

**REQUEST FOR PROPOSALS (RFP)**  
**FOR**  
**CITYWIDE FIBER-OPTIC BROADBAND NETWORK CONSULTING**  
**SERVICES**

**RFP NO.: 17-111**



**CITY OF SANTA ANA**  
**Santa Ana Public Works Agency**  
**20 Civic Center Plaza**  
**Santa Ana, CA 92701**

**Edwin "William" Galvez P.E.**  
**Project Manager**  
**(714) 647-5653 Office**  
**wegalvez@santa-ana.org**

Approved for Release:

 **FOR F.M.**

Fred Mousavipour  
Executive Director  
Public Works Agency

**KEY RFP DATES (Subject to change at discretion of City):**

Issue Date:	September 15, 2017
Letter of Intent:	October 12, 2017
Pre-Proposal Meeting (Optional):	April 4, 2016 at 2:00pm
Deadline for Requests for Information:	October 19, 2017
Proposal Due Date:	October 26, 2017 at 3:00pm.
Presentation/Interviews:	November (14-16), 2017
Projected Award Date:	January 16, 2018



## **NOTICE INVITING PROPOSALS**

NOTICE IS HEREBY GIVEN that proposals will be received from qualified firms for Citywide Fiber-Optic Broadband Network Consulting Services.

Responses to this Request for Proposals (RFP) will be accepted until Thursday October 26, 2017 at 3:00 p.m. Proposals received after this date/time will not be considered. It is the responsibility of the proposer to ensure that any proposals submitted have sufficient time to be received by the City of Santa Ana prior to this proposal due date and time.

Proposals shall be enclosed in a sealed envelope and marked clearly with following information, formatted as follows:

**“SEALED PROPOSAL FOR  
CITYWIDE FIBER-OPTIC BROADBAND NETWORK CONSULTING SERVICES  
RFP NO. 17-111  
IN THE CITY OF SANTA ANA  
DO NOT OPEN WITH REGULAR MAIL.”**

City of Santa Ana  
Attn.: Armando Fernandez  
Public Works Agency;  
20 Civic Center Plaza; 3rd Floor Reception, Ross Annex  
Santa Ana, CA 92701

Proposals shall be mailed, hand delivered, or sent by courier service. Proposals shall NOT be sent via telegraphic, electronic or facsimile.

All notifications, updates and addenda will be posted on the City’s RFP Bid page at [www.santa-ana.org/bids-rfps](http://www.santa-ana.org/bids-rfps). Proposers shall be responsible for monitoring the site to obtain information regarding this solicitation. Failure to respond to required updates may result in a determination of a nonresponsive proposal.

**LETTER OF INTENT** - Interested firms shall submit a Letter of Intent of their pending proposal to the noted Project Manager by the required date as shown on the cover page of this RFP. Letters shall be forwarded via certified mail or email and shall include the following information:

1. Use formal company letterhead.
2. Indication of company interest in the RFP.
3. Acknowledgement of candidate's responsibility to monitor the City's website for any amendments or modifications to the RFP.
4. Provision of correct, complete contact information.



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## **I. INTRODUCTION / PROJECT DESCRIPTION**

### Nature of Work:

The City of Santa Ana is seeking an engineering design firm to provide Engineering Services. A detailed Scope of Work is included in the Appendix of this RFP as Attachment 1.

### Number of Proposals and Signature:

Five hard copies and one (1) digital file on labeled USB Flash Drive (or equivalent) of your proposal shall be signed by a company official with the power to bind the company and submitted to the City of Santa Ana. One (1) copy of your Fee Proposal shall be submitted.

The Statement of Qualifications shall be limited to a maximum of (10) double-sided pages (excluding front and back covers, section dividers and attachments such as resumes, forms). Font size shall be minimum 11-point Arial. Proposal exhibits shall be maximum 11" x 17".

### Proposal Evaluation and Rating:

The criteria for evaluating the proposals submitted will take the following items into consideration:

- |                               |     |
|-------------------------------|-----|
| • Firm/Team Experience        | 25% |
| • Understanding of Need       | 35% |
| • Relevant Project Experience | 25% |
| • Schedule                    | 10% |
| • References                  | 5%  |

The City has established a proposal review committee to evaluate proposers based on the response to the RFP, which includes adherence to outlined directions and format, and the City evaluation criteria set forth above. A final score will be calculated for each submitted proposal and used to rank the proposers.





