

Small Wireless Facility Construction Plan Review Checklist

Development Services Department

Engineering Division

A. Master Use and Occupancy Agreement (MUOA) – Previously known as a Master Use and Occupancy Permit (MUOP):

Y N

☐ ☐ Is the MUOA/P executed?

1.1 If YES, provide an executed copy of the MUOA/P.

1.2 If NO, submit the following items for an MUOA review:

1.2.1. Draft of MUOA

1.2.2. Approved Master Structural Plan (MSP)

1.2.3. Small Cell Attachment & Right of Way Permit Application

1.2.4. SDG&E electric service map with electric service shown to proposed site.

1.2.5. Location for point of connection for unmetered service for proposed site or Electrical Service Analysis (ESA) for direct connection to City power source.

B. Master Structural Plan (MSP):

Y N

1. ☐ ☐ Is the MSP approved?

1.1 If YES, provide a copy of the approved MSP.

1.2 If NO, submit the following items for an MSP review:

1.1.1. Signed copy of the MUOA

1.1.2. MSP Application

1.3 The following review disciplines will review the MSP applications:

- Engineering Building Review

- Structural review
- WCF-Telecom Review
- Traffic Safety Review
- Geology Review

1.4 The following items are required at the first submittal package. Failure to do so will result in multiple review cycles and may delay approval of the MSP.

- 1.4.1. General Application, Form DS-3032
- 1.4.2. Structural Calculations stamped and signed by a licensed Engineer in the State of California. (Calculations may be consolidated onto the plan and may not be a separate document).
- 1.4.3. Radio Frequency-Electromagnetic Energy (RF-EME) Compliance Report; one per MUOA.
- 1.4.4. Color Photo Simulation for each configuration/pole type.
- 1.4.5. Four sets of plans shall be prepared in accordance with the following requirements:
 - 11" x 17" minimum sized plans
 - Kill Switch must be identified on the pole.
 - Structures within the Coastal Height Limit Overlay Zone and in Residential zones shall not exceed 30-feet.
 - Each pole type requires a separate detail sheet.
 - Each configuration requires a separate detail sheet.
 - The following are sample attachments that shall be identified on the MSP:
 - ✓ Banners
 - ✓ Top Antenna Mount
 - ✓ Side Antenna Mount
 - ✓ Signs

1.5 Traffic Signal structural review shall be conducted through a D-sheet review and approval (except for pedestrian only signalized pole).

C. Small Wireless Facility Right of Way Permit (construction plan):

1. **Small Cell-Wireless Communication Facilities (SC-WCFs):** Installation and Trenching for SC-WCFs shall be submitted at the same time except when the installation of the SC-WCF does not require trenching.

***Phone appointments (619) 446-5000 are required for all SC-WCF submittals.** An email will be provided to the applicant to submit the proposed list of nodes (for the first initial submittal) in the format provided here:

<https://www.sandiego.gov/sites/default/files/dsd-small-cell-submittal-list.xlsx>

which must include the required JOIN ID number. This will allow staff to actively set up these projects in advance to minimize wait time. Staff will still be required to perform limited intake but the overall intake process will be streamlined. Staff will be unable to intake any revised/and or additional nodes not included in the original email. The invoice issued on the date of the submittal must be paid before any review can be done.

2. **SC-WCF Sites:**

- ☐ Existing Street Light, one (1) SC-WCF allowed per light.

For Existing Concrete Street Light, the applicant will be required to remove and replace the Concrete Street Light to a fabricated steel pole with a concrete texture. For standard steel street light detail (without concrete texture), please refer to CALTRANS 2010 Standard Plan ES-6A, type 15.

- ☐ Existing Traffic Signal: one (1) SC-WCF allowed per intersection.

Site locations are in limited areas and subject to approval by Transportation & Storm Water (TSW) Department.

For Existing Street Light and Traffic Signal:

- ☐ Verify the number of devices indicated on the SDG&E electric service map to proposed site and the total existing power consumption in amps.

- 2.1 If a connection to an existing City electric service line is requested the following requirements shall be met:

- ☐ There are no other SC-WCF connected to the electric service line, and
- ☐ The SC-WCF power consumption is less than 5 amps or less, and
- ☐ The Electric Service Line shall have a total power consumption of 15 amps or less.

