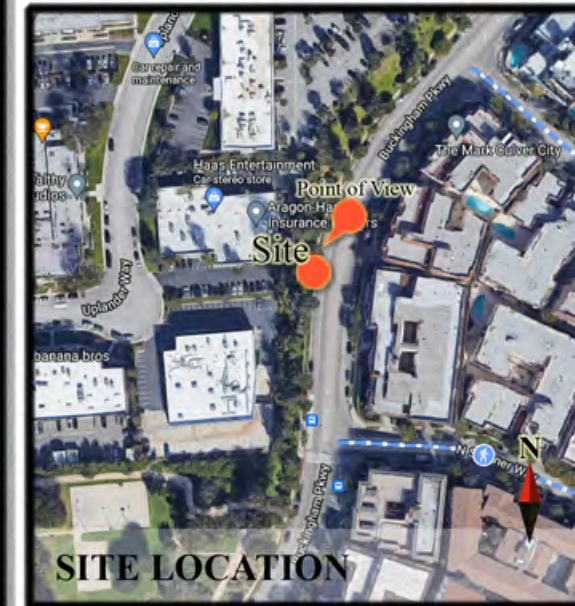
Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



**PROPOSED VIEW NORTH-EAST**



**EXISTING VIEW NORTH-EAST**



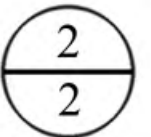
**SITE LOCATION**

**SITE COORDINATES**

**Latitude:** 33.985033°

**Longitude:** -118.384094°

**SHEET NUMBER**







# LDRAH - 05

5770 Uplander Way, Culver City, CA 90230



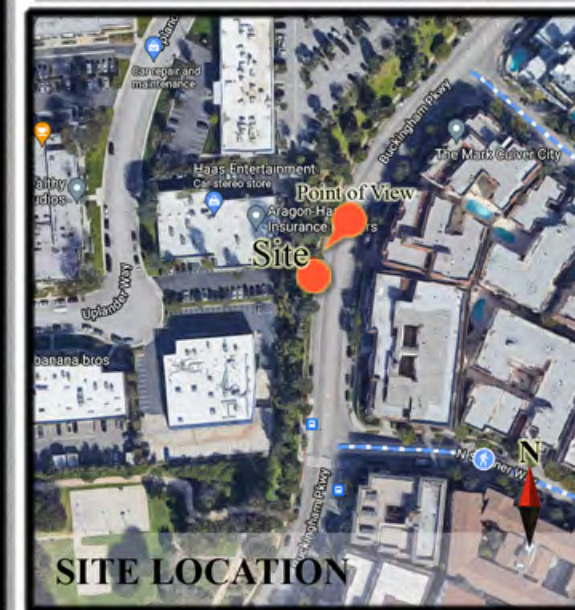
Eukon Group  
65 Post, Suite 1000 - Irvine,  
CA, 92618 - (949) 553-8566



**PROPOSED VIEW NORTH-EAST**



**EXISTING VIEW NORTH-EAST**



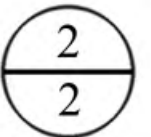
**SITE LOCATION**

**SITE COORDINATES**

**Latitude:** 33.985033°

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**SHEET NUMBER**





# EXHIBIT H1-A

**SITE NAME: LDRAH - 005A**  
**SITE NUMBER: CRAN - RLOS - LDRAH - 005A**  
**PROJECT: CRAN / SMALL CELL**  
**USID: 268956**  
**PACE #: MRLOS058079**



**Permit number U19-0441.**  
**Approved on 02/14/2022. Call**  
**Public Works Inspector before**  
**starting work: 951-741-8191**

**APPROVED**  
*for compliance with Engineering Division requirements*  
*See Below Date*  
*[Signature]*  
**CITY OF CULVER CITY**

1. THE EQUIPMENT SHALL BE REMOVED, AND THE SITE RETURNED TO ORIGINAL CONDITION IF CARRIER ABANDONS SITE.

**CITY NOTES**

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- 2016 CALIFORNIA ADMINISTRATIVE CODE
- 2016 CALIFORNIA BUILDING CODE
- 2016 CALIFORNIA ELECTRIC CODE
- 2016 CALIFORNIA MECHANICAL CODE
- 2016 CALIFORNIA PLUMBING CODE
- 2016 CALIFORNIA FIRE CODE
- ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOVE
- CITY/COUNTY ORDINANCES

**HANDICAP REQUIREMENTS:**  
 FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA ADMINISTRATIVE STATE CODE PART 2, TITLE 24, CHAPTER 11B, SECTION 1103B.

**CODE COMPLIANCE**

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS NEW.

**GENERAL NOTES**

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN CALIFORNIA (SOUTH), CALL DIG ALERT  
 TOLL FREE: 1-800-422-4133 OR www.digalert.org  
 CALIFORNIA STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

**Know what's below. Call before you dig.**

**PROPERTY OWNER:** PUBLIC RIGHT OF WAY  
**POLE OWNER:** CULVER CITY  
**POWER PROVIDER:** SOUTHERN CALIFORNIA EDISON (SCE)  
 P.O. BOX 700  
 ROSEMEAD, CA 91770  
 CONTACT: YOLANDA HUNTER  
 PHONE: (909) 477-6471

**APPLICANT:** AT&T  
**ADDRESS:** 1452 EDINGER AVE.  
 TUSTIN, CA 92780

**LATITUDE (NAD83):** 33° 59' 06.12" N  
 33.985033°

**LONGITUDE (NAD 83):** 118° 23' 02.74" W  
 -118.384094°

**LONGITUDE/LATITUDE TYPE:** NAD 83

**GROUND ELEVATION (NAVD 88):** ±86.93 AMSL

**ADJACENT APN #:** 4134-005-005

**JURISDICTION:** CULVER CITY

**CURRENT ZONING:** PUBLIC RIGHT OF WAY

**NEW USE:** UNMANNED TELECOMMUNICATIONS

**SITE INFORMATION**

**PROJECT MANAGER:** EUKON  
 1919 WILLIAMS STREET, SUITE 360  
 SIMI VALLEY, CA 93065  
 CONTACT: CHRISTOPHER AYLIA  
 PHONE: (805) 864-0378  
 EMAIL: Christopher.Aylya@eukongroup.com

**OSP ENGINEER:** EUKON  
 65 POST, SUITE 1000  
 IRVINE, CA 92615  
 CONTACT: AARON JONES  
 PHONE: (949) 547-2077  
 EMAIL: Aaron.Jones@eukongroup.com

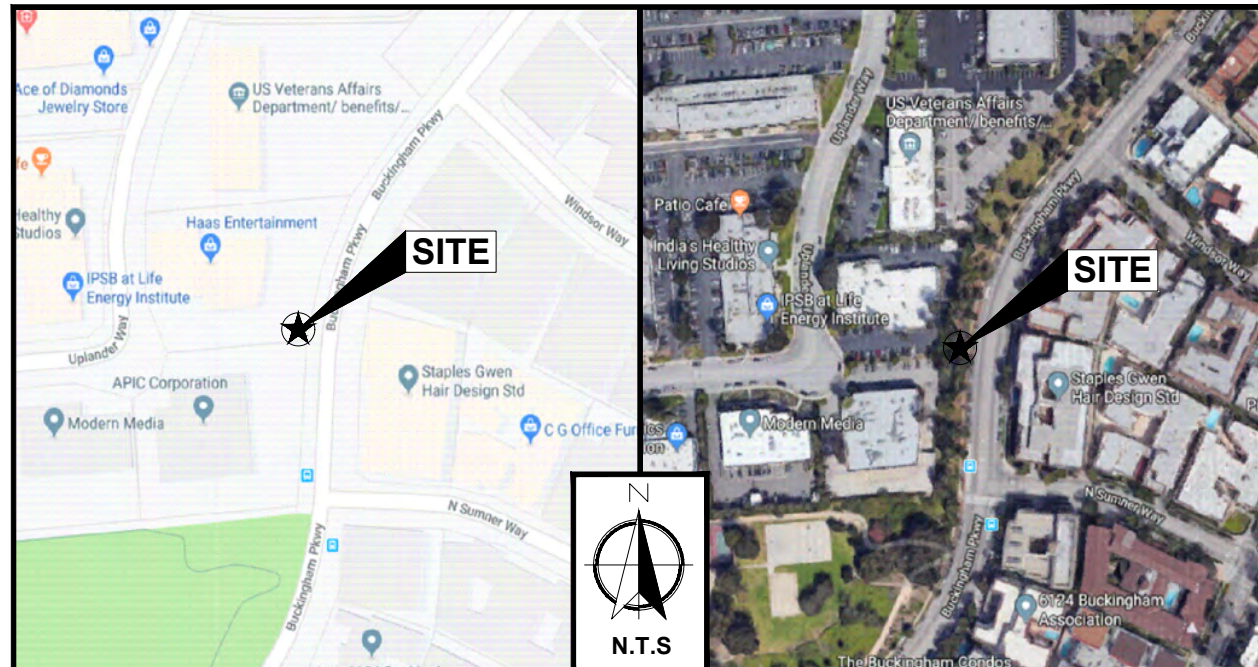
**SAC/ZONING/PERMITTING:** EUKON  
 1919 WILLIAMS STREET, SUITE 360  
 SIMI VALLEY, CA 93065  
 CONTACT: BARDO OSORIO  
 (714) 702-0566  
 EMAIL: bardo.osorio@eukongroup.com

**CONSTRUCTION MANAGER:** BOUCHARD COMMUNICATIONS  
 11231 BURBANK BLVD.  
 NORTH HOLLYWOOD, CA 91601  
 CONTACT: KIRK BOUCHARD  
 PHONE: (818) 761-2154  
 EMAIL: kb@bouchardcommunication.com

**RF ENGINEER:** AT&T  
 1452 EDINGER AVE.  
 TUSTIN, CA 92780  
 CONTACT: TEJ BURGULA  
 EMAIL: tb861h@att.com

**SENIOR TECHNICAL PROJECT MANAGER:** AT&T  
 1452 EDINGER AVE., 2ND FLOOR,  
 TUSTIN, CA 92780  
 CONTACT: OMAR MERE  
 EMAIL: om5039@att.com

**PROJECT TEAM**



**VICINITY MAP**                      **LOCAL MAP**

**DIRECTIONS FROM AT&T OFFICE:** HEAD NORTHEAST TOWARD AT&T. TURN LEFT TOWARD AT&T. TURN RIGHT ONTO AT&T. TURN LEFT ONTO EDINGER AVE. USE THE LEFT 2 LANES TO TURN LEFT ONTO DEL AMO AVE. USE THE RIGHT 2 LANES TO TAKE THE RAMP ONTO CA-55 N/STATE RTE 55 N. MERGE ONTO CA-55 N/STATE RTE 55 N. ARRIVE AT 5770 UPLANDER WAY, CULVER CITY, CA 90230

**DRIVING DIRECTIONS**

IF USING 11"x17" PLOT, DRAWINGS WILL BE HALF SCALE

**CONSTRUCTION DRAWING**

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & MAY IMPOSE CHANGES OR MODIFICATIONS.

APPROVED BY:	INITIALS:	DATE:
AT&T RF ENGINEER: _____		
AT&T OPERATIONS: _____		
SITE ACQUISITION MANAGER: _____		
PROJECT MANAGER: _____		
ZONING VENDOR: _____		
LEASING VENDOR: _____		
CONSTRUCTION MANAGER: _____		
A/E MANAGER: _____		
PROPERTY OWNER: _____		
UTILITY: _____		

**APPROVALS**

AT&T PROPOSES TO INSTALL A NEW WIRELESS FACILITY. THE SCOPE WILL CONSIST OF THE FOLLOWING:

- AT&T MOBILITY TO REMOVE (E) STREET LIGHT AND REPLACE WITH NEW CONCEALFAB STREET LIGHT
- AT&T MOBILITY TO INSTALL NEW FOUNDATION
- INSTALL (1) OMNI ANTENNA A TOP NEW POLE MOUNTED SHROUD
- INSTALL (3) 5G ANTENNAS
- INSTALL (2) NEW RADIO 4402 MOUNTED WITHIN NEW SHROUD
- INSTALL (1) NEW FUTURE RADIO MOUNTED WITHIN NEW SHROUD
- INSTALL (2) NEW 17"x30"x18" PULL BOXES
- INSTALL (1) NEW DISCONNECT SWITCH WITH INTEGRATED SURGE PROTECTION WITHIN PULL BOX
- INSTALL (1) 2" AT&T MOBILITY FIBER CONDUIT FROM FIBER PULL BOX TO SITE POLE
- TRENCH FOR POWER FROM PULL BOX TO SITE POLE
- TRENCH FOR FIBER FROM PULL BOX TO SITE POLE

**PROJECT DESCRIPTION**

SHEET	DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES, LEGEND AND ABBREVIATIONS
A-1	SITE PLAN
A-2	ENLARGED SITE PLAN
A-3	NEW AND EXISTING SOUTH ELEVATIONS
A-4	NEW AND EXISTING EAST ELEVATIONS
A-5	SITE IMAGE
A-6	EQUIPMENT DETAILS
A-7	CONSTRUCTION DETAILS
E-1	ELECTRICAL AND GROUNDING DETAILS
UD-1	SCE FINAL POWER DESIGN
UD-2	SCE FINAL POWER DESIGN
TCP-1	TRAFFIC CONTROL PLAN
TCP-2	TRAFFIC CONTROL PLAN
TCP-3	TRAFFIC CONTROL PLAN
TCP-4	TRAFFIC CONTROL PLAN

**SHEET INDEX**

SUBCONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

**DO NOT SCALE DRAWINGS**

APPLICANT:

1452 EDINGER AVE.  
 TUSTIN, CA 92780

ENGINEER:

an SFC Communications, Inc. Company  
 65 POST, SUITE 1000  
 IRVINE, CA 92618  
 TEL: (949) 553-8566  
 www.eukongroup.com

CHECKED BY A&E: FE  
 CHECKED BY OSP: AJ

**REVISIONS:**

REV	DATE	DESCRIPTION	BY
4	08/02/21	CITY COMMENTS	AS
3	06/08/21	FINAL POWER	MG
2	03/08/21	EQUIPMENT CHANGE PER ATT	MP
1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	RAC

LICENSER:

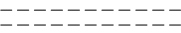
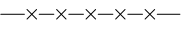




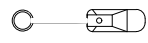
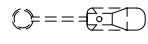













EXPIRATION DATE: 12-31-22  
 DATE SIGNED: 10-25-19

**PROJECT INFORMATION:**

LDRAH - 005A  
 5770 UPLANDER WAY  
 CULVER CITY, CA 90230

SHEET TITLE:  
**TITLE SHEET**

SHEET NUMBER:  
**T-1**

SYMBOL	DESCRIPTION
EOD	EDGE OF DIRT
W/L	WHITE LINE
ROW	RIGHT OF WAY
EOP	EDGE OF PAVEMENT
C/L	CENTER LINE
C/F	CURBSFACE
P/L	PROPERTY LINE
	EXISTING CUT
	FENCE
	WALL
	DRIVEWAY
	BUSHES
	TREE
	STREET LIGHT SITE POLE
	STREET LIGHT EXISTING
	JPA SITE POLE
	UTILITY POLE EXISTING
	PARKING METER/STREET SIGN
	DOWN GUY
	FIRE HYDRANT
	UTILITY VALVE
	UTILITY MANHOLE
	SEWER MANHOLE
	SQUARE VENT
	ROUND VENT
	DIG-ALERTS
	(POC) POINT OF CURBSFACE
	ADA CURB RAMP

LEGEND AND ABBREVIATIONS

INTENT
<ol style="list-style-type: none"> <li>THESE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE DONE &amp; THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.</li> <li>THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.</li> <li>THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.</li> <li>MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.</li> </ol>
CONFLICTS
<ol style="list-style-type: none"> <li>THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED IN THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSIONS WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.</li> <li>THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING WHICH SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.</li> <li>NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.</li> </ol>
WARRANTIES & BONDS
<ol style="list-style-type: none"> <li>CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.</li> <li>SEE MASTER CONTRACTOR SERVICES AGREEMENT FOR ADDITIONAL DETAILS.</li> </ol>
STORAGE
<ol style="list-style-type: none"> <li>ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK.</li> <li>BTS CABINETS MUST BE STORED INSIDE UNTIL THERE IS POWER ON SITE.</li> <li>STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.</li> </ol>
RELATED DOCUMENTS AND COORDINATION
<ol style="list-style-type: none"> <li>GENERAL CONSTRUCTION, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.</li> </ol>
CHANGE ORDER PROCEDURE
<ol style="list-style-type: none"> <li>CHANGE ORDERS MAY BE INITIATED BY THE OWNER AND/OR THE CONTRACTOR INVOLVED. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE OWNER SHALL PREPARE A WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT TO THE OWNER WITHIN 72 HRS FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES IN THE SCOPE OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED &amp; APPROVED BY THE OWNER SHALL PLACE FULL RESPONSIBILITY OF THESE ACTIONS ON THE CONTRACTOR.</li> </ol>
SHOP DRAWINGS
<ol style="list-style-type: none"> <li>CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE DRAWINGS TO THE OWNER FOR APPROVAL.</li> <li>ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.</li> </ol>