Project Funding:

Project is funded thru different funds. Special conditions may apply. Refer to Attachments 1 (Scope of Work) in the Appendix of this RFP.

Prevailing Wages:

In accordance with the California State Labor Code, prevailing wage rates do not apply.

Term of Contract Agreement:

The City desires to enter into a contract with the selected firm for an initial 3 year term with a City option for 1, 2 year extensions. This term is outlined in the Standard Consultant Agreement, as contained in the Appendix of this RFP as Attachment 2.



## **II. INSTRUCTIONS TO PROPOSERS**

### **A. CITY RESPONSIBILITIES**

The City will provide information in its possession relevant to preparation of required information in RFP. The City will provide only the staff assistance and documentation specifically referred to herein.

### **B. PROPOSER RESPONSIBILITIES**

Point of Contact: The selected proposer will assume responsibilities for all services in its proposal. The selected proposer shall identify a sole point of contact with the greatest knowledge in regard to the required service operations and contractual matters, including payment of any and all charges resulting from the Agreement.

Evidence of Financial Capacity: Proposer may be requested to submit its most recent audited financial statement, evidencing proposer's financial capacity to fully perform the required services, including provision of equipment and personnel expenses over a ninety (90) day period. If said financial statement does not reflect full ninety (90) day operational capacity, proposer may include a letter of credit as evidence of supplemental capacity.

### **C. REQUEST FOR INFORMATION OR CLARIFICATION**

All questions or requested clarifications shall be made in writing via e-mail to the Project Manager (contact information as noted on the cover page to this RFP) no fewer than five (5) calendar days prior to the date and time set for opening of proposals. No verbal requests or responses will be accepted. Significant interpretations or clarifications will be addressed via addenda to this RFP.

### **D. ADDENDA**

Any changes in RFP from the date of release to date of submittal will result in an addendum or amendment. Notification of such addendum or amendment shall be posted on City's website, [santa-ana.org/bids-rfps](http://santa-ana.org/bids-rfps) as set forth in the Notice Inviting Proposals. Addenda shall become part of the agreement documents.

### **E. LICENSES & PERMITS**

The selected proposer shall be required to obtain a City of Santa Ana Business license within ten (10) business days of selection and must provide a copy to the City projects manager or designee prior to commencing any work in Santa Ana.

Additionally, Proposer will be responsible for obtaining any licenses/permits required by the Scope of Work.

### **F. INSURANCE**

The Selected Proposer shall provide the required evidence of insurance coverage as set forth in the Scope of Work within ten (10) business days after receipt of notice that the contract has been awarded. Failure to provide the required insurance certificates shall be cause for the annulment of the award and the forfeiture of the proposal guaranty.



#### G. PAYMENT INFORMATION PACKET

The selected proposer shall return a completed payment information packet within ten (10) business days after the successful proposer has received notice that the contract has been awarded. The packet is available on the City's website: [santa-ana.org/bids-rfps](http://santa-ana.org/bids-rfps).

#### H. PRE-PROPOSAL MEETING

Should a pre-proposal be scheduled, the date, time and location is identified on the cover page of this RFP. The meeting will include discussion of the project scope and a question-and-answer session. It is highly recommended that the Proposer's key team members attend this meeting. Significant interpretations or clarifications will be addressed via addenda to this RFP, as described above in "Section D: Addenda."

#### I. CITY RIGHT TO REJECT

The City reserves the right to reject any or all proposals submitted and no representation is made hereby that any contract will be awarded pursuant to this RFP or otherwise.

The City reserves the right to accept or reject the combined or separate components of this proposal in part or in its entirety or to waive any minor inconsistency, informality or technical defect in the proposal.

The City reserves the right to reject, replace and approve any and all subcontractors. All subcontractor(s) shall be identified in the response to the RFP. Subcontractors shall be the responsibility of the successful proposer and the City shall assume no liability of such subcontractors.

#### J. BID PROTESTS

Proposers with concerns or rebuttal of any staff determination of non-responsiveness or non-responsibility may submit, in writing within five (5) business days, to the Project Manager, any concerns regarding the RFP process or staff determination. Such writing shall be considered by the City Manager or his designated representative, and may be acted upon within five (5) business days. If no action is taken within such time, there shall be no change to the staff determination. The exercise by Proposer of its right to submit written concerns shall be a condition precedent to seeking judicial review of any award of a contract hereunder.