3. The Right-of-Way (ROW) Permit Application for installation of an SC-WCF and for proposed trenching in the ROW will be reviewed by the Engineering Division, Drainage and Grades review disciplines. Please be advised other review disciplines (including but not limited to

Traffic Safety, Environmental, Geology, etc.) maybe be required and added on a case by case basis depending on site location and scope of work.

4. The following items are required and shall be included in the first submittal package. Failure to do so will result in multiple review cycles and delays of the approval of the ROW Permit.

- 4.1 Applicant Signed Master Use and Occupancy Agreement/Permit

- 4.2 Master Structural Plan

- 4.3 Construction cost estimate (Required only for D-Sheets)

If construction cost estimate is required, the applicant shall utilize current City Standard Construction Cost Estimate template provided online.

<https://www.sandiego.gov/development-services/industry/information/standtemp#d-sheet>

5. Forms

- 5.1 For most recent forms, please refer to:

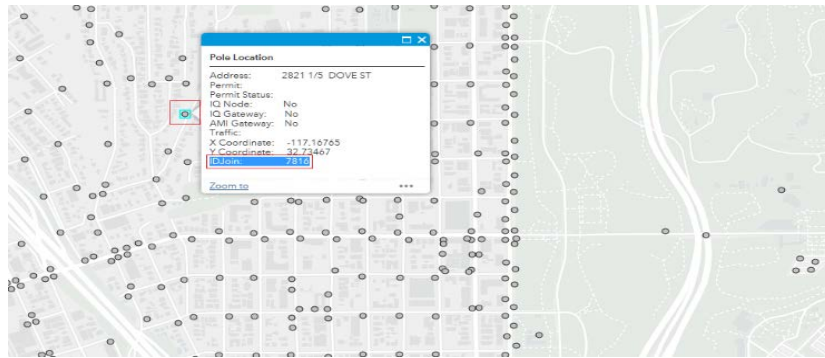
<https://www.sandiego.gov/development-services/forms-publications/forms>

The following forms must be completed and signed by an authorized agent or permit holder:

- a) General Application, DS-3032
 - b) Supplemental ROW Application, DS-3037
 - c) Excavation Moratorium Waiver, DS-350. This form shall be provided when excavation is in a moratorium street(s).
 - d) Storm Water Applicability Checklist, DS-560
 - e) SWPPP/WPCP (check one that applies):
 - ☐ SWPPP: This report is required when Soil disturbance area >= 1 Acre
 - ☐ WPCP: This report is required when Soil disturbance area > 5,000 SF, < 1 Acre. WPCP template can be found in Appendix D of the Storm Water Standards Manual. In addition to the WPCP a "Construction BMP Plan", consistent with the report shall be provided within the construction plan set.
 - ☐ DS 570 - Minor Water Pollution Control Plan (MWPCP): This form is required if trenching is more than 150 linear ft and when trenching/Soil disturbance area <= 5,000 SF
 - f) Provide current picture and latitude and longitude coordinate of site and the *JOIN ID Number and associated 1/5 address (small cell spec sheet and spread sheet found here:

https://www.sandiego.gov/sites/default/files/dsd_smallcellspectemplate.pdf

****The JOIN ID Number is listed in the Small Cell Supplemental Tool***



- ☐ Verify that no additional SC-WCFs or other antennas are at this location. If Yes, site is to be rejected. If no, site can be approved.
- ☐ Verify that no other SC-WCFs exists near this site. If one does exist, a separate power source will be required.
- ☐ Verify that the correct Street Light and existing attachments match the details shown on the MSP. Dimension shown shall comply with actual field conditions.

5.2 Please use the City's Small Cell GIS Portal as a supplemental tool to determine available right of way assets and potential conflicts.