1 GENERAL NOTES

GENERAL NOTES AND CONDITIONS
PRODUCTS & SUBSTITUTIONS
<ol style="list-style-type: none"> <li>SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.</li> <li>SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS &amp; MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.</li> </ol>
CODE COMPLIANCE
<ol style="list-style-type: none"> <li>ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE BUT NOT BE LIMITED TO THE LATEST VERSION OF THE FOLLOWING: <ul style="list-style-type: none"> <li>2019 CALIFORNIA ENERGY CODE</li> <li>2019 CALIFORNIA BUILDING CODE</li> <li>2019 CALIFORNIA ELECTRICAL CODE</li> <li>2019 CALIFORNIA FIRE CODE</li> <li>2019 CALIFORNIA GREEN BUILDING CODE</li> <li>2019 CALIFORNIA MECHANICAL CODE</li> <li>2019 CALIFORNIA PLUMBING CODE</li> <li>GO95/GO128</li> </ul> </li> </ol>
INSURANCE AND BONDS
<ol style="list-style-type: none"> <li>CONTRACTOR SHALL AT THEIR OWN EXPENSE CARRY AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL INSURANCE AS REQUIRED AND LISTED.</li> <li>CONTRACTOR SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER.</li> <li>THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.</li> <li>REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.</li> </ol>
ADMINISTRATION
<ol style="list-style-type: none"> <li>BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL BE DEVELOPING A MASTER SCHEDULE FOR THE PROJECT WHICH WILL SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.</li> <li>SUBMIT A BAR TYPE PROGRESS CHART NOT MORE THAN THREE (3) DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OF WORK TO BE PERFORMED AT THE SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK &amp; SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE SITE.</li> <li>PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE (THOUGH NOT LIMITED TO) THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).</li> <li>CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.</li> <li>DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL AT&amp;T MOBILITY SAFETY REQUIREMENTS IN THEIR AGREEMENT.</li> <li>PROVIDE WRITTEN DAILY UPDATES AND PHOTOGRAPHS OF ON SITE PROGRESS TO THE PROJECT MANAGER VIA E-MAIL.</li> <li>A COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.</li> <li>NOTIFY THE OWNER / PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.</li> <li>CLOSEOUT PACKAGE IS DUE COMPLETE WITH DETAILED TOP PHOTOS UPON SITE PUNCHWALK WITH PROJECT MANAGER (SEE PROJECT MANAGER FOR SAMPLE CLOSEOUT PACKAGE).</li> </ol>
CLEAN UP
<ol style="list-style-type: none"> <li>THE CONTRACTOR SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK. AT THE COMPLETION OF THE WORK, THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY FOR USE.</li> <li>VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES &amp; OTHER FOREIGN MATTER.</li> <li>REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.</li> <li>IF NECESSARY TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.</li> </ol>

2


GENERAL NOTES:
<ol style="list-style-type: none"> <li>INDEMNIFICATION CLAUSE: THE CONTRACTOR AGREES AND SHALL: <ul style="list-style-type: none"> <li>ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THAT THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNITY AND HOLD AT&amp;T MOBILITY, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.</li> <li>PRIOR TO THE BEGINNING OF ANY CONSTRUCTION AND THROUGHOUT THE COURSE OF CONSTRUCTION WORK, THE CONTRACTOR SHALL FULLY COMPLY WITH "CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH" ACT OF 1973 INCLUDING ALL REVISIONS AND AMENDMENTS THERETO.</li> <li>ALL WORK SHALL CONFORM TO THE LATEST EDITION OF GO 95, 128, AND THE STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", AS ADOPTED BY THE CITY, COUNTY OR STATE AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.</li> <li>THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCIES FACILITIES AS SHOWN HEREON ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST, THE CONTRACTOR SHALL VERIFY PRIOR TO THE START OF CONSTRUCTION AND SHALL USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY OR AGENCY FACILITIES WITHIN THE LIMITS OR WORK, WHETHER THEY ARE SHOWN ON THIS PLAN OR NOT.</li> <li>THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (800) 422-4133, AT LEAST TWO WORKING DAYS PRIOR TO THE START OF ANY EXCAVATION.</li> <li>THE CONTRACTOR SHALL NOTIFY THE CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT AT LEAST TWO DAYS BEFORE THE START OF ANY WORK REQUIRING THEIR INVOLVEMENT.</li> <li>ALL WORK AREA AND STREET TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE WORK AREA TRAFFIC CONTROL BOOK AND SPECIFICATIONS FROM THE CITY, COUNTY OR STATE.</li> <li>THE CITY, COUNTY OR STATE SHALL SPECIFY THE EXPIRATION PERIOD OF THE PERMIT FOR THIS CONSTRUCTION PROJECT.</li> <li>THE MINIMUM COVER FOR ALL CONDUITS PLACED UNDERGROUND SHALL BE 36 INCHES TO THE FINISHED GRADE AT ALL TIMES.</li> <li>THE CONTRACTOR SHALL HDD OR OPEN TRENCH ALL CURB AND GUTTERS, CONCRETE DRIVEWAYS AND WALKWAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE INSPECTOR.</li> <li>ALL AC, AND/OR CONCRETE PAVEMENT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEERS.</li> <li>ALL SHRUBS, PLANTS OR TREES THAT HAVE BEEN DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK, SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.</li> <li>IF DAMAGE OCCURS TO THE CITY OR COUNTY FACILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY, TRAFFIC CONTROL LIGHTING AND STREET LIGHTING</li> <li>AT LEAST TWO DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK, NOTIFY THE POLICE TRAFFIC BUREAU AND THE FIRE DEPARTMENT;</li> <li>THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROCESSING OF ALL APPLICATION PERMIT FORMS ALONG WITH THE REQUIRED LIABILITY INSURANCE FORMS, CLEARLY DEMONSTRATING THAT THE CLIENT, THE CITY, COUNTY OR STATE AS ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE IN THE AMOUNT OF \$ 1,000,000.00 FOR THIS CONSTRUCTION PROJECT.</li> <li>VAULTS, PEDESTALS, CONDUITS AND OTHER TYPES OF SUBSTRUCTURE ARE EITHER SPECIFIED ON THIS PLAN OR WILL BE SPECIFIED BY THE CONSTRUCTION ENGINEER. ANY AND ALL DEVIATIONS FROM THE SPECIFIED TYPES OF MATERIAL MUST BE APPROVED BY THE SYSTEM ENGINEER, IN WRITING BEFORE INSTALLATION THEREOF.</li> <li>ALL U.G. CONDUIT MUST BE SCHEDULE 40 OR BETTER.</li> <li>CONDUIT REQUIREMENTS: <ul style="list-style-type: none"> <li>UG-SCHEDULE 40 EXCEPT ALL RADIUS CONDUITS TO BE SCH. 80 RISERS-SCHEDULE 80.</li> </ul> </li> <li>GROUND REQUIREMENTS: <ul style="list-style-type: none"> <li>5/8" ROD-10' LENGTH</li> <li>#2 GROUND WIRE</li> <li>WOOD MOLDING, STAPLED EVERY 3' AND AT EACH END GROUNDS 2' FROM POLE.</li> </ul> </li> <li>POWER REQUIREMENT FOR 3 WIRE SERVICE 120/240V.</li> <li>CONTRACTOR SHALL NOTIFY POWER &amp; TELCO COMPANIES THREE DAYS PRIOR TO START OF CONSTRUCTION FOR CONDUIT INSPECTION.</li> <li>ANY AND ALL PROPOSED SITE MODIFICATIONS, EXPANSION, OR REARRANGEMENT OF THIS CELLULAR SITE MUST BE COMPLIANT WITH ALL GO 95, AND GO 128 REGULATIONS AS PRESCRIBED BY STATE LAW. FUTURE EXPANSION OF THIS CELLULAR SITE MUST BE APPROVED BY THE DESIGNING ENGINEERING FIRM OR AN EQUALLY QUALIFIED ENGINEERING COMPANY.</li> </ul> </li> </ol>

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:




an SFC Communications, Inc. Company

65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

CHECKED BY A&E:	FE
CHECKED BY OSP:	AJ

REVISIONS:			
REV	DATE	DESCRIPTION	BY
4	08/02/21	CITY COMMENTS	AS
3	06/08/21	FINAL POWER	MG
2	03/08/21	EQUIPMENT CHANGE PER ATT	MP
1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	RAC

LICENSER:



76549  
CIVIL  
STATE OF CALIFORNIA

EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

PROJECT INFORMATION:

Ldrah - 005A

5770 UPLANDER WAY  
CULVER CITY, CA 90230

SHEET TITLE:

GENERAL NOTES, LEGEND AND ABBREVIATIONS

SHEET NUMBER:

T-2

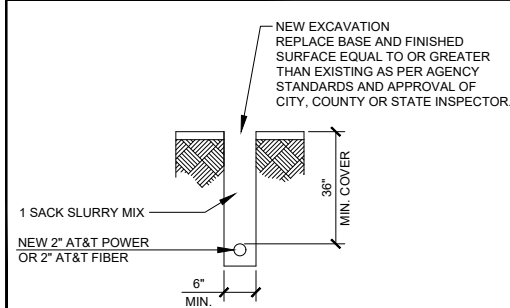


- NOTES:**
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPERTY OWNER & NECESSARY UTILITY COMPANIES FOR THE LOCATION OF ALL EXISTING BELOW GRADE UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE COSTS ASSOCIATED WITH EXISTING BELOW GRADE UTILITIES.
  - CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.
  - CONTRACTOR TO VERIFY LOCAL UTILITY REQUIREMENTS FOR DEPTH, SIZE & SEPARATION OF CONDUITS PRIOR TO INSTALLATION. NOTIFY CONSTRUCTION MANAGER IMMEDIATELY OF ANY DISCREPANCIES.
  - CONTRACTOR TO CALL DIG ALERT (800)-227-2600 A MINIMUM OF 48 HRS PRIOR TO EXCAVATING FOR UNDERGROUND UTILITY LOCATIONS. CONTRACTOR IS RESPONSIBLE TO HAVE ALL NONPUBLIC UTILITIES LOCATED AT THEIR OWN EXPENSE.
  - NEW UTILITY SERVICES SHOWN NEED TO BE VERIFIED & APPROVED BY UTILITY COMPANIES BEFORE START OF CONSTRUCTION. CONTRACTOR TO VERIFY WITH CLIENT PROJECT MANAGER TO OBTAIN FINAL APPROVAL.
  - LINES SHOWN DO NOT REPRESENT THE EXACT LOCATION OF THE CONDUIT RUNS CONTRACTOR TO VERIFY SERVICE LOCATIONS w/ACTUAL FIELD CONDITIONS.
  - CONTRACTOR SHALL IMMEDIATELY INFORM CLIENT OF ANY ACCIDENTAL DAMAGE TO EXISTING UTILITIES BY TELEPHONE AND E-MAIL REGARDLESS OF ABILITY TO REPAIR OR MITIGATE. A FOLLOW-UP E-MAIL REPORT WITH DIGITAL PHOTOS WILL BE REQUIRED DAILY UNTIL RESOLUTION HAS BEEN ACCEPTED BY CLIENT AND AFFECTED SERVICE PROVIDERS AND RECIPIENTS. AT THEIR OWN EXPENSE, CONTRACTOR WILL EXERCISE ALL EFFORTS TO HAVE REPAIRS MADE BY QUALIFIED TECHNICIANS AS APPROVED BY SERVICE PROVIDER.

**NOTE TO CONTRACTOR:**  
CONCRETE SIDEWALKS SHALL BE SAWCUT TO THE NEAREST SCORE MARK AND BE REPLACED EQUAL IN DIMENSION TO THAT REMOVED.

**NOTE:**  
CONTRACTOR TO ALLOW INGRESS AND EGRESS TO DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.

**NOTE:**  
PUBLIC SIDEWALK SHALL ALWAYS BE OPEN AND ACCESSIBLE TO PEDESTRIANS.



**UNDERGROUND UTILITIES NOTE:**  
THE LOCATIONS AND EXISTENCE OF ANY UNDERGROUND PIPES, STRUCTURES OR CONDUITS SHOWN ON THIS PLAN WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THERE MAY BE EXISTING UTILITIES OTHER THAN THOSE SHOWN ON THIS PLAN. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT SHOWN ON THIS PLAN.

**UTILITY LINETYPE LEGEND:**

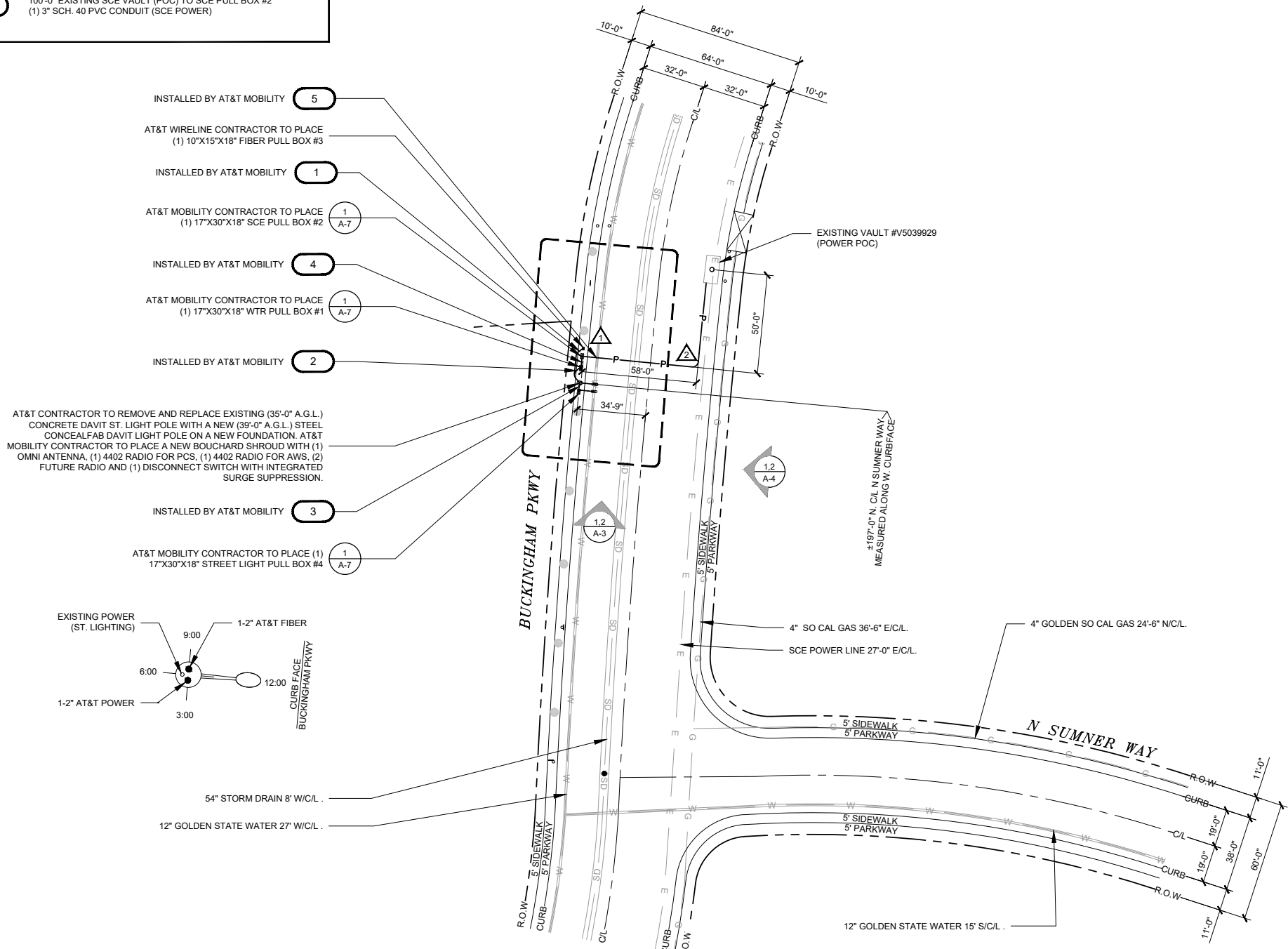
POWER	— E —
PHONE	— T —
WATER	— W —
SEWER	— S —
STORM DRAIN	— SD —
GAS	— G —
GASOLINE	— GS —
OIL	— O —

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN CALIFORNIA (SOUTH), CALL DIG ALERT  
TOLL FREE: 1-800-422-4133 OR  
www.digalert.org  
CALIFORNIA STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

**Know what's below. Call before you dig.**

NEW ITEM #	DESCRIPTION
1	19'-0" FIBER PULL BOX #3 TO SITE POLE (1) 2" SCH. 40 PVC CONDUIT (AT&T FIBER)
2	9'-0" (WTR/FBS) PULL BOX #1 TO SITE POLE (1) 2" SCH. 40 PVC CONDUIT (AT&T POWER)
3	3'-6" STREET LIGHT PULL BOX #2 TO SITE POLE (1) 1.5" SCH. 40 PVC CONDUIT (STREET LIGHT POWER)
4	3'-6" SCE PULL BOX #2 TO (WTR/FBS) PULL BOX #1 (1) 3" SCH. 40 PVC CONDUIT (SCE POWER)
5	100'-0" EXISTING SCE VAULT (POC) TO SCE PULL BOX #2 (1) 3" SCH. 40 PVC CONDUIT (SCE POWER)

HANDHOLE #	PULL BOX SIZE	LOCATION
P PULL BOX 1	17"x30"x18" (WTR/FBS) PULL BOX	208'-0"± N. C.I.L N SUMNER WAY & 34'-9"± W. C.I.L BUCKINGHAM PKWY
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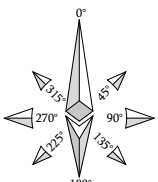
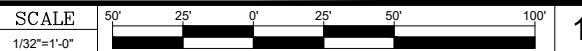


**CONDUIT CURVE DATA**

ANGLE	RADIUS	LENGTH
45°	3'-0"	2'-4"
92°	3'-0"	4'-9"

**CITY PERMIT INFORMATION**

HDD / OPEN TRENCH A/C STREET FOOTAGE:	98'-0"
HDD / OPEN TRENCH CONC. PARKWAY FOOTAGE:	15'-6"
HDD / OPEN TRENCH GRASS/DIRT PARKWAY FOOTAGE:	13'-6"
HDD / OPEN TRENCH TOTAL PROJECT FOOTAGE:	127'-0"



APPLICANT:

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ENGINEER:

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IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

CHECKED BY A&E:	FE
CHECKED BY OSP:	AJ

**REVISIONS:**

REV	DATE	DESCRIPTION	BY
4	08/02/21	CITY COMMENTS	AS
3	06/08/21	FINAL POWER	MG
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1	10/23/19	FOUNDATION UPDATE	JG
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A	07/30/19	90% CONSTRUCTION DWG	RAC

LICENSER:

EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRH - 005A  
5770 UPLANDER WAY  
CULVER CITY, CA 90230