### **III. SUBMITTAL REQUIREMENTS**

#### **A. GENERAL**

- I. The number of Proposal Copies and signature is specified in:  
RFP SECTION I - INTRODUCTION / PROJECT DESCRIPTION.
- II. Deadline:  
Proposals are due to the City of Santa Ana at the date, time, and location specified in the Notice Inviting Proposals.

#### **B. PROPOSAL CONTENTS**

The proposal format and page limitation, if any, is specified in:  
RFP SECTION I - INTRODUCTION / PROJECT DESCRIPTION.

##### **I. STATEMENT OF QUALIFICATIONS**

1. Cover Letter – Proposals shall include a letter signed by a principal or authorized representative who can make legally binding commitments for the entity.
2. Contract Agreement Statement: Proposal shall include a statement outlining your concurrence or concerns with any and all provisions as contained in the Agreement attached herein as Attachment 2 in the Appendix.
3. Firm and Team Experience: Proposal shall include a profile of the firm's experience. Include resumes of project team/sub-consultants that will be providing services which outline their technical and design experience. At a minimum, this should include the project manager/principal agent, associates in charge when project manager/principal agent is unavailable, key personnel, firm size, and an organization chart identifying only those who will perform work for the proposed project and the percentage of each individual's time devoted to this project. The project manager/principal agent shall be the primary contact person to represent your firm and will be the person to conduct the presentation, if invited for an interview.
4. Understanding of Need: Proposal shall include an outline which demonstrates the firm's understanding of the work. This outline should include anticipated approach, tasks necessary for successful completion, deliverables, and suggestions or special concerns that the City should be made aware of. Identify any assumptions and/or exclusions used in preparation of the scope of work and associated fee estimate.
5. Relevant Project Experience: Proposal shall include a list of projects which your firm or personnel have completed within the last 5 years, including significant work with public agencies. Project information should include project description, year completed, client name, along with a person to contact and their telephone number.



6. References: Proposal shall include a listing of relevant projects with references for three public entities for which Proposer has performed similar work within the past five (5) years.

## II. SCOPE OF SERVICES AND SCHEDULE:

Proposal shall include a Scope of Services and Schedule which details the work phases to be completed, the tasks to be accomplished, the deliverables to be provided, and the schedule / timeline to complete the project, based upon the requested Scope of Work detailed in Attachment 1 of this RFP.

## III. FEE PROPOSAL:

The fee proposal shall be submitted concurrently with the technical proposal, but in a separately sealed envelope, clearly labeled as "Fee Proposal." This shall include the firm's Standard Hourly Fee Schedule, a table outlining the tasks and team hourly effort for each of the major tasks, and a Project Fee Schedule as outlined in the Scope of Work.

The fee proposal will not be opened until the proposals have been evaluated by the proposal selection committee. The City will select the consultant based on qualifications, and then negotiate a contract price based on available funding.

## IV. CERTIFICATIONS:

All forms shall be signed and included as part of the proposal submittal package.

# IV. PROPOSAL REVIEW (CONSULTANT SELECTION)

## A. EVALUATION AND RATING

The criteria for evaluating the proposals are specified in:

RFP SECTION I - INTRODUCTION / PROJECT DESCRIPTION.

## B. SELECTION

The committee may interview the top ranking proposers. The City will recommend award of the contract to the proposer who will provide the best value to the City. City reserves the right to begin negotiations and enter into a contract without interview or further discussions.

# V. CONTRACT AWARD

## A. REQUEST FOR COUNCIL ACTION

Following evaluation and rating by the proposal review committee, the Project Manager will recommend award of a contract to the proposer providing the best value to the City.



## **B. EXECUTION OF AGREEMENT**

The Scope of Services, Schedule, and Fees submitted in the proposal will be the basis of any negotiation of final terms which will lead to a completed agreement ready for execution based on the standard Agreement attached herein as Attachment 2 in the Appendix.

## **VI. IMPLEMENTATION**

### **A. KICK-OFF MEETING**

A kick-off meeting will be held after award of contract. Consultant and its team will meet with City of Santa Ana staff to conduct introductions, discuss scope of services, and implementation process.