<https://sandiego.maps.arcgis.com/apps/webappviewer/index.html?id=8b0a2aee7a354744a3d1c42b83ab3e01>

6. Construction Plan (DS-3179).

The following is a list of the minimum information to be provided on the construction plan:

For current construction plan template:

<https://www.sandiego.gov/sites/default/files/dsdds3179.pdf>

6.1 Title Sheet

- ☐ Vicinity Map must be shown on the Construction Plans. For information on how to prepare a vicinity map, see Information Bulletin 122:

For information on how to prepare a vicinity map, see Information Bulletin 122: <https://www.sandiego.gov/sites/default/files/dsdib122.pdf>

- ☐ Key Map shall reference sheet number(s) to clearly identify the proposed work location(s) that correspond to the sheet number.
- ☐ Legend shall list all proposed/existing items with the current standard drawings and symbols.

Current Standard drawings:

https://www.sandiego.gov/sites/default/files/standard_drawings_2018_edition_effective_january_1_2019_2.pdf

6.2 Monument Street Preservation Certification

- ☐ The Monument Preservation Certification shall be completed and signed by a Licensed Land Surveyor or a Registered Civil Engineer who is authorized to practice land surveying (RCE # must be 33965 or lower).

6.3 Street Excavation Table

- ☐ List each trench in separate lines for multiple trenches in one street.
- ☐ Street classification, refer to the Community Plan:
<https://www.sandiego.gov/planning/community/profiles>
- ☐ Last street overlay date, refer to The Street Asphalt Overlay History Table:
<https://www.sandiego.gov/street-div/services/roadways/resurface>
- ☐ Influence Area, refers to San Diego Municipal Code section 62.1208.
<http://docs.sandiego.gov/municode/MuniCodeChapter06/Ch06Art02Division12.pdf#page=7>
- ☐ Coordination and conflict check in Accela ROW for active projects and Moratorium determination. (For City Staff)

6.4 Average Daily Traffic Count Table (ADT) (Not required for the initial submittal)

6.5 Traffic Control Plan

- ☐ All work in the public ROW requires a Traffic Control Permit. Franchise utility companies will obtain via MOU. Any telecommunication company that is not a franchise is required to submit a traffic control plan with a right of way permit.

6.6 Striping and Street Light Notes

6.7 Environmental and Landscaping Notes

6.8 Utility Details

6.9 Improvement Plan/Plan View sheet:

- ☐ Identify right of way line, curb line, and street centerline.
- ☐ Identify street names.
- ☐ Identify the curb to property line distance and sidewalk width.
- ☐ Show designated bike lanes. Narrow trenches are not allowed in bike lanes per SDG-117 except micro trenching per SDG-165. When excavating in a bike lane, please add a note for contractor to grind and overlay full width of bike lane per SDG-106.

- ☐ Identify the distances from edge of trench of proposed utility line to face of curb, water lines, sewer lines, and any other dry utilities near the vicinity of the project.
- ☐ Identify all existing utilities (wet and/or dry) within the street.
- ☐ Identify all existing public and private improvements within the parkway area where excavation is proposed, such as driveways, utility boxes, fire hydrants, trees, curb ramps, street signs, etc.
- ☐ Identify vertical clearance between proposed utility line(s) and existing utility line(s) at each crossing locations.

Sample format:

EX. 10" A.C. WATER @ 3' BELOW GRADE PER DRAWING NO. XXXXX-X-D. NEW CONDUITS WILL BE PLACED BELOW/ABOVE EXISTING PIPE. MAINTAIN A MINIMUM 12" VERTICAL CLEARANCE.

- ☐ Identify the minimum horizontal and vertical clearance between City Mains and proposed utility conduit:

- Horizontal Clearances:
 - ✓ 10 feet to Sewer Mains; 5 feet in alleys
 - ✓ 10 feet to Recycled Mains
 - ✓ 5 feet to Water Mains
 - ✓ 5 feet to all valves
 - ✓ 5 feet to Storm Drains
 - ✓ 5 feet to Storm Drain Structures
 - ✓ 1 foot to other telecom and gas utilities
 - ✓ 5 feet from existing street tree
- Vertical Clearances:
 - ✓ 1 foot to all City utilities.

NOTE: If minimum separation cannot be met, an approval from the respective asset owner is required.

- ☐ Identify separation distance (from edge to edge) between existing improvements and proposed utility conduit/box.
- ☐ Identify the minimum required 3' separation between proposed trench and the face of curb.
- ☐ Identify the minimum 4' wide ADA Path of Travel between above ground utility structure(s) and the edge of Path of Travel/sidewalk. Handholes shall not be in the Path of Travel.
- ☐ Identify the minimum required 24" clearance between the replacement/new pedestal and face of curb in accordance with Standard Drawing M-21 and SDM-109.