SHEET TITLE:  
SITE PLAN

SHEET NUMBER:  
A-1



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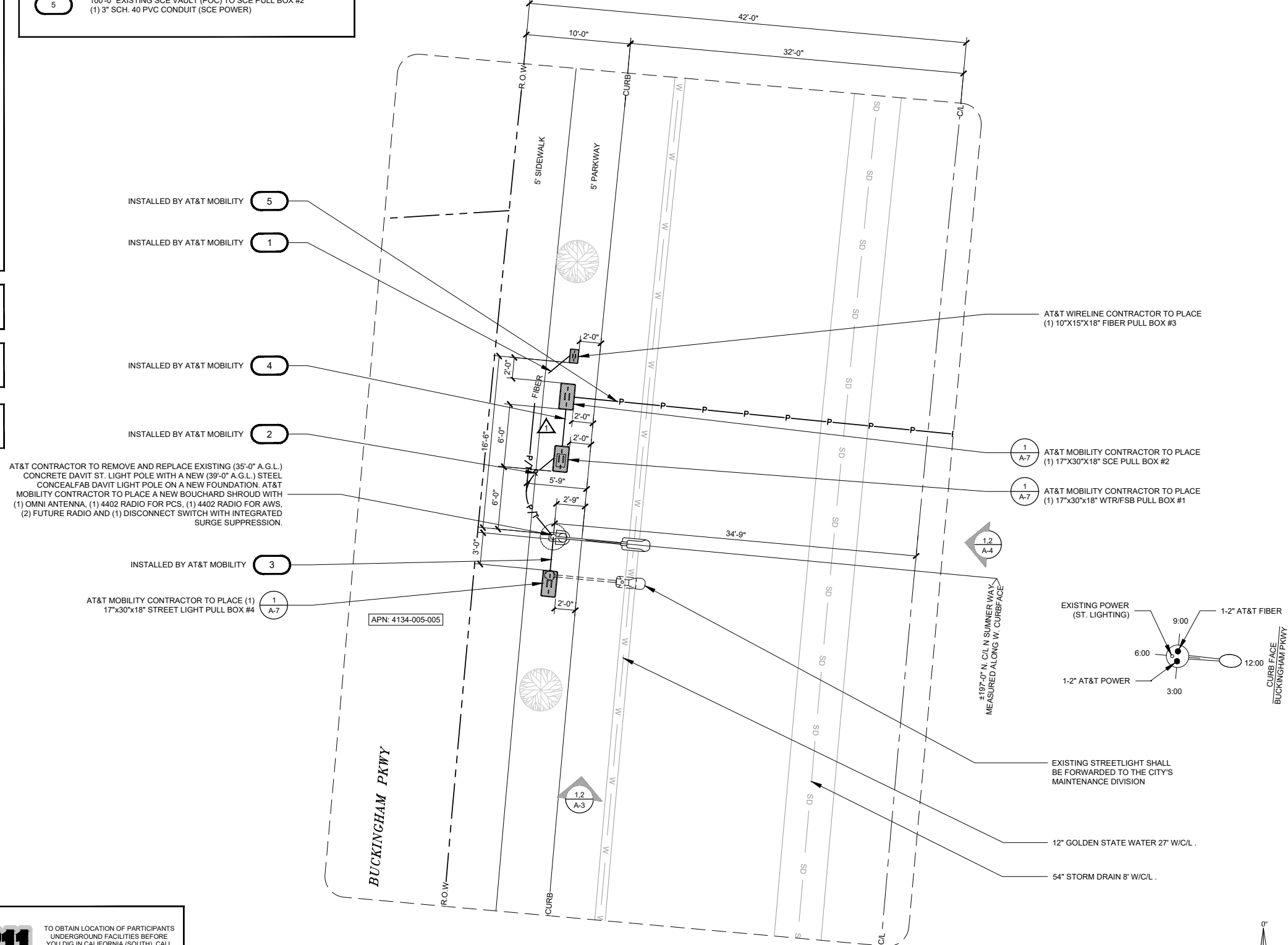
POWER	—	E	—
PHONE	—	T	—
WATER	—	W	—
SEWER	—	S	—
STORM DRAIN	—	SD	—
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GASOLINE	—	GS	—
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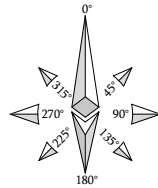
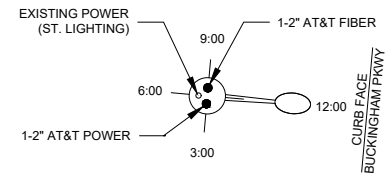
NEW ITEM #	DESCRIPTION
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2	9'-0" (WTR/FSB) PULL BOX #1 TO SITE POLE (1) 2" SCH. 40 PVC CONDUIT (AT&T POWER)
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NEW HANDHOLE LOCATION		
HANDHOLE #	PULL BOX SIZE	LOCATION
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**CONDUIT CURVE DATA**

ANGLE	RADIUS	LENGTH
90°	3'-0"	4'-8"



APPLICANT:

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TUSTIN, CA 92780

ENGINEER:

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www.eukongroup.com

CHECKED BY A&E: FE  
CHECKED BY OSP: AJ

**REVISIONS:**

REV	DATE	DESCRIPTION	BY
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3	06/08/21	FINAL POWER	MG
2	03/08/21	EQUIPMENT CHANGE PER ATT	MP
1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	RAC

LICENSER:

EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRAH - 005A  
5770 UPLANDER WAY  
CULVER CITY, CA 90230

SHEET TITLE:  
ENLARGED SITE PLAN

SHEET NUMBER:  
A-2

**NOTES:**  
 1. SCE WILL INSTALL A NEW REINFORCED FOUNDATION AND WILL RELOCATE EXISTING STREET LIGHT POLE TO THE RIGHT OR LEFT SIDE (SCE TO DETERMINE WHICH SIDE) WITHIN A MAXIMUM DISTANCE OF 10'-FT.


**NOTES:**  
 1. ALL NEWLY INSTALLED EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING POLE AND OR SURROUNDINGS UNLESS PROHIBITED PER MANUFACTURER REQUIREMENTS.

APPLICANT:



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ENGINEER:




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LICENSER:



76549  
 CIVIL  
 STATE OF CALIFORNIA

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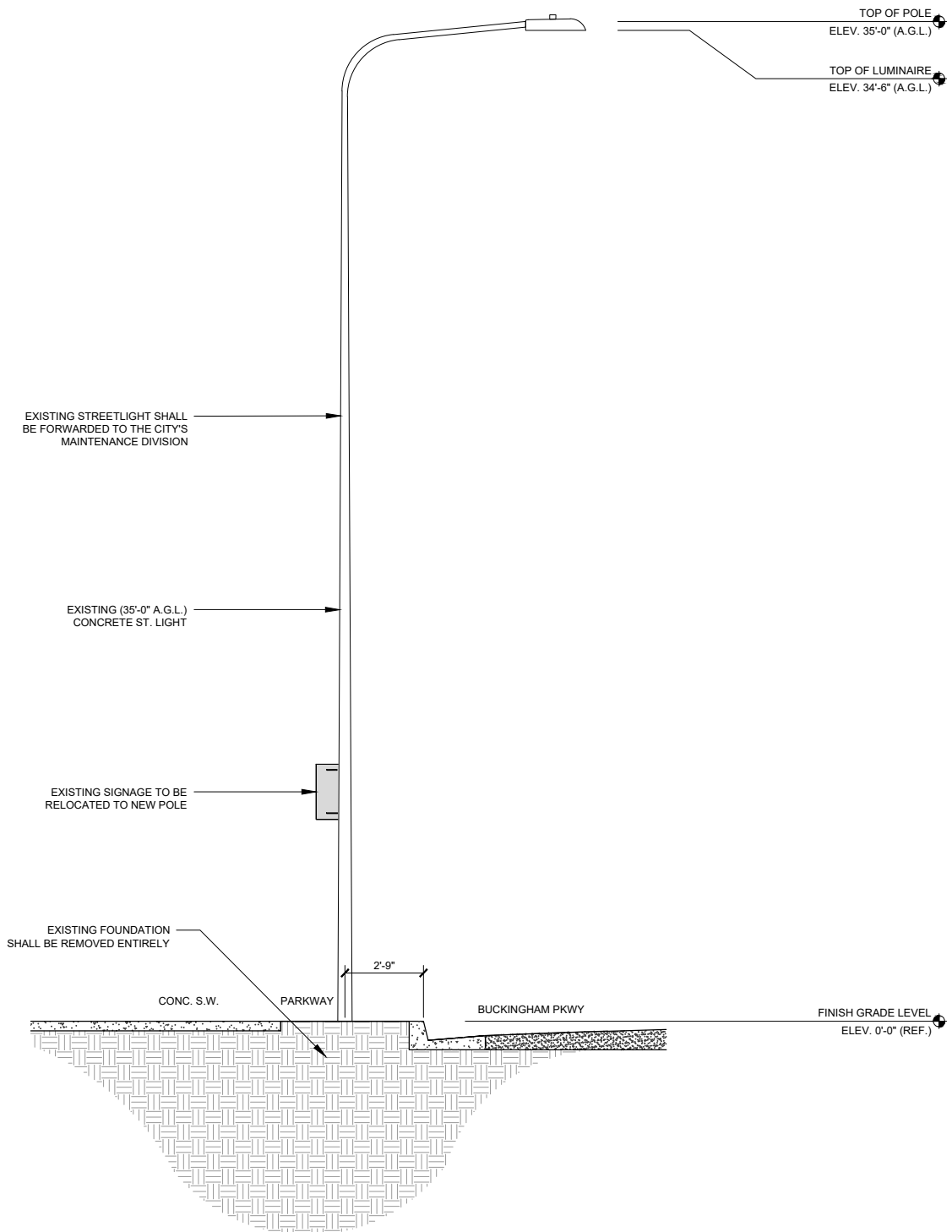
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 CULVER CITY, CA 90230

SHEET TITLE:

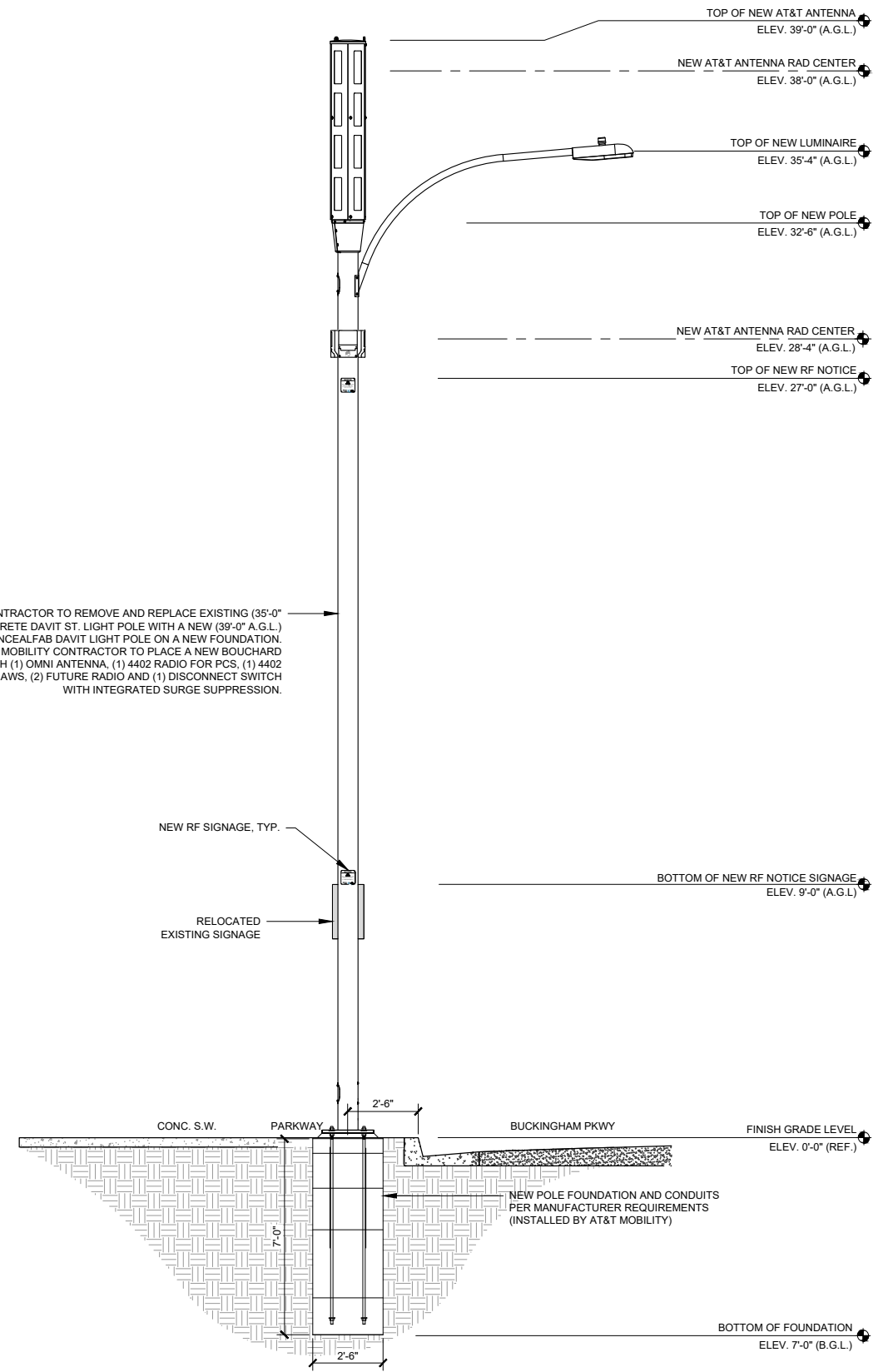
NEW AND EXISTING  
 SOUTH ELEVATIONS

SHEET NUMBER:

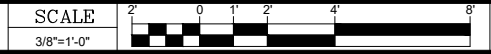
A-3



AT&T CONTRACTOR TO REMOVE AND REPLACE EXISTING (35'-0" A.G.L.) CONCRETE DAVIT ST. LIGHT POLE WITH A NEW (39'-0" A.G.L.) STEEL CONCEALFAB DAVIT LIGHT POLE ON A NEW FOUNDATION.  
 AT&T MOBILITY CONTRACTOR TO PLACE A NEW BOUCHARD SHROUD WITH (1) OMNI ANTENNA, (1) 4402 RADIO FOR PCS, (1) 4402 RADIO FOR AWS, (2) FUTURE RADIO AND (1) DISCONNECT SWITCH WITH INTEGRATED SURGE SUPPRESSION.