- ☐ Identify the minimum required 3' separation between any above grade utility structure(s) and existing driveway flare in accordance with standard drawing, SDG-164.
- ☐ Any above grade obstruction 3 ft or greater in height that are placed at intersections or driveway shall evaluate sight distance requirements per AASHTO Standards and Land Development Code §113.0273.

Refers to San Diego Municipal Code §113.0273, "Measuring Visibility Area."

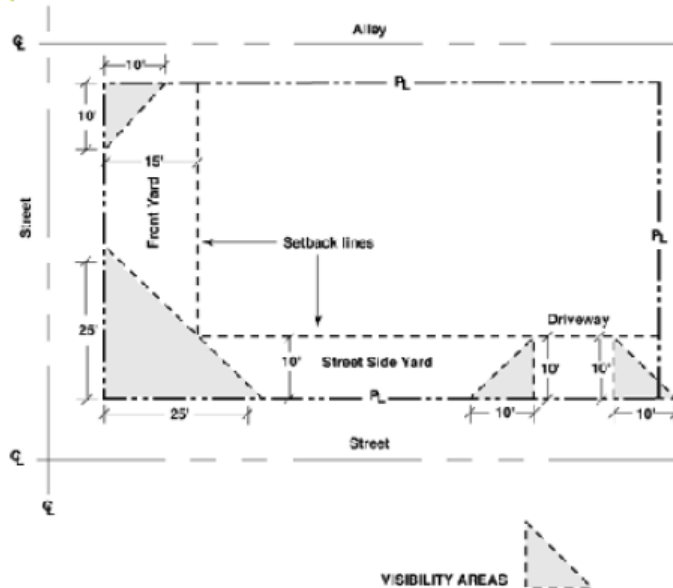
<http://docs.sandiego.gov/municode/MuniCodeChapter11/Ch11Art03Division02.pdf>

Typical Distances Used to Measure Visibility Areas:

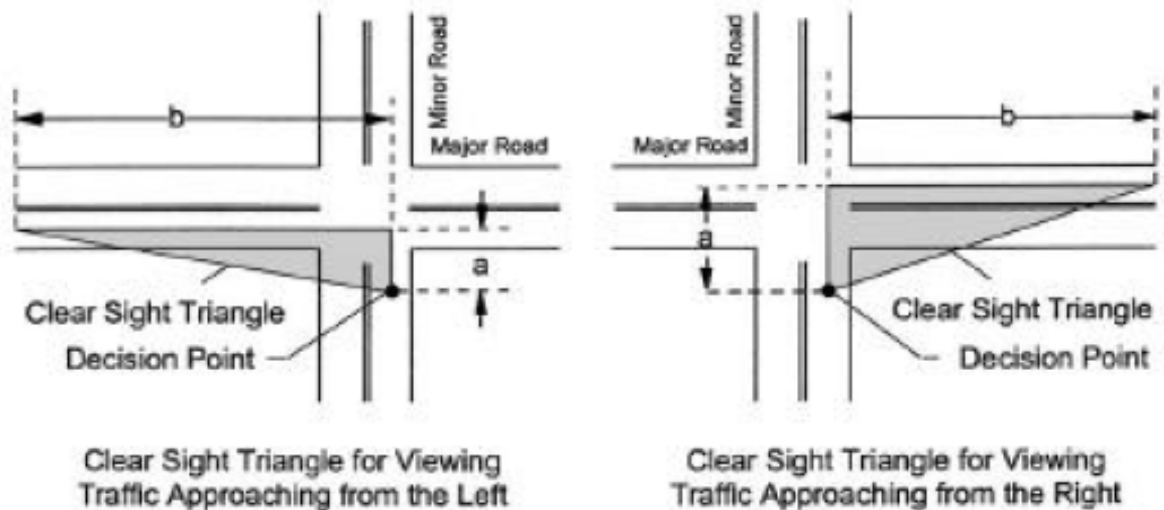
1. For visibility areas at the intersection of streets, two sides of the triangle extend along the intersecting property lines for 25 feet and the third side is a diagonal line that connects the two.
2. For visibility areas at the intersection of a street and alley, two sides of the triangle extend along the intersecting property lines for 10 feet and the third side is a diagonal line that connects the two.
3. For visibility areas at the intersection of a street and alley, two sides of the triangle extend along the intersecting property lines for 10 feet and the third side is a diagonal line that connects the two.
4. Where the required front and street side yards measure less than 25 feet when combined, that measurement or 15 feet, whichever is greater, establishes the visibility area at the street intersection.