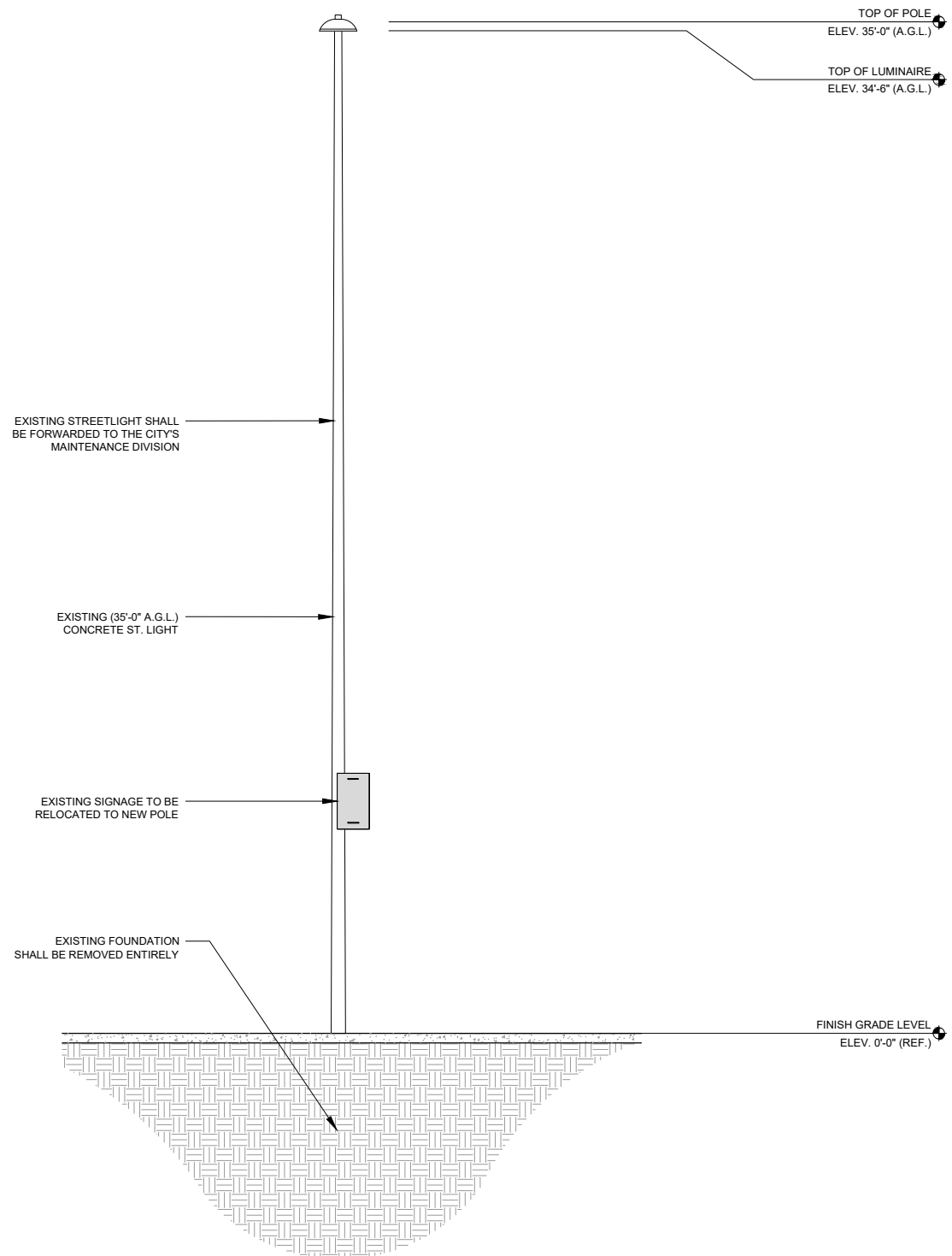
EXISTING SOUTH ELEVATION



NEW SOUTH ELEVATION



**NOTES:**  
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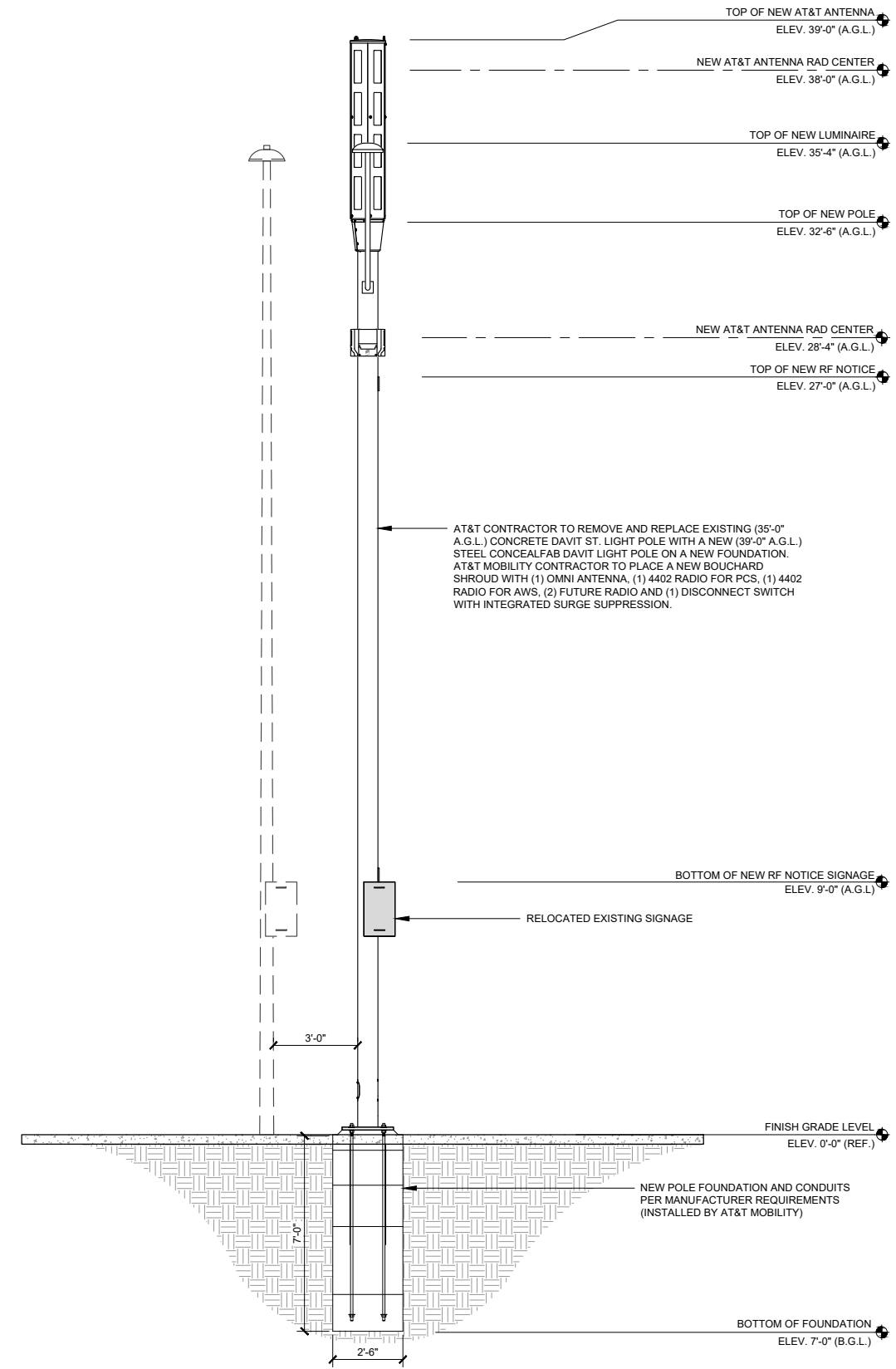


EXISTING EAST ELEVATION



1

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NEW EAST ELEVATION



2

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ENGINEER:

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PROJECT INFORMATION:

LDRAH - 005A  
 5770 UPLANDER WAY  
 CULVER CITY, CA 90230

SHEET TITLE:

NEW AND EXISTING  
 EAST ELEVATIONS

SHEET NUMBER:

A-4





EXISTING CONCRETE STREET LIGHT POLE TO BE REMOVED AND REPLACED WITH NEW AMERON CONCRETE LIGHT BY AT&T

SITE LOCATION NORTHEAST VIEW

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:




an SFC Communications, Inc. Company  
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1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	RAC

LICENSER:



EXPIRATION DATE: 12-31-22  
DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRAH - 005A  
5770 UPLANDER WAY  
CULVER CITY, CA 90230

SHEET TITLE:

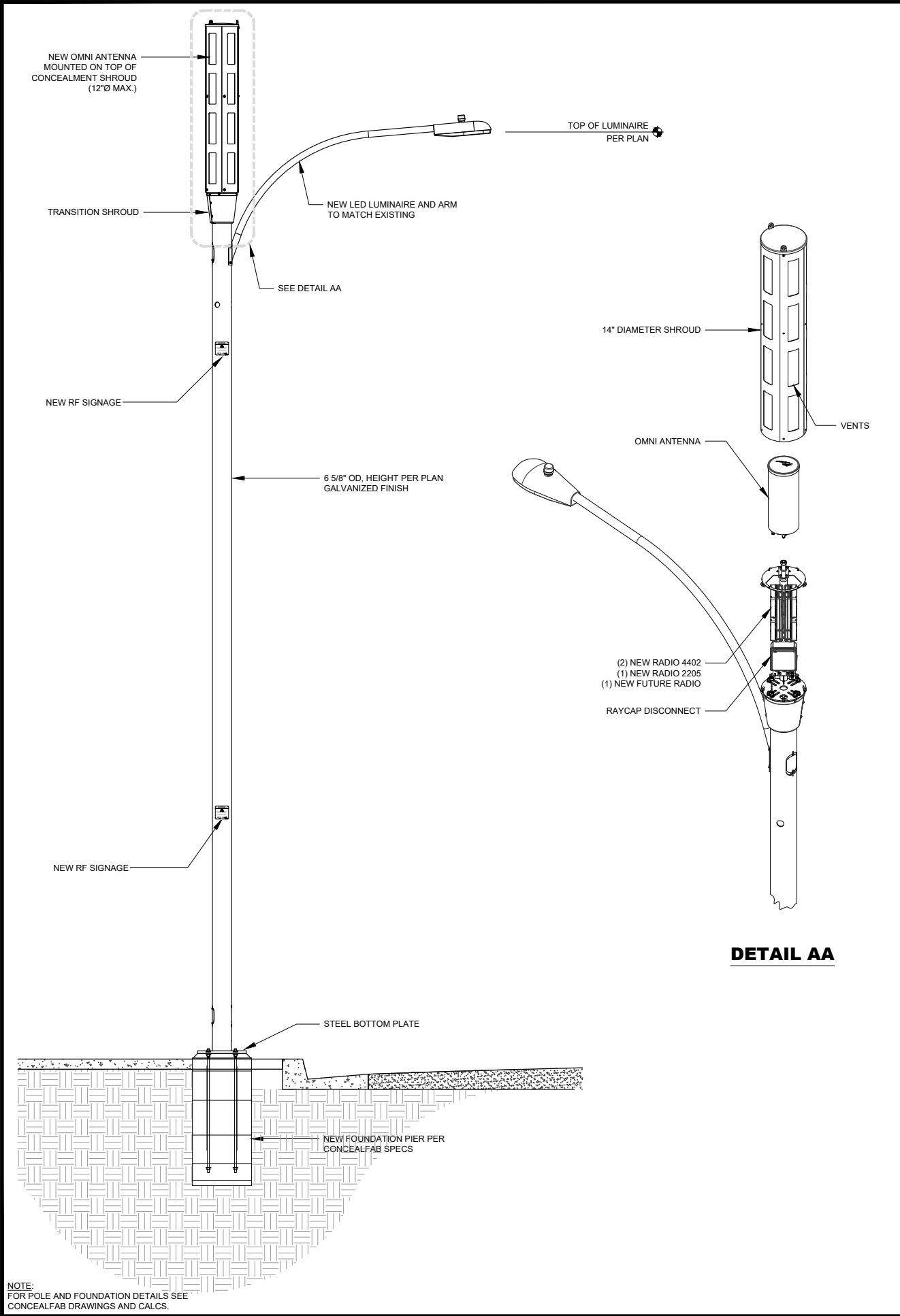
SITE IMAGE

SHEET NUMBER:

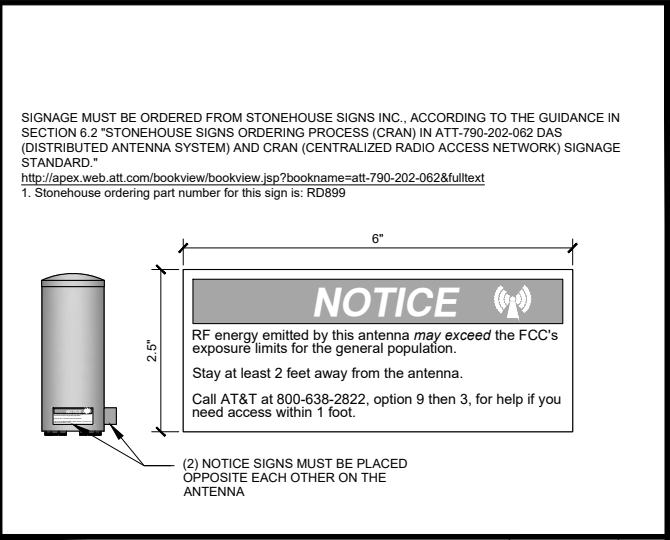
**A-5**

SCALE  
NONE 1





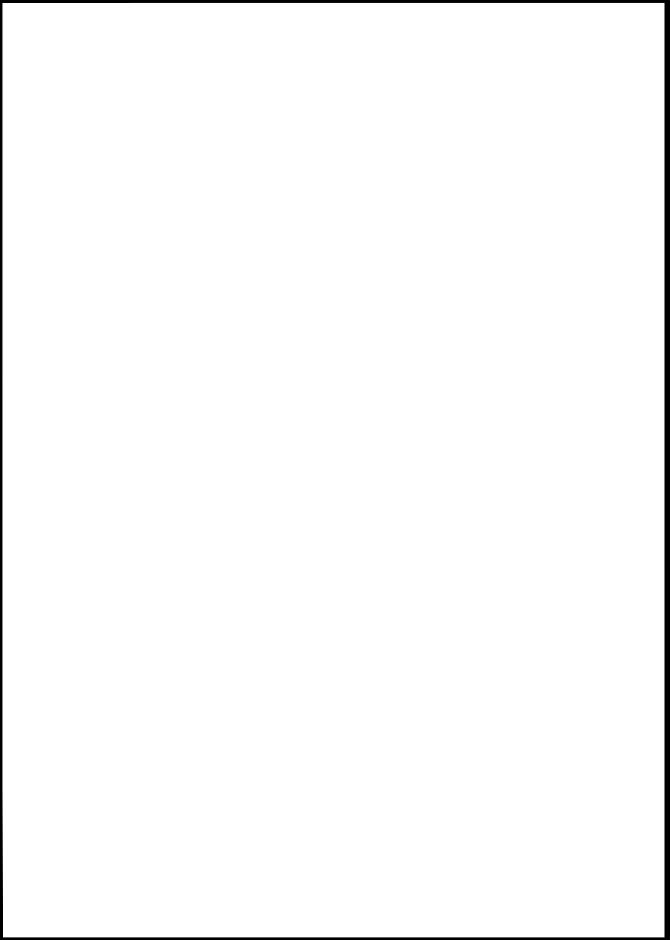
CONCEALFAB POLE SCALE NONE 1



ANTENNA DISCLAIMER LABEL SCALE NONE 2



NOT USED SCALE NONE 3



NOT USED SCALE NONE 5

### GAMMA NU - QOYZ9X360F14T(x) ANTENNA

**MECHANICAL**

DIMENSIONS (HEIGHTxDIAMETER): 23.6 x 9.4 INCHES (600 x 240 mm)

WEIGHT EXCL MOUNTING BRACKETS: 17.6lbs (8 kg)

NO. OF CONNECTORS: 14 X 4.3-10 (F)

CONNECTOR TYPE & FREQUENCY BAND [MHz]:  
 1850-1990/1695-2400/3550-3700/5150-5925

4 X 4.3-10 (F) (1850-1990) MHz  
 4 X 4.3-10 (F) (1695-2400) MHz  
 4 X 4.3-10 (F) (3550-3700) MHz  
 2 X 4.3-10 (F) (5150-5950) MHz

SURVIVAL WIND SPEED: 150 mph

FRONT: 23.6" height, 9.4" diameter

BOTTOM: 9.4" diameter

GAMMA NU-QOYZ9X360F14T(x) ANTENNA SCALE NONE 4

### ERICSSON - RADIO 4402

**MECHANICAL SPECIFICATIONS**

DIMENSIONS (WxDxH): 7.9"x4.2"x8.4", INCLUDING MOUNTING BRACKET AND ESTHETIC FRONT COVER

VOLUME AND WEIGHT: 4 LITRES AND < 4.7 kg (10.3 lbs)

MOUNTING: WALL AND POLE MOUNT

**INTERFACE SPECIFICATIONS:**

ANTENNA PORTS: NEX10(F)  
 CPRI: 2 x 2.5/5/10 Gbps (EXCHANGEABLE SFP MODULES)

OPTICAL INDICATORS: 6  
 EXTERNAL ALARM: 2  
 FIELD GROUND: 1

FRONT: 7.9" x 8.4"

BACK: 7.9" x 8.4"

SIDE: 4.2" x 8.4"

ISO: 7.9" x 4.2"

**ELECTRICAL SPECIFICATIONS:**

POWER SUPPLY: -48 VDC OR 100-250 VAC

POWER OUTPUT: 146 WATTS MAX

MAX HEAT DISSIPATION: 120 WATTS

MINIMUM AC FUSE RATING: 6 AMP

RADIO 4402 SCALE NONE 6

APPLICANT:

1452 EDINGER AVE.  
 TUSTIN, CA 92780

ENGINEER:

an SFC Communications, Inc. Company

65 POST, SUITE 1000  
 IRVINE, CA 92618  
 TEL: (949) 553-8566  
[www.eukongroup.com](http://www.eukongroup.com)

CHECKED BY A&E: FE  
 CHECKED BY OSP: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
4	08/02/21	CITY COMMENTS	AS
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1	10/23/19	FOUNDATION UPDATE	JG
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LICENSER:

EXPIRATION DATE: 12-31-22  
 DATE SIGNED: 10-25-19

PROJECT INFORMATION:

LDRH - 005A

5770 UPLANDER WAY  
 CULVER CITY, CA 90230

SHEET TITLE:

EQUIPMENT DETAILS

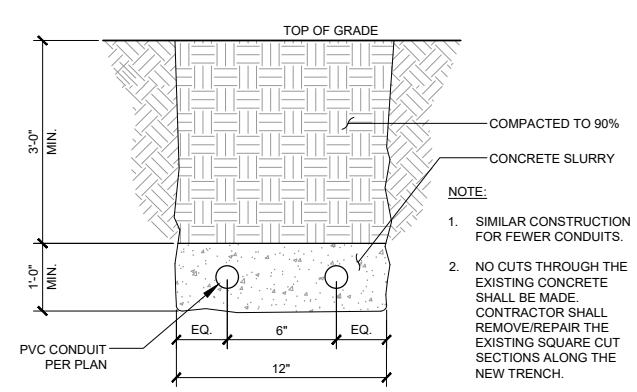
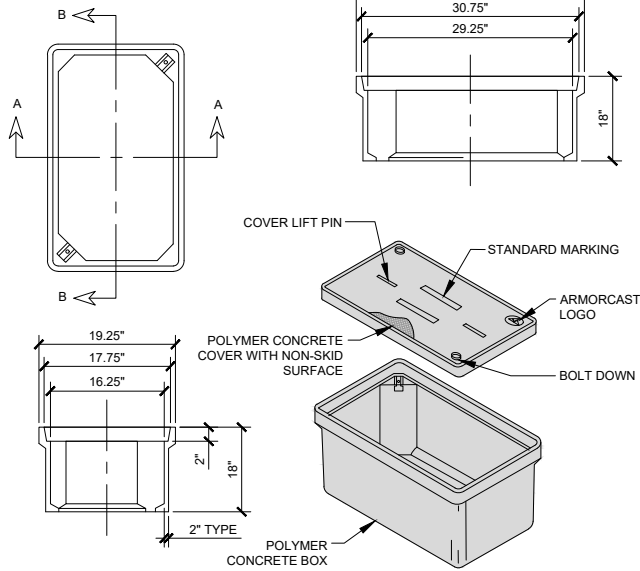
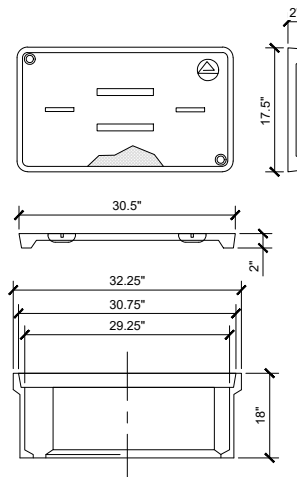
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A-6

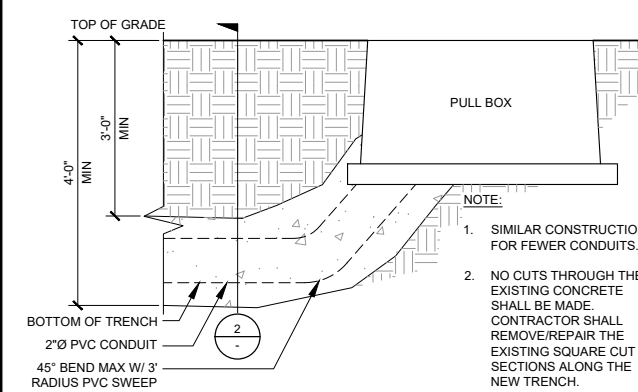
**ARMORCAST - POLYMER CONCRETE 17" x 30" x 18" PULL BOX ASSEMBLY**

**MECHANICAL SPECIFICATIONS**

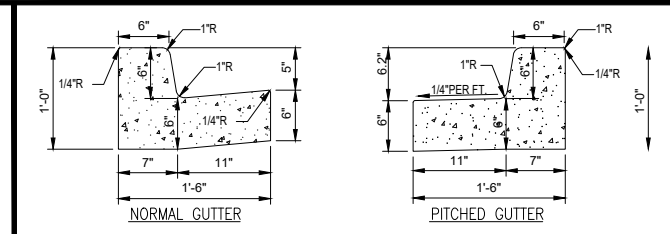
PART NUMBER: A6001640PCX18  
 LID NUMBER: A6001643  
 DIMENSIONS (WxLxD): 17"x30"x18"  
 APPROX. WEIGHT: 140 LB (BOX & COVER)  
 LOAD RATING: 10K  
 ANSI TIER: 8



TRENCH DETAIL SCALE NONE 2



CONDUIT STUB-UP/TRENCH DETAIL SCALE NONE 3



**NOTES:**  
 1. CURB & GUTTER TO BE CONSTRUCTED IN 10 FOOT LENGTHS.  
 2. 1/2" EXPANSION JOINTS SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 50 FEET, AT ENDS & MID POINT OF RETURNS, AND AT ANY POINT WHERE THE NEW CURB & GUTTER ABUTS OTHER CONC. STRUCTURES.  
 3. 5' LONG TRANSITIONS SHALL BE PROVIDED BETWEEN NORMAL GUTTER & PITCHED GUTTER, UNLESS OTHERWISE NOTED ON PLANS.  
 4. PITCHED GUTTER SHALL BE USED AT ALL LOCATIONS WHERE BITUMINOUS PAVEMENT SLOPES AWAY FROM THE GUTTER.

CONCRETE CURB AND GUTTER SCALE NONE 4

HANDHOLE SPECIFICATIONS SCALE NONE 1

NOT USED

SCALE NONE 6

NOT USED

SCALE NONE 7

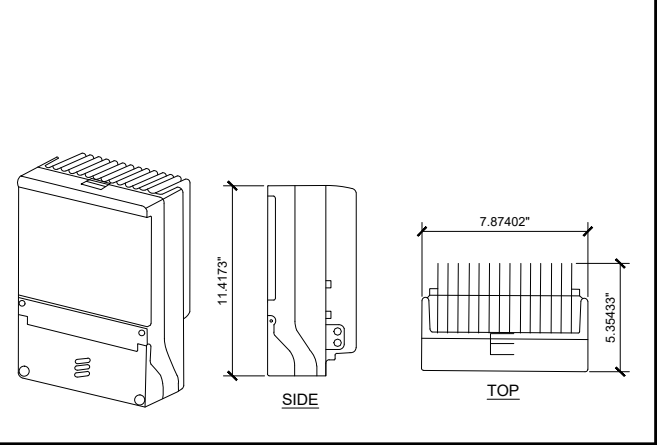
SCALE NONE 8

**AIR 1281-B260-39GHz ANTENNA**  
 ITEM SPECIFICATIONS  
 AIR TECHNOLOGY 5G NR  
 OPERATING FREQUENCY 37GHz-40GHz  
 ANTENNA CONFIGURATION 2T2R/PANEL  
 ANTENNA ELEMENT 128AE/PATH\_256AE/PANEL\_1024AE/OMNI  
 IBW/OBW 1400MHz/400MHz  
 CHANNEL BW/CAPACITY 1000MHz 8CC(HW READY FOR 50/100MHz)  
 EIRP 53/56dBm/PANEL  
 FUNCTION SPLIT OPTION 7-2x(HW READY FOR COMPRESSION)  
 FRONT-HAUL eCPRI 25Gbps x 2 PORTS  
 INPUT VOLTAGE 100-250VAC  
 OPERATING TEMPERATURE -40~+55°C(WITH SOLAR LOAD)  
 COOLING METHOD NATURAL CONVECTION COOLING  
 INSTALLATION POLE, WALL  
 WEIGHT 7.5kg ±5%  
 POWER CONSUMPTION (MAX) TOTAL 525W(3X175W)

NOT USED SCALE NONE 9

NOT USED SCALE NONE 10

NOT USED SCALE NONE 11



AIR 1281-B260-39GHz ANTENNA SCALE NONE 5

NOT USED SCALE NONE 12

NOT USED SCALE NONE 13

NOT USED SCALE NONE 14

APPLICANT:  
  
 1452 EDINGER AVE.  
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ENGINEER:  
  
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 TEL: (949) 553-8566  
[www.eukongroup.com](http://www.eukongroup.com)

CHECKED BY A&E: FE  
 CHECKED BY OSP: AJ

REVISIONS:

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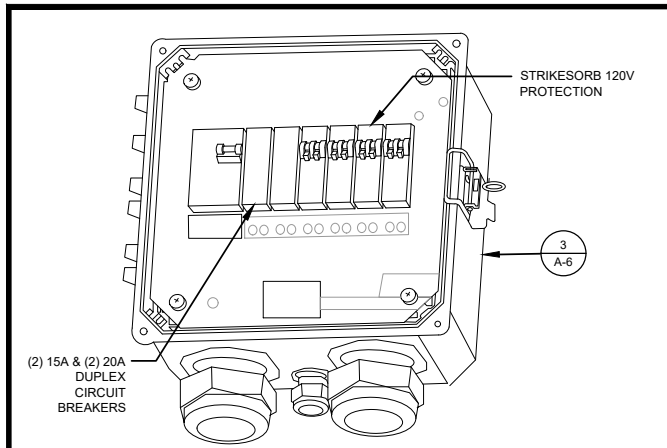
LICENSER:  
  
 EXPIRATION DATE: 12-31-22  
 DATE SIGNED: 10-25-19

PROJECT INFORMATION:  
 LDRAH - 005A  
 5770 UPLANDER WAY  
 CULVER CITY, CA 90230

SHEET TITLE:  
**CONSTRUCTION DETAILS**

SHEET NUMBER:  
**A-7**



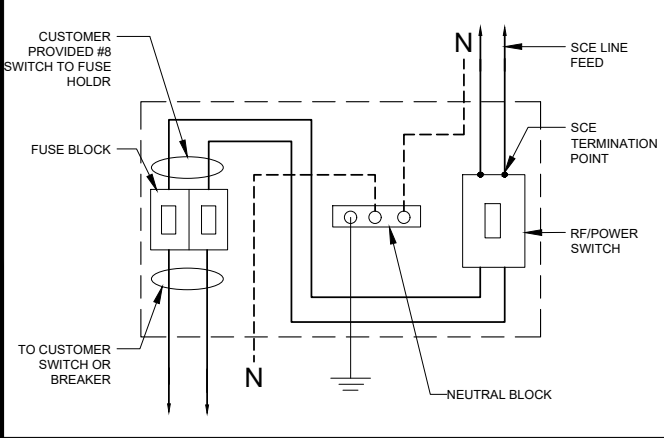


- GROUND BONDS:** ALL BONDS ARE TO BE MADE WITH #6 AWG STRANDED COPPER IN GREEN INSULATION. (ATT-TP-76416 7, 6.7)
- EXTERIOR UNIT BONDS:** ALL METALLIC OBJECTS SHALL BE BONDED TO THE GROUND ROD. (ATT-TP-76416 7, 12.6)
- CONTRACTOR TO SURROUND COMPLETED CONNECTIONS WITH WEATHERPROOFING TAPE OR EQUAL TO.

**BREAKER SCHEDULE** SCALE NONE 1

**GROUNDING NOTES** SCALE NONE 2

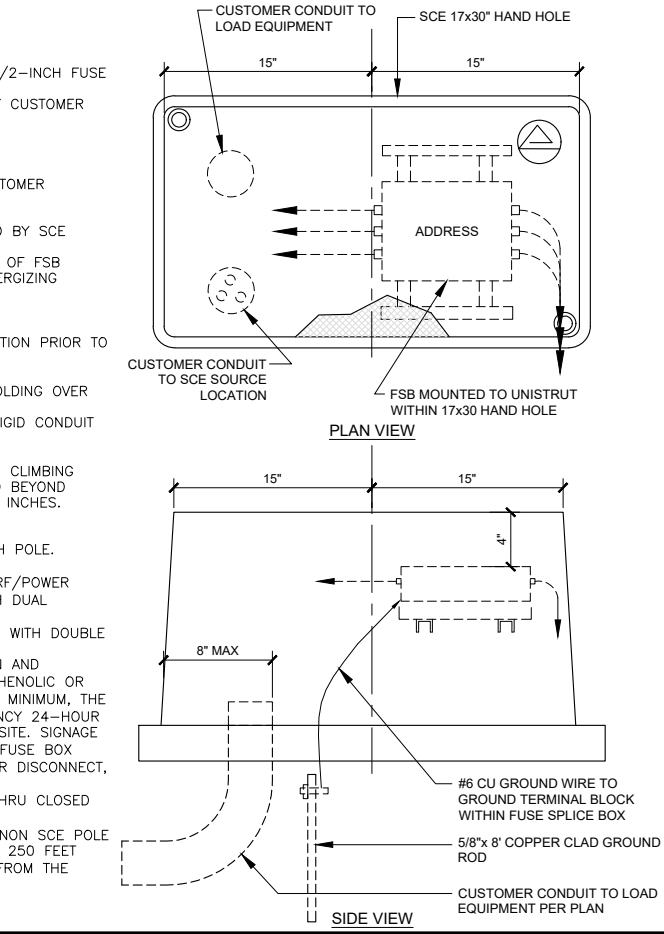
**NOT USED** SCALE NONE 3



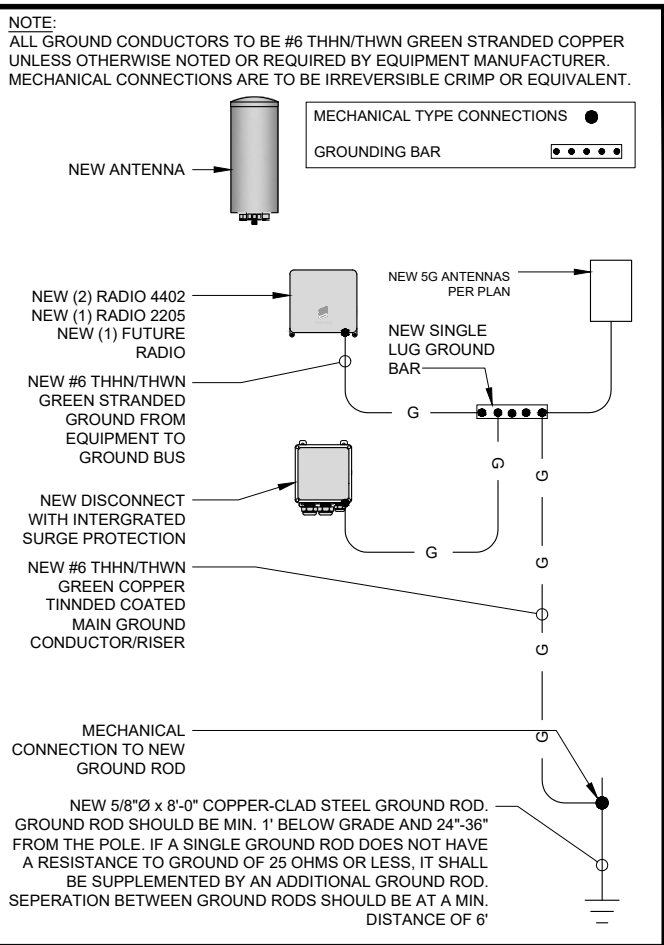
**NOT USED** SCALE NONE 3

**FSB WIRING DIAGRAM** SCALE NONE 4

- CABINET TO INCLUDE:**
- INSIDE PANEL FOR MOUNTING OF:
    - ISOLATION SWITCH
    - FUSEHOLDER--BUSS #BM6032B OR EQUIVALENT TO ACCEPT 13/32-INCH X 1-1/2-INCH FUSE
    - SINGLE-POLE TERMINAL BLOCK FOR NEUTRAL CONDUCTOR TERMINATION
    - ISOLATION SWITCH, FUSE HOLDER, AND NEUTRAL TERMINAL SHALL BE LABELED BY CUSTOMER
- CABINET REQUIREMENTS:**
- NEMA 3R--HINGE COVER, PADLOCKABLE
  - FUSE SPLICE BOX (FSB) SIZE 12" W X 12" H X 6" D
  - FSB TO BE MOUNTED ON POLE BY WAY OF MOUNTING PLATES SUPPLIED BY CUSTOMER
- FUSE REQUIREMENTS:**
- CUSTOMER INSTALLS FUSES AND REPLACEMENT, IF NEEDED, ONCE FSB UNLOCKED BY SCE
  - FUSE RATING TO BE APPROVED BY SCE
  - ONE SPARE SET OF FUSES, SUPPLIED BY CUSTOMER, ARE TO BE PLACED INSIDE OF FSB
  - FUSE RATING TO BE LABELED BY CUSTOMER INSIDE OF FSB DOOR PRIOR TO ENERGIZING SERVICE.
- NOTE(S):**
- CUSTOMER TO NOTIFY SCE FOR APPROVAL OF FUSE SPLICE BOX MOUNTING LOCATION PRIOR TO INSTALLATION.
  - SCE PERSONNEL TO NOTIFY IMS GROUP IF FUSES ARE REPLACED.
  - ARMORED GROUND WIRE OR MINIMUM OF 1/2-INCH RIGID CONDUIT OR WOOD MOLDING OVER GROUND WIRE.
  - GROUND WIRE FROM POLE TO ELECTRODE SHALL BE ENCLOSED IN GALVANIZED RIGID CONDUIT OR EQUIVALENT MECHANICAL PROTECTION.
  - SUBJECT TO LOCAL CODES/ORDINANCES WHERE APPLICABLE.
  - FOR JOINTLY-OWNED POLES, CUSTOMER TO PROVIDE POLE STEPS FOR IDENTIFIED CLIMBING SPACE UP TO CELLULAR ARM LEVEL. SCE TO PROVIDE POLE STEPS AS REQUIRED BEYOND CELLULAR ARM LEVEL. LOWEST LEVEL STEP SHALL NOT BE LESS THAN 7 FEET 6 INCHES. SPACING SHALL NOT EXCEED 36 INCHES.
  - CLIMBING SPACE ON POLE SHALL MEET G.O. 95 REQUIREMENTS.
  - CUSTOMER EQUIPMENT FOR WTR TARIFF IS NOT TO BE INSTALLED ON SCE SWITCH POLE.
  - THIS STANDARD APPLICABLE TO WTR TARIFF ONLY.
  - SCE CREW TO LOCK FSB WITH #203 LOCK AFTER SERVICE IS ENERGIZED THRU RF/POWER SWITCH TO OPEN CUSTOMER SCE EMERGENCY RF/POWER SHUT-OFF SWITCH WITH DUAL LOCKING DEVICE TO ALLOW SCE ACCESS.
  - OPTIONAL LOCATION OF CUSTOMER'S EMERGENCY RF/POWER DISCONNECT SWITCH, WITH DOUBLE LOCKING DEVICE.
  - CELL CARRIERS SHALL INSTALL A SIGN OR DECAL MADE OF WEATHER, CORROSION AND ULTRAVIOLET (UV) RESISTANT MATERIALS (E.G., MACHINE-ENGRAVED, LAMINATED-PHENOLIC OR REFLECTIVE SCOTCHLITE MATERIALS) PLACED OUTSIDE THE FUSE BOX DOOR. AT A MINIMUM, THE SIGN OR DECAL SHALL INDICATE THE ANTENNA OWNER/OPERATOR NAME, EMERGENCY 24-HOUR CONTACT NUMBER, AND UNIQUE IDENTIFIER OR NOC NUMBER FOR THE ANTENNA SITE. SIGNAGE SHALL BE PLACED AT 8"-0" MINIMUM TO 11"-0" MAXIMUM ON THE OUTSIDE OF FUSE BOX DOOR. LABELING SHALL BE PLACED INSIDE THE FUSE BOX IDENTIFYING; RF/POWER DISCONNECT, AND FUSE BLOCK WITH AMPACITY OF FUSE IN USE.
  - INSTALL #8, 3 1/C TW CU FOR OVERHEAD. REFER TO DUG AP 100. ENERGIZE THRU CLOSED RF/POWER SWITCH TO OPEN CUSTOMER-FUSED SWITCH..
  - ANTENNA WITH EMERGENCY RF/POWER DISCONNECT SWITCH MAY BE PLACED ON NON SCE POLE WHERE THERE IS VEHICULAR ACCESS TO THE POLE, THE POLE IS A MAXIMUM OF 250 FEET RADIALLY, AND THE POLE/ANTENNA IS CLEARLY VISIBLE WITH NO OBSTRUCTIONS FROM THE WIRELESS TECHNOLOGY RATE (WTR) BOX LOCATION