Diagram 113-02SS

Visibility Area



Refers to §9.5 Intersection Sight Distance of AASHTO Greenbook:



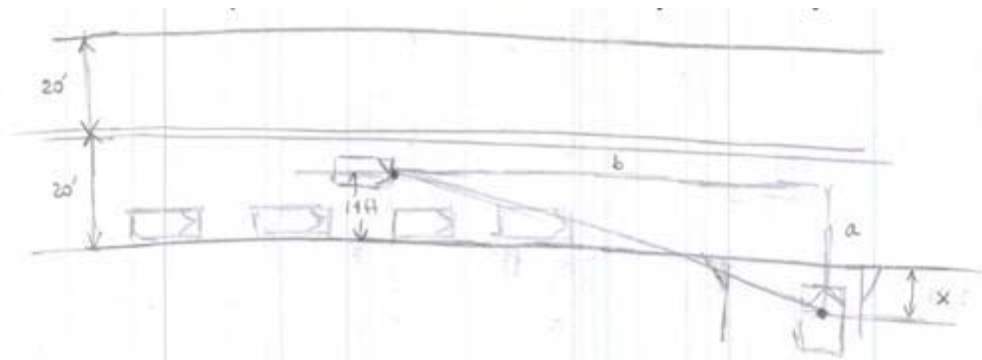
Clear sight triangles concept

AASHTO presents different situations based on type of traffic control at the location. The recommended dimensions of the sight triangles vary with the type of traffic control used at an intersection because different types of control impose different legal constraints on drivers and, therefore, result in different driver behavior.

The typical AASHTO cases evaluated are as follows:

1. Case B—Intersections with stop control on the minor road or driveway
 - Case B1—Left turn from the minor road
 - Case B2—Right turn from the minor road
 - Case B3—Crossing maneuver from the minor road
2. Case D –Signal control (right turn on red)
3. Case F –Left turns from major road

Case B1 example –left turn from driveway onto major road



SL = 30 mph, 85th percentile speed = 34 mph
Two-lane collector with parking

$$b = 1.47V_{major}t_g$$

$t_g = 7.5$ seconds (passenger car
turning left onto two-lane
highway with grade of 3% or less)

where V_{major} = Design speed or 85th percentile
speed on major road (mph)

t_g = Time gap for vehicle to enter
major road

x = Distance from driver's eye to
edge of roadway

$$b = 1.47(34)(7.5) = 374.85 = 375 \text{ ft}$$

- ☐ Identify all survey monuments (inclusive of vertical benchmarks and survey off-sets).
- ☐ Identify all existing traffic loops.
- ☐ Identify Maintenance Assessment District (MAD) Areas on plans. Plans shall identify any landscape, irrigation lines or other appurtenances being removed and replaced. For MAD areas: <https://www.sandiego.gov/park-and-recreation/general-info/mads>
- ☐ Identify the Plant Establishment Period (PEP) if project proposes landscape replacement in MAD areas. See City Supplement (WHITEBOOK) section 801-6, 'MAINTENANCE AND PLANT ESTABLISHMENT. The Landscape section and MAD section shall determine the PEP. A review cycle for MAD maybe added by the Drainage and Grade reviewer.

I Hereby Acknowledge and certify that:

- 1. I am accountable for knowing and complying with the governing policies, regulations and submittal requirements applicable to this proposed development(s);**
- 2. I have performed reasonable research to determine the required documents and information for the proposed project, and that failure to accurately identify the required documents and information could significate delay the permitting process.**
- 3. If required documents or plan content is missing, project review will be delayed, and**
- 4. This submittal package meets all the minimum submittal requirements contained in the checklist provided in this document.**

Name: _____

Signature: _____

Date: _____