**WTR FUSE SPLICE BOX (FSB) IN HAND HOLE** SCALE NONE 7



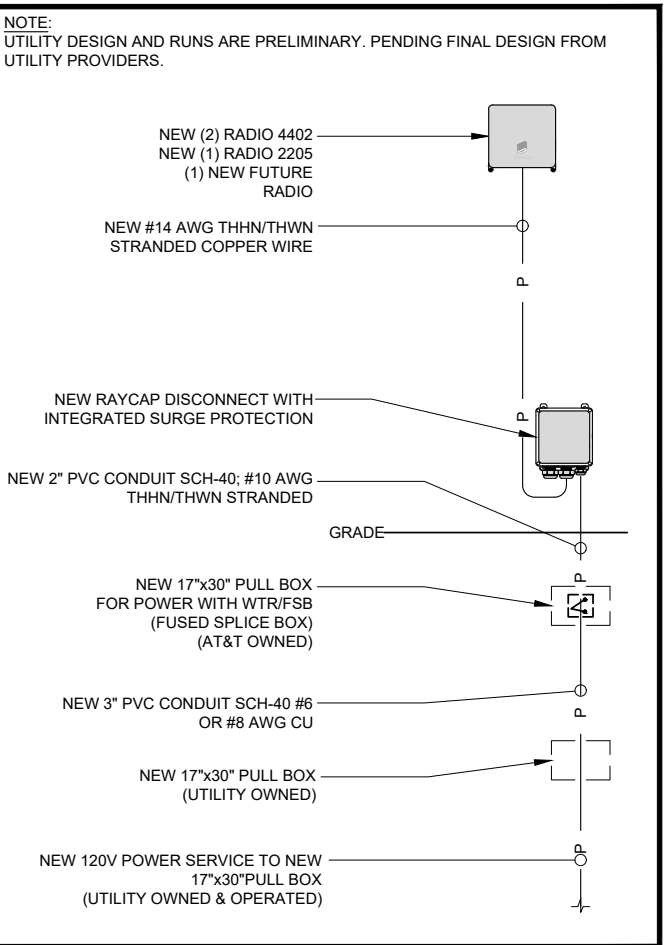
**GROUNDING SCHEMATIC** SCALE NONE 5

**NOT USED** SCALE NONE 8

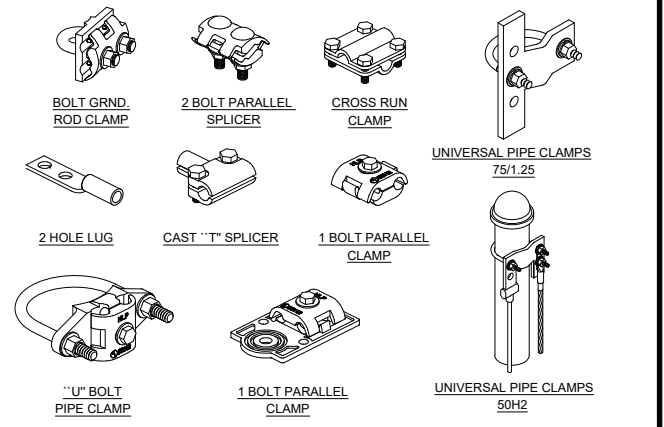
**NOT USED** SCALE NONE 8

**NOT USED** SCALE NONE 7

**NOT USED** SCALE NONE 10



**ONE-LINE DIAGRAM** SCALE NONE 6



**MECHANICAL CONNECTIONS** SCALE NONE 9

**NOT USED** SCALE NONE 10

APPLICANT:

1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:

an SFC Communications, Inc. Company  
65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

CHECKED BY A&E:	FE
CHECKED BY OSP:	AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
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LICENSER:

PROJECT INFORMATION:

LDRH - 005A

5770 UPLANDER WAY  
CULVER CITY, CA 90230

SHEET TITLE:

ELECTRICAL AND  
GROUNDING DETAILS

SHEET NUMBER:

E-1

**CONNECTING TO EXISTING SCE STRUCTURES**

- Per SCE requirements, customers are not allowed to enter, intercept or tie-in to existing SCE facilities; e.g. structures, equipment, multi-conduit runs/banks, or conductors. These facilities may be energized and the work will only be performed by SCE. Contact the appropriate SCE inspector to schedule an appointment. Customers may connect to an existing conduit stub without a SCE inspector present.
- Multi-conduit runs/banks are runs of conduit in close proximity to each other and other SCE facilities. A conduit stub is a single empty conduit stub that is not in close proximity to other SCE owned facilities. Refer to the work order map for details.
- Per CPUC/SCE's Rule 15 B.1.A and Rule 16 D.1.A., the customer will provide all necessary excavations (with the exception of excavation under pads and primary splice boxes), material (including conduit and structures) and encasement, to be utilized in the intercept/tie-in process.
- The customer must adhere to all applicable Cal-OSHA, local, city, state and federal regulations, (including, but not limited to, all necessary shoring and traffic control in place to perform the intercept/tie-in work by SCE's underground civil contractor(s)).
- Intercept/tie-in work must be coordinated with SCE's civil contractors through the Division Inspector/P-Spec to limit exposure of excavation(s). Customer is responsible for securing excavation(s).

DOB: 11/13/18

**TIE-IN MADE THROUGH SIDE WALL OF STRUCTURE**

(Vault, Manhole, PME, SOE/CST, BURD, Slab Box, Pull Box, PMH)  
The customer is responsible to trench to the structure entrance point and bring the conduit to within 5' of the structure being entered. The customer is to provide slip coupling and conduit.

**WARNING**

THE EXCAVATOR MUST TAKE ALL STEPS NECESSARY TO AVOID CONTACT WITH UNDERGROUND FACILITIES WHICH MAY RESULT IN INJURY TO PERSONS OR DAMAGE TO FACILITIES IN THE AREA. THE INDICATED LOCATIONS OF EDISON UNDERGROUND FACILITIES, AS PROVIDED, ARE BELIEVED TO BE ACCURATE, HOWEVER, THE FINAL DETERMINATION OF EXACT LOCATIONS AND THE COST OF REPAIR TO DAMAGED FACILITIES IS THE RESPONSIBILITY OF THE EXCAVATOR.

**TIE-IN MADE INTO A SECONDARY HANDHOLE**

If PVC conduit is used, riser bend installation may be made by the customer with prior SCE approval. Customer not to remove handhole cover. If metallic conduit is used or handhole cover needs to be removed, a SCE Qualified Person must be present.

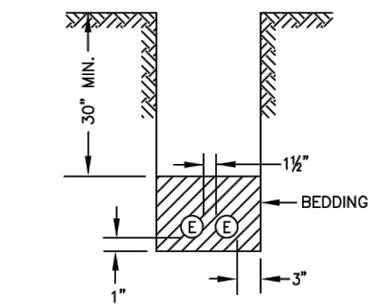
CUSTOMER-OWNED CONDUIT MATERIAL\* AND CONCRETE ENCASUREMENT ARE TO BE INSTALLED IN ACCORDANCE WITH EDISON ELECTRICAL SERVICE REQUIREMENTS.

\*SUBJECT TO APPROVAL BY LOCAL INSPECTION AUTHORITIES

D14: Rev. 01/85

NOTE:  
ALL ELECTRICAL DUCTS AND STRUCTURES WILL CONFORM TO GENERAL ORDER #128 (RULES FOR CONSTRUCTION OF UNDERGROUND ELECTRICAL SUPPLY AND COMMUNICATION PRESCRIBED BY THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA, JANUARY 2006).

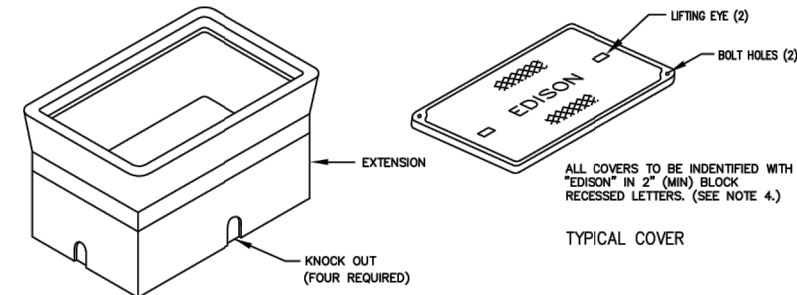
**TYPICAL CONDUIT BANK SECTION**  
SEE UGS CD 120



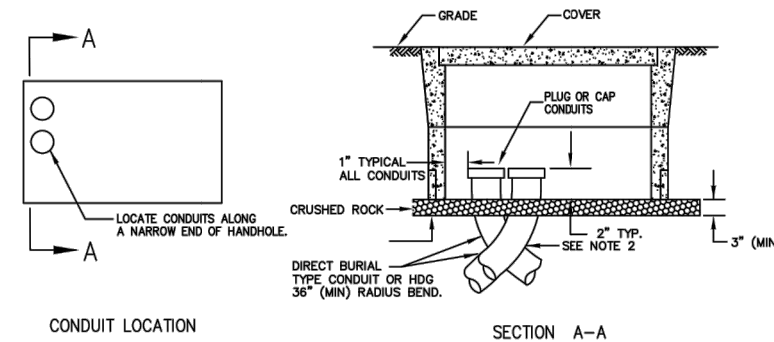
DIRECT BURIAL  
SIMILAR CONSTRUCTION FOR FEWER CONDUIT  
2 CONDUITS MAX.

D81: Rev. 09/23/09

**TYPICAL HANDHOLE INSTALLATION**  
SEE UGS HP 205



TYPICAL ASSEMBLY  
(WITHOUT COVER)



**NOTES:**

- SEE UGS HP 200 FOR DIMENSIONS OF VARIOUS SIZE HANDHOLES AVAILABLE.
- RADIUS ANGLE MAY BE REDUCED TO LESS THAN 90° PROVIDING THE PROJECTED CENTER LINE OF THE CONDUIT CLEARS HANDHOLE OPENING.
- TWO HOLD DOWN DEVICES TO BE SUPPLIED WITH EACH HANDHOLE.
- COVER SHALL BE IDENTIFIED WITH "EDISON" IN MINIMUM 2-INCH LETTERS OR LABELS PERMANENTLY SECURED TO THE LID.
- FOR MAINTENANCE ON 10-1/2" X 17" CONCRETE HANDHOLES USE SWINGBOLT WITH SAP 10204721.

D75 REV. 03/18/19

**FINAL DESIGN**  
**APPROVED FOR CONSTRUCTION**

DISTRICT 42 - SANTA MONICA		PROJ. MGR. Hunter, Yolanda D PHONE 909-477-6471		PLANNER Yoon, Eric Ki Young PHONE 626-308-6165		DESIGNER Garcia, Marivella	
PROJECT NO. 2176499	SERVICE REQUEST 3071075	MSR NO.	PRODUCT-1 1850336-LINE EXTENSION		ASSOC DESGN 1398859		
CIRCUIT / VOLTAGE BOGART 16KV		GPS	PRODUCT-2		ASSOC DESGN		
SUB / PG NO. MOVIE SUB		CIRCUIT CODE	PRODUCT-3		ASSOC DESGN		
INVENTORY MAP LT-7261-E		J.P.A. NO.		PROPOSED CONSTRUCTION (LOCATION) AT&T MOBILITY SITE#268956 5770W UPLANDER WAY CULVER CITY CA 90230			
F	5/26/2021	M.RANDOLPH	E.YOON	M.GARCIA			
TYPE	DATE	APPROVED BY	CHECKED BY	DRAWN BY	PAX #	SHEET 1 OF 2	DESIGN\DRWG NO. 1398859_0.01
Southern California Edison Company							

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:



65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

CHECKED BY A&E: FE  
CHECKED BY OSP: AJ

REVISIONS:

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LICENSER:

PROJECT INFORMATION:

LDRAH - 005A

5770 UPLANDER WAY  
CULVER CITY, CA 90230

SHEET TITLE:

SCE FINAL POWER DESIGN

SHEET NUMBER:

**UD-1**



APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:




an SFC Communications, Inc. Company  
65 POST, SUITE 1000  
IRVINE, CA 92618  
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CHECKED BY A&E:	FE
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REVISIONS:

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A	07/30/19	90% CONSTRUCTION DWG	RAC

LICENSER:



EDISON  
An EDISON INTERNATIONAL Company

PROJECT INFORMATION:

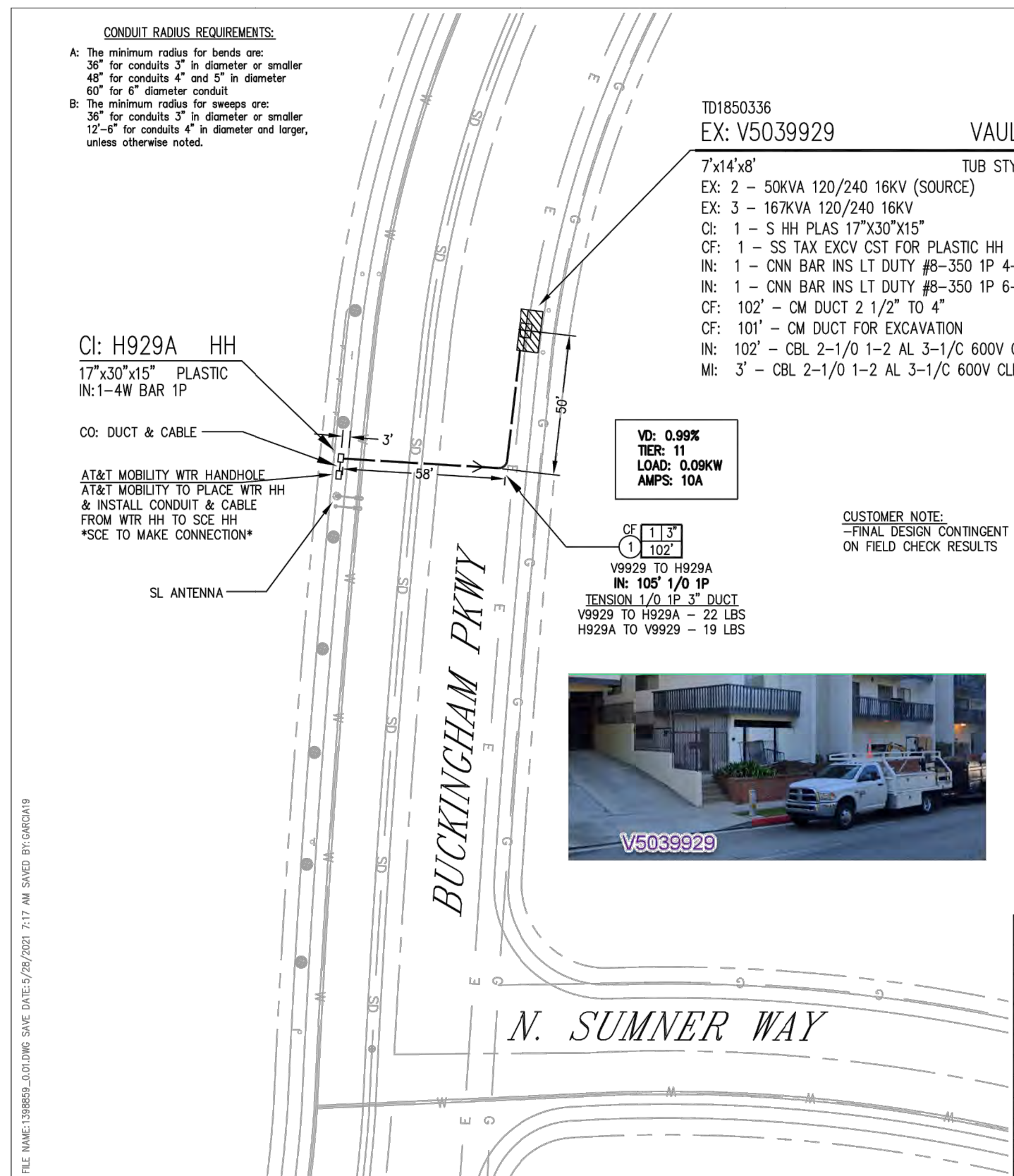
LDRAH - 005A  
5770 UPLANDER WAY  
CULVER CITY, CA 90230

SHEET TITLE:

SCE FINAL POWER DESIGN

SHEET NUMBER:

UD-2



T.L.M. DATA:

SIZE	KVA	CUST	% LOAD
EXIST. 601	236	111	39.27%
PROP. 601	237	112	39.4%

VOLTAGE DROP: 0.99  
 FLICKER FACTOR: N/A  
 PRI. CIRCUIT: BOGART 16KV

**UNDERGROUND SERVICE ALERT**  
 Contact USA  
 Dial 811 or 800-422-4133  
 www.digalert.org/contact

For Underground Locating  
 Two Working Days Before You Dig

D16: Rev. 05/28/20

**SCE Inspection**  
 Contact SCE 48 Hours in advance  
 for a Pre-Construction meeting  
 and/or Inspection.  
 Email: NDPFCS@SCE.COM

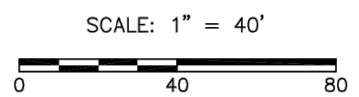
PROJECT REQUIREMENTS (Y/N)

EDISON EASEMENT REQUIRED	<input type="checkbox"/>
PWRD 88 REQUIRED	<input checked="" type="checkbox"/>
UG CIVIL ONLY WORK ORDER	<input type="checkbox"/>
PERMIT REQUIRED	<input checked="" type="checkbox"/>
PERMIT TYPE: ENCROACHMENT	
OUTAGE REQUIRED	<input type="checkbox"/>
OUTAGE DATE: _____ TIME: _____	
TRAFFIC CONTROL REQUIRED	<input checked="" type="checkbox"/>
PED. TRAFFIC CONTROL REQ'D	<input type="checkbox"/>
CONVEYANCE LETTER REQ'D	<input type="checkbox"/>
ENVIRONMENTAL REQUIREMENTS DOCUMENT (ERD) REQUIRED	<input type="checkbox"/>
CSD 140 (TLM) REQ'D	<input type="checkbox"/>

D124: Rev. 12/04/20

Applicants expressly represent and warrant that all work performed and all material used in meeting Applicants' obligations herein are free from defects in workmanship and are in conformity with Southern California Edison Company's requirements. This warranty shall commence upon receipt by Applicants of the Company's final acceptance and shall expire one year from that date. Applicants agree to promptly correct to the Company's satisfaction and that of any governmental agency having jurisdiction and at Applicants' expense any breach of this warranty which may become apparent through inspection or operation of underground electric system by the Company during this warranty period.

**FINAL DESIGN  
 APPROVED FOR CONSTRUCTION**



DISTRICT 42 - SANTA MONICA	PROJ. MGR. Hunter, Yolanda D PHONE 909-477-6471	PLANNER Yoon, Eric Ki Young PHONE 626-308-6165	DESIGNER Garcia, Marivella
PROJECT NO. 2176499	SERVICE REQUEST 3071075	MSR NO.	PRODUCT-1 1850336-LINE EXTENSION
CIRCUIT / VOLTAGE BOGART 16KV	GPS	PRODUCT-2	ASSOC DESIGN 1398859
SUB / PG NO. MOVIE SUB	CIRCUIT CODE	PRODUCT-3	ASSOC DESIGN
INVENTORY MAP LT-7261-E	J.P.A. NO.	PROPOSED CONSTRUCTION (LOCATION) AT&T MOBILITY SITE#268956 5770W UPLANDER WAY CULVER CITY CA 90230	
F 5/26/2021	M.RANDOLPH	E.YOON	M.GARCIA
TYPE	DATE	APPROVED BY	CHECKED BY
Southern California Edison Company			
SHEET 2 OF 2		DESIGN\DRWG NO. 1398859_0.01	

FILE NAME: 1398859\_0.01.DWG SAVE DATE: 5/28/2021 7:17 AM SAVED BY: GARCIA19



Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

Road Type	Distance Between Signs*		
	A	B	C
Urban (low speed) – 25 mph or less	100 ft	100 ft	100 ft
Urban (high speed) – more than 25 mph to 40 mph	250 ft	250 ft	250 ft
Urban (high speed) – more than 40 mph	350 ft	350 ft	350 ft
Rural	500 ft	500 ft	500 ft
Expressway / Freeway	1,000 ft	1,000 ft	1,000 ft

\* Speed category to be determined by the highway agency.  
 \*\* The column headings A,B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

Table 6C-2. Stopping Sight Distance as a Function of Speed on Level Roads.

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet

\* Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.

Table 6C-3 (CA). Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)

Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (w)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)***
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50

\* – Posted speed limit, off peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.  
 \*\* – For other offsets use the following merging taper length formula for L:  
 For speeds of 40 mph or less,  $L=WS/60$   
 For speeds of 45 mph or more,  $L=WS$   
 Where L = taper length in feet  
 W = width of offset in feet  
 S = posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.  
 \*\*\* – Maximum downstream taper length is 100 feet. See Section 6C.08.

GENERAL NOTES:

1. WORK HOURS TO BE RESTRICTED TO 8:00AM TO 4:30PM UNLESS APPROVED OTHERWISE.
2. PEDESTRIAN CONTROLS WILL BE PROVIDED AS SHOWN.
3. PEDESTRIANS SHALL BE PROTECTED FROM ENTERING THE EXCAVATION BY PHYSICAL BARRIERS DESIGNED, INSTALLED, AND MAINTAINED TO THE SATISFACTION OF THE CITY ENGINEER.
4. TEMPORARY "NO PARKING/TOW AWAY" SIGNS STATING THE DATE AND TIME OF PROHIBITION WILL BE POSTED 72 HOURS PRIOR TO COMMENCING WORK. CALL POLICE DISPATCH TO VALIDATE POSTING.
5. ACCESS WILL BE MAINTAINED TO ALL DRIVEWAYS UNLESS OTHER ARRANGEMENTS ARE MADE.
6. TRENCHES MUST BE BACKFILLED OR PLATED DURING NON-WORKING HOURS UNLESS K-RAIL BARRIERS ARE PROVIDED. K-RAIL IS APPROVED ONLY WHEN SPECIFICALLY SHOWN ON THE APPROVED TRAFFIC CONTROL PLAN. PLATES SHALL HAVE CLEATS AND COLD MIX AT THE EDGES AS APPROVED BY THE INSPECTOR.
7. STRIPING WILL BE REPLACED BY THE CONTRACTOR WITHIN 24 HOURS, IF REMOVED OR DAMAGED.
8. WORK THAT DISTURBS NORMAL TRAFFIC SIGNAL TIMING OPERATIONS SHALL BE COORDINATED WITH THE CITY. CONTACT PUBLIC WORKS DEPARTMENT 72 HOURS PRIOR TO COMMENCING WORK.
9. TRAFFIC SIGNALS SHALL REMAIN FULLY ACTUATED AT ALL TIMES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER OR HIS/HER REPRESENTATIVE. IF TRAFFIC SIGNAL LOOP DETECTORS ARE RENDERED INOPERATIVE BY THE PROPOSED WORK, VIDEO DETECTION SHALL BE USED TO PROVIDE ACTUATION.
10. FLAGGERS SHALL BE EQUIPPED WITH A WHITE HARD HAT, AN ORANGE VEST, AND A "STOP/SLOW" PADDLE ON A 5 FOOT STAFF.
11. ALL TRAFFIC CONTROL DEVICES MUST BE MAINTAINED 24 HOURS A DAY, 7 DAYS PER WEEK, BY THE CONTRACTOR.
12. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2014 EDITION.
13. TRAFFIC CONTROL PLAN SUBMITTALS ARE REQUIRED FOR EACH PHASE OF THE WORK IN THE DETAIL, FORMAT, AND QUALITY ILLUSTRATED ON THIS SHEET.
14. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM VIEW OR COVERED WHEN NOT IN USE.
15. THE CITY ENGINEER OR HIS/HER REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO INSURE PUBLIC SAFETY.
16. ALL WORK AFFECTING BUS STOPS SHALL BE COORDINATED WITH CITY'S TRANSIT DISTRICT. CONTRACTOR SHALL CALL TRANSIT DISTRICT AT LEAST 72 HOURS IN ADVANCE OF STARTING WORK.
17. CHANGEABLE MESSAGE SIGNS SHALL BE USED IN ADVANCE OF TRAFFIC CONTROL ON MAJOR AND PRIME ARTERIALS, UNLESS OTHERWISE APPROVED. THESE SIGNS SHALL BE SHOWN ON THE TRAFFIC CONTROL PLAN.

SIGNAGE NOTES:

1. AT LEAST ONE PERSON SHALL BE ASSIGNED TO FULL TIME MAINTENANCE OF TRAFFIC CONTROL DEVICES ON ALL NIGHT LANE CLOSURES.
2. ALL WARNING SIGNS FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED OR REFLECTORIZED AS SPECIFIED IN THE SPECIFICATIONS.
3. ALL ADVANCE WARNING SIGN INSTALLATIONS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES OF ALL MAJOR AND PRIME ARTERIALS. FLASHING BEACONS SHALL BE USED DURING NIGHT LANE CLOSURES.
4. A G20-2 "END ROAD WORK" SIGN SHALL BE PLACED AT THE END OF THE LANE CLOSURE UNLESS THE END OF THE WORK AREA IS OBVIOUS, OR ENDS WITHIN A LARGER PROJECT LIMITS.
5. ALL CONES USED FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED TRAFFIC CONES OR FITTED WITH 13" REFLECTIVE SLEEVES.
6. FLASHING ARROW SIGNS SHALL BE USED PER CA MUTCD 2014 EDITION. SILENT TYPE SHALL BE USED IN RESIDENTIAL AREAS.
7. THE MAXIMUM SPACING BETWEEN CONES SHALL BE THE WORK AREA'S SPEED LIMIT.
8. ADDITIONAL ADVANCE FLAGGERS SHALL BE REQUIRED WHEN TRAFFIC QUEUES DEVELOP. FLAGGER STATIONS FOR WORK AT NIGHT SHALL BE ILLUMINATED AS NOTED IN SECTION 6G.20 OF THE MUTCD.
9. ALL REQUIRED SIGNS THAT ARE TO BE LEFT IN PLACE OVER A WEEKEND OR HOLIDAY SHALL BE POST MOUNTED.
10. CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL MEET THE PROVISIONS OF 2014 CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:



65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

DRAWN BY: FE  
CHECKED BY: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	RAC

LICENSER:



EXPIRATION DATE: 12-31-20  
DATE SIGNED: 10-24-19

PROJECT INFORMATION:

LDRAH-005A  
5770 UPLANDER WAY.  
CULVER CITY, CA 90230

SHEET TITLE:

TRAFFIC CONTROL  
GENERAL NOTES

SHEET NUMBER:

TCP-1

APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:



an SFC Communications, Inc. Company  
65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

DRAWN BY: FE  
CHECKED BY: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	RAC

LICENSER:



EXPIRATION DATE: 12-31-20  
DATE SIGNED: 10-24-19

PROJECT INFORMATION:

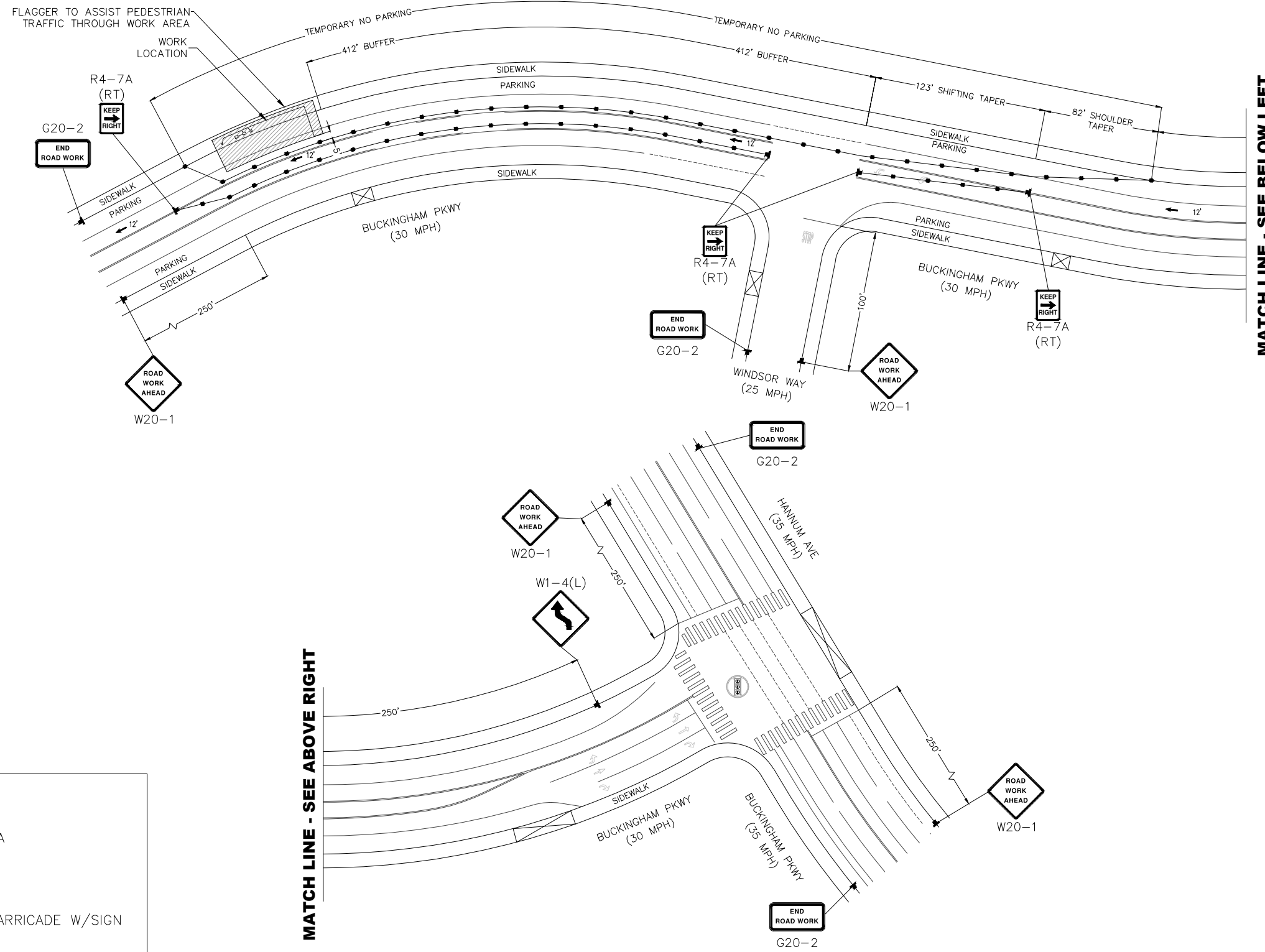
LDRAH-005A  
5770 UPLANDER WAY.  
CULVER CITY, CA 90230

SHEET TITLE:

TRAFFIC CONTROL PLAN

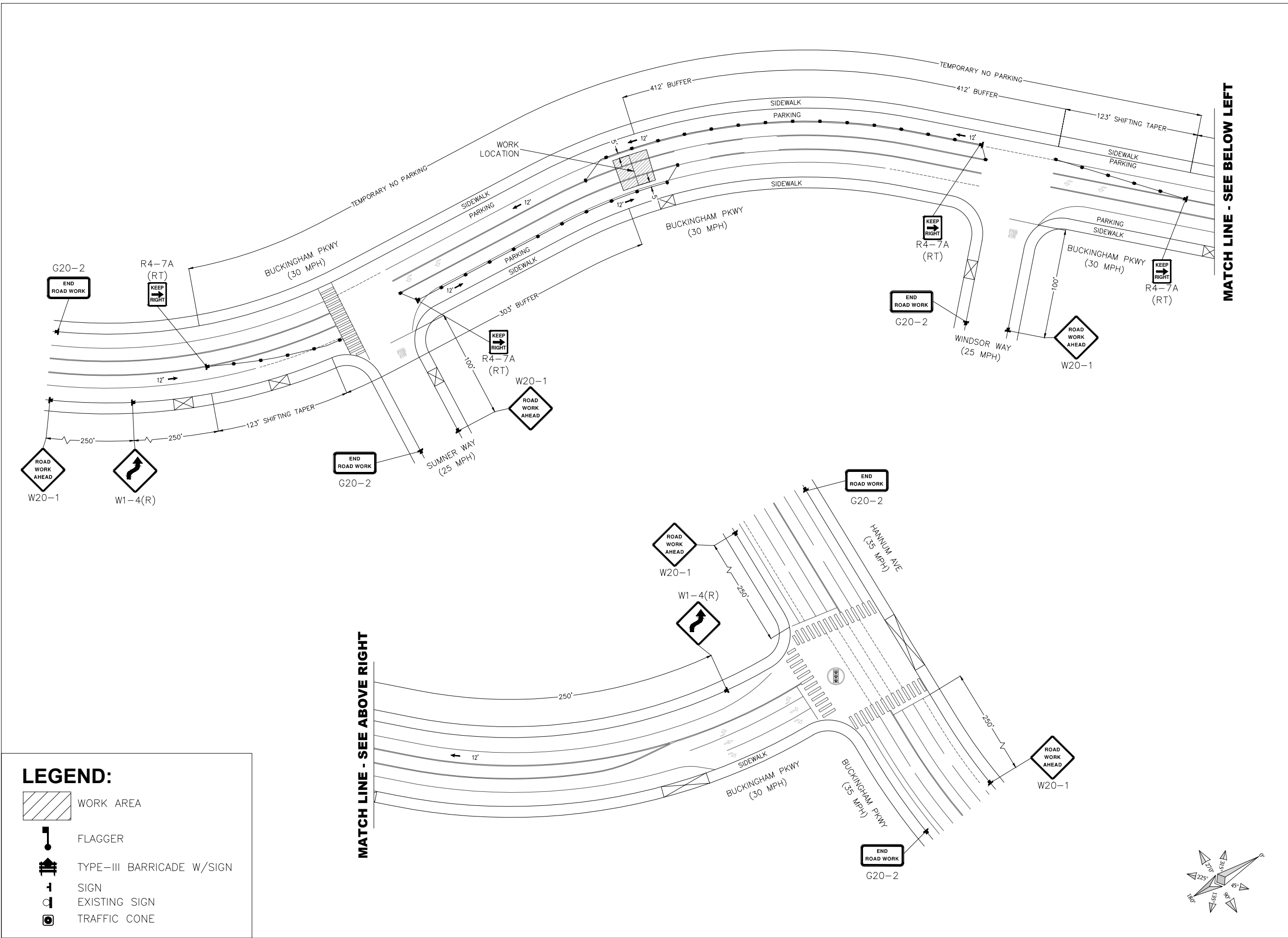
SHEET NUMBER:

TCP-2



**LEGEND:**

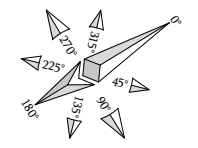
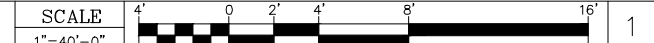
- WORK AREA
- FLAGGER
- TYPE-III BARRICADE W/SIGN
- SIGN
- EXISTING SIGN
- TRAFFIC CONE



**LEGEND:**

- WORK AREA
- FLAGGER
- TYPE-III BARRICADE W/SIGN
- SIGN
- EXISTING SIGN
- TRAFFIC CONE

**TRAFFIC CONTROL PLAN PHASE 2**



APPLICANT:

1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:

an SFC Communications, Inc. Company  
65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

DRAWN BY: FE  
CHECKED BY: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	RAC

LICENSER:

EXPIRATION DATE: 12-31-20  
DATE SIGNED: 10-24-19

PROJECT INFORMATION:

LDRAH-005A  
5770 UPLANDER WAY.  
CULVER CITY, CA 90230

SHEET TITLE:  
TRAFFIC CONTROL PLAN

SHEET NUMBER:  
**TCP-3**



APPLICANT:



1452 EDINGER AVE.  
TUSTIN, CA 92780

ENGINEER:



an SFC Communications, Inc. Company  
65 POST, SUITE 1000  
IRVINE, CA 92618  
TEL: (949) 553-8566  
www.eukongroup.com

DRAWN BY: FE  
CHECKED BY: AJ

REVISIONS:

REV	DATE	DESCRIPTION	BY
1	10/23/19	FOUNDATION UPDATE	JG
0	08/01/19	100% CONSTRUCTION DWG	SM
A	07/30/19	90% CONSTRUCTION DWG	RAC

LICENSER:



EXPIRATION DATE: 12-31-20  
DATE SIGNED: 10-24-19

PROJECT INFORMATION:

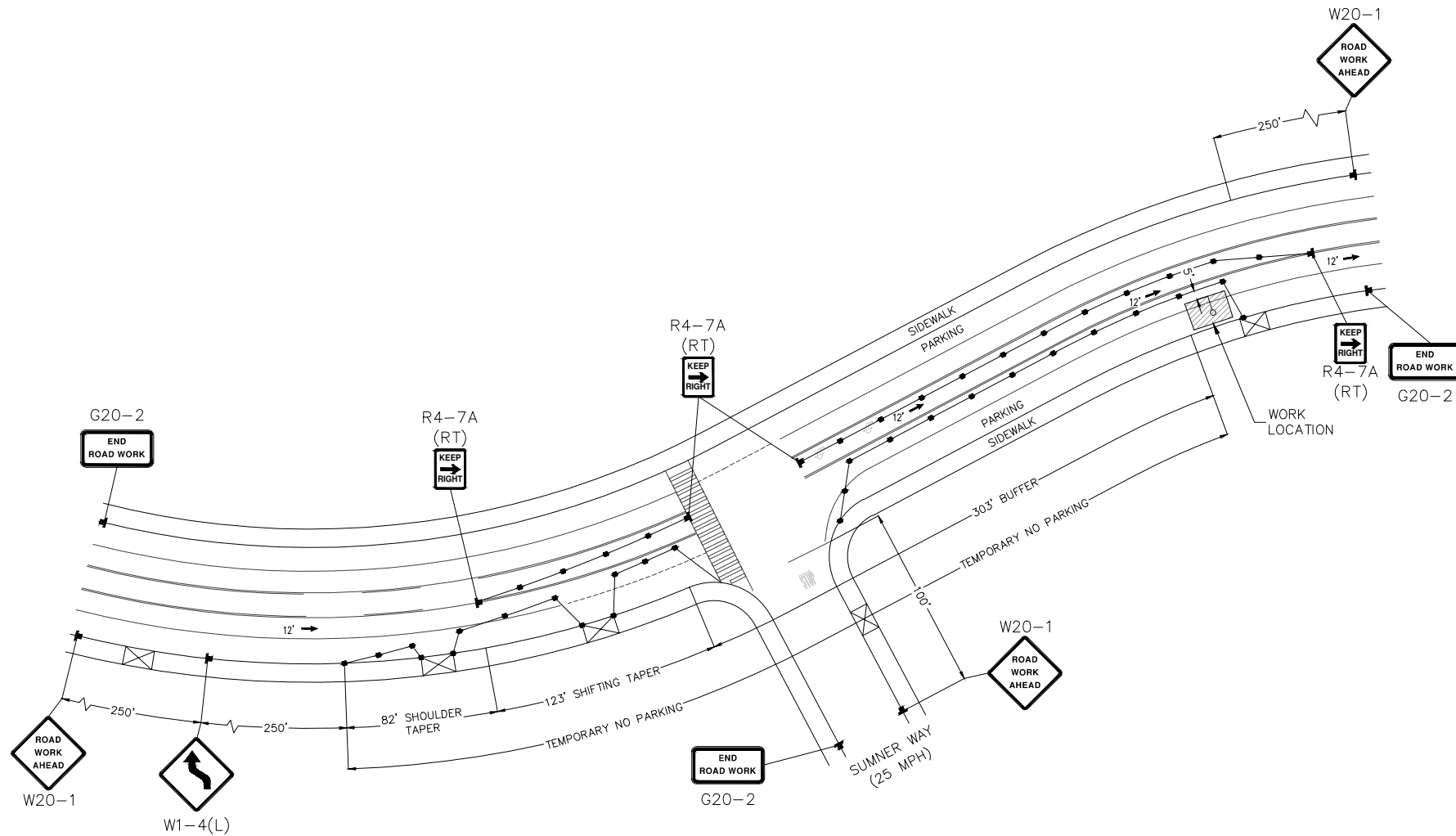
LDRAH-005A  
5770 UPLANDER WAY.  
CULVER CITY, CA 90230

SHEET TITLE:

TRAFFIC CONTROL PLAN

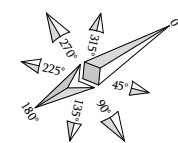
SHEET NUMBER:

TCP-4



**LEGEND:**

- WORK AREA
- FLAGGER
- TYPE-III BARRICADE W/SIGN
- SIGN
- EXISTING SIGN
- TRAFFIC CONE



**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_005A)  
5770 Uplander Way • Culver City, California**

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

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of AT&T Mobility, a personal wireless telecommunications carrier, to evaluate its small cell (No. CRAN\_RLOS\_LDRAH\_005A) proposed to be sited in Culver City, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

**Executive Summary**

AT&T proposes to install four small antennas on the municipal light pole sited in the public right-of-way near 5770 Uplander Way in Culver City. 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 limit for exposures of unlimited duration at several wireless service bands are as follows:

<u>Wireless Service Band</u>	<u>Transmit Frequency</u>	<u>“Uncontrolled” Public Limit</u>	<u>Occupational Limit (5 times Public)</u>
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm <sup>2</sup>	5.0 mW/cm <sup>2</sup>
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

**General Facility Requirements**

Small cells 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 radios are typically mounted on the support pole or placed in a cabinet at ground level, and they



**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_005A)  
5770 Uplander Way • Culver City, California**

are connected to the antennas by coaxial cables. 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”). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

### **Site and Facility Description**

Based upon information provided by AT&T, including drawings by Eukon Group, dated June 8, 2021, it is proposed to install four antennas – one Gamma Nu Model QOYZ9X360F14T, 2-foot-tall, omnidirectional\* cylindrical and three Ericsson Model 1281, 1-foot-tall, directional panels – on a new light pole to replace the existing pole sited in the public right-of-way on the west side of Buckingham Parkway in Culver City, about 220 feet north of its intersection with North Sumner Way, behind the office building at 5770 Uplander Way. The Gamma Nu antenna would employ up to 6° downtilt and would be mounted within a shroud on top of the pole at an effective height of about 38 feet above ground. The Ericsson antennas would employ up to 15° downtilt, would be mounted below the light arm at an effective height of about 28½ feet above ground, and would be oriented with 120° spacing, to provide service in all directions. The maximum effective radiated power proposed in any direction is 942 watts, representing simultaneous operation at 280 watts for AWS and 240 watts for PCS from the Gamma Nu antenna,† and at 422 watts‡ from the Ericsson antennas. There are reported no other wireless telecommunications base stations at the site or nearby.

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\* Assumed to be omnidirectional, although manufacturer’s patterns show reduced power in certain directions.

† The drawings show space for “future” radios within the concealment shroud; these are unidentified at this time and so have not been included in this analysis.

‡ This is the maximum effective radiated power. The manufacturer reports that the antenna transmits 75% of the time in this band; this factor is incorporated into the calculation methodology.





**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_005A)  
5770 Uplander Way • Culver City, California**

**Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed AT&T operation is calculated to be 0.055 mW/cm<sup>2</sup>, which is 5.5% of the applicable public exposure limit. The maximum calculated level at any nearby building<sup>§</sup> is 6.9% 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.

**Recommended Mitigation Measures**

Due to their mounting locations and heights, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training be provided to all workers who have access within 10 feet outward from the Ericsson antennas<sup>\*\*</sup> or 3½ feet outward from the Gamma Nu antenna. No access within 2½ feet directly in front of the Ericsson antennas should be allowed while they are in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that explanatory signs<sup>††</sup> be posted at the antennas and/or on the pole below the antennas, readily visible from any angle of approach.

**Conclusion**

Based on the information and analysis above, it is the undersigned’s professional opinion that operation of the small cell proposed by AT&T Mobility near 5770 Uplander Way in Culver City, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will 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 small cells. Training authorized personnel and posting explanatory signs are recommended to establish compliance with FCC guidelines.

---

<sup>§</sup> Located at least 65 feet away, based on photographs from Google Maps.

<sup>\*\*</sup> May include workers on the pole or on a lift to trim nearby trees.

<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 guidelines from the landlord, local zoning or health authority, or appropriate professionals may be required.



**AT&T Mobility • Proposed Small Cell (No. CRAN\_RLOS\_LDRAH\_005A)  
5770 Uplander Way • Culver City, California**

**Authorship**

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. 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.



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

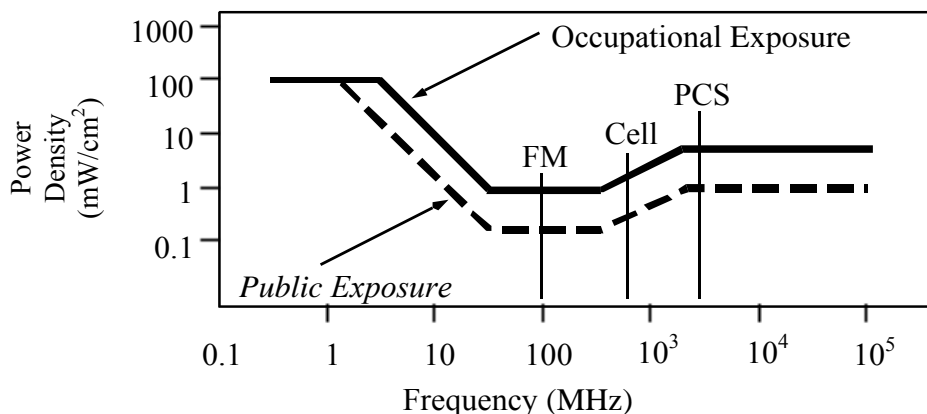
June 30, 2021

## 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 (f 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√f	<i>1.59√f</i>	√f/106	<i>√f/238</i>	f/300	<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 incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.



## 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 antenna, in degrees,

$P_{net}$  = net power input to antenna, in watts,

$D$  = distance from antenna, in meters,

$h$  = aperture height of 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:

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

where  $ERP$  = total ERP (all polarizations), in kilowatts,

$RFF$  = three-dimensional relative field factor toward point of calculation, and

$D$  = distance from antenna effective height to 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 is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

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5770 Uplander Way • Culver City, California**

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

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of AT&T Mobility, a personal wireless telecommunications carrier, to evaluate its small cell (No. CRAN\_RLOS\_LDRAH\_005A) proposed to be sited in Culver City, California, for compliance with appropriate guidelines limiting human exposure to radio frequency (“RF”) electromagnetic fields.

**Executive Summary**

AT&T proposes to install four small antennas on the municipal light pole sited in the public right-of-way near 5770 Uplander Way in Culver City. 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 limit for exposures of unlimited duration at several wireless service bands are as follows:

<u>Wireless Service Band</u>	<u>Transmit Frequency</u>	<u>“Uncontrolled” Public Limit</u>	<u>Occupational Limit (5 times Public)</u>
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm <sup>2</sup>	5.0 mW/cm <sup>2</sup>
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
CBRS (Citizens Broadband Radio)	3,550 MHz	1.0	5.0
BRS (Broadband Radio)	2,490	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
600 MHz	617	0.41	2.05
[most restrictive frequency range]	30–300	0.20	1.0

**General Facility Requirements**

Small cells 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 radios are typically mounted on the support pole or placed in a cabinet at ground level, and they



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are connected to the antennas by coaxial cables. 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”). This methodology is an industry standard for evaluating RF exposure conditions and has been demonstrated through numerous field tests to be a conservative prediction of exposure levels.

### **Site and Facility Description**

Based upon information provided by AT&T, including drawings by Eukon Group, dated June 8, 2021, it is proposed to install four antennas – one Gamma Nu Model QOYZ9X360F14T, 2-foot-tall, omnidirectional\* cylindrical and three Ericsson Model 1281, 1-foot-tall, directional panels – on a new light pole to replace the existing pole sited in the public right-of-way on the west side of Buckingham Parkway in Culver City, about 220 feet north of its intersection with North Sumner Way, behind the office building at 5770 Uplander Way. The Gamma Nu antenna would employ up to 6° downtilt and would be mounted within a shroud on top of the pole at an effective height of about 38 feet above ground. The Ericsson antennas would employ up to 15° downtilt, would be mounted below the light arm at an effective height of about 28½ feet above ground, and would be oriented with 120° spacing, to provide service in all directions. The maximum effective radiated power proposed in any direction is 942 watts, representing simultaneous operation at 280 watts for AWS and 240 watts for PCS from the Gamma Nu antenna,† and at 422 watts‡ from the Ericsson antennas. There are reported no other wireless telecommunications base stations at the site or nearby.

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\* Assumed to be omnidirectional, although manufacturer’s patterns show reduced power in certain directions.

† The drawings show space for “future” radios within the concealment shroud; these are unidentified at this time and so have not been included in this analysis.

‡ This is the maximum effective radiated power. The manufacturer reports that the antenna transmits 75% of the time in this band; this factor is incorporated into the calculation methodology.





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**Study Results**

For a person anywhere at ground, the maximum RF exposure level due to the proposed AT&T operation is calculated to be 0.055 mW/cm<sup>2</sup>, which is 5.5% of the applicable public exposure limit. The maximum calculated level at any nearby building<sup>§</sup> is 6.9% 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.

**Recommended Mitigation Measures**

Due to their mounting locations and heights, the antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training be provided to all workers who have access within 10 feet outward from the Ericsson antennas<sup>\*\*</sup> or 3½ feet outward from the Gamma Nu antenna. No access within 2½ feet directly in front of the Ericsson antennas should be allowed while they are in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that explanatory signs<sup>††</sup> be posted at the antennas and/or on the pole below the antennas, readily visible from any angle of approach.

**Conclusion**

Based on the information and analysis above, it is the undersigned’s professional opinion that operation of the small cell proposed by AT&T Mobility near 5770 Uplander Way in Culver City, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will 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 small cells. Training authorized personnel and posting explanatory signs are recommended to establish compliance with FCC guidelines.

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<sup>§</sup> Located at least 65 feet away, based on photographs from Google Maps.

<sup>\*\*</sup> May include workers on the pole or on a lift to trim nearby trees.

<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 guidelines from the landlord, local zoning or health authority, or appropriate professionals may be required.

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**Authorship**

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-21306, which expires on September 30, 2021. 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.



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

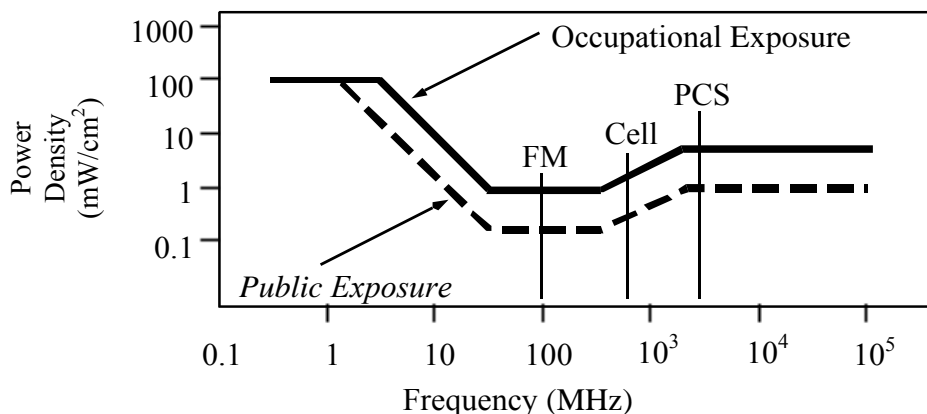
June 30, 2021

## 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 (f 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√f	<i>1.59√f</i>	√f/106	<i>√f/238</i>	f/300	<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 incorporated those formulas in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.



## 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 antenna, in degrees,

$P_{net}$  = net power input to antenna, in watts,

$D$  = distance from antenna, in meters,

$h$  = aperture height of 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:

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

where  $ERP$  = total ERP (all polarizations), in kilowatts,

$RFF$  = three-dimensional relative field factor toward point of calculation, and

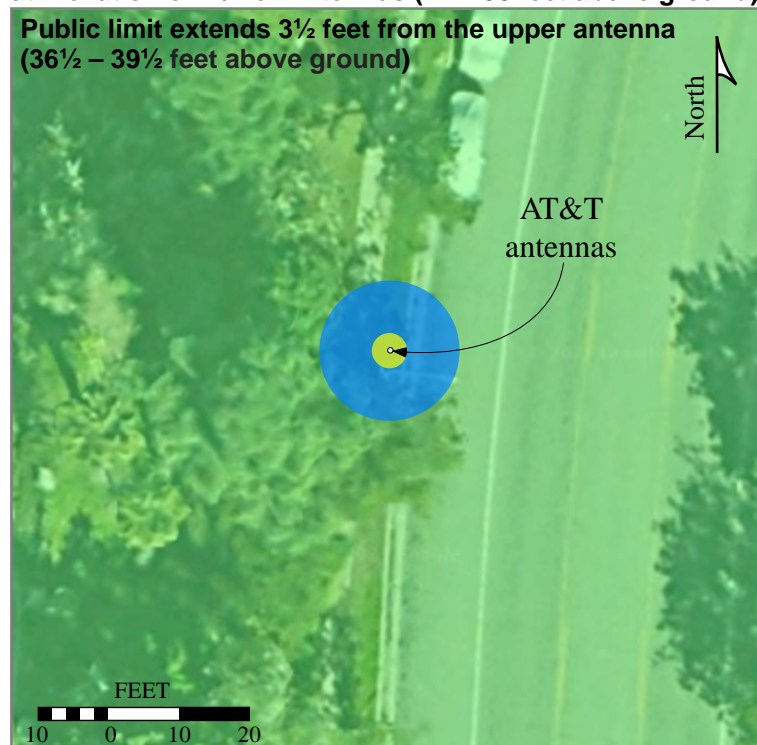
$D$  = distance from antenna effective height to point of calculation, in meters.

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 is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings of varying heights, to obtain more accurate projections.

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**Calculated RF Exposure Levels**

**at Elevation of Lower Antennas (27 – 30 feet above ground)**



**Legend:**

- less than FCC Public Limit
- greater than FCC Public Limit  
less than FCC Occupational Limit
- greater than FCC Occupational Limit

**Notes:**

Calculations performed according to OET Bulletin No. 65, August 1997.

The FCC public limit extends about 10 feet from the lower antennas and about 3½ feet from the upper antenna, not reaching any publicly accessible areas. The FCC occupational limit extends about 2½ feet from the lower antennas; the upper antenna is intrinsically compliant with the occupational limit.

Base image from Google Maps.

**at Ground and at Nearby Buildings**