### **B. NOTICE TO PROCEED**

Following the kick-off meeting, a formal Notice to Proceed (NTP) may be issued after the agreement is fully executed, and all required bonds, insurance documents and contents of the Information Packet have been received and approved.

For "On-Call" contracts, Consultant will be notified by individual City Project Managers on a case-by-case basis to request project/task specific proposals. Written NTPs will be then issued accordingly.

## **VII. PUBLIC RECORDS**

All data, documents and other products used, developed, or produced during response preparation of the RFP will become property of the City. All responses to the RFP shall become property of the City. Proposer information identified as proprietary information shall be maintained confidential, to the extent allowed under the California Public Records Act.

Proposals will become public record after award of contract. Proposer information identified as proprietary information shall be maintained confidential, to the extent allowed under the California Public Records Act.



## **Appendix ATTACHMENT 1 SCOPE OF WORK**

### **CITY OF SANTA ANA REQUEST FOR PROPOSALS FOR CITYWIDE FIBER-OPTIC BROADBAND NETWORK CONSULTING SERVICES RFP NO.: 17-111**

#### **Introduction and Background:**

The City of Santa Ana (the "CITY") through its Public Works Agency is requesting proposals ("Proposals") from qualified consultants ("Respondents") for City-wide Fiber-Optic and Broadband Network Consulting Services.

The purpose of the Proposal is to demonstrate the qualifications, competence and capacity of Respondent to perform the work or provide the services described in this RFP. The Proposal should demonstrate the qualifications of the Respondent and of the particular staff to be assigned to this project.

The CITY is the county seat and second most populous city in Orange County, California. The US Census Bureau estimated its 2011 population at 329,427, making Santa Ana the 57th most-populous city in the United States. Santa Ana is located in Southern California, adjacent to the Santa Ana River, about 10 miles (16 km) away from the California coast. Founded in 1869, the city is part of the Greater Los Angeles Area, the second largest metropolitan area in the United States with almost 18 million residents in 2010. Santa Ana is a very densely populated city, ranking fourth nationally in that regard among cities of over 300,000 residents (trailing only New York City, San Francisco, and Boston). In 2011 Forbes ranked the CITY the fourth-safest city of over 250,000 residents in the United States.

The CITY is preparing to embark on a significant project to develop and implement a City-wide Fiber-Optic and broadband network (the "Network"). The CITY has met with the following companies (the "Consultants") to gain an understanding of initial, broad, and general parameters for the Network and the project:

- Amusement Park
- GigaBitCity365
- iWire.

#### **Description of Work:**

The City of Santa Ana is soliciting proposals from a limited number of qualified firms for business consulting and technical services related to the planning, design, development, construction, deployment and marketing of a city-wide telecommunications and broadband networks utilizing





Fiber-Optic technology and related infrastructure (the “Network”).

The CITY intends the Network to be a fee-producing project in accordance with California Government Code section 5956 et seq. and the successful Respondent will assist the CITY with the planning and business consulting services described herein, up to and including the development and negotiation of a Memorandum of Understanding or some other contractual arrangement with a qualified vendor that will oversee the Project planning, construction and deployment, and management (Optional) of the Network.

### **Consultant Responsibilities:**

The scope of services to be provided generally includes the following tasks:

- A. A technical and business evaluation of and an opinion on the feasibility of a fee-producing project in accordance with California Government Code section 5956 et seq. for the planning, design, development, construction, deployment and marketing of a city-wide telecommunications and broadband network utilizing Fiber-Optic technology and related infrastructure (the “Network”) to bring Broadband connectivity to CITY facilities and Downtown government and businesses in an initial phase. Subsequently, other phases will need to include residents, businesses, and other governmental agencies, and educational facilities throughout the CITY. Major tasks include:
  - a. Assessment of City-owned assets that can be utilized for the City Network.
  - b. Assess the competitive landscape in Santa Ana and determine needs/gaps.
  - c. Provide interim guidelines for implementation of fiber infrastructure prior to completion of business analysis or master plan.
  - d. Business analysis for fiber system
  - e. Technical analysis of fiber system
  - f. Develop Santa Ana Fiber Master Plan
  - g. On-call support services to review proposals from vendors/operators
  - h. Provide analysis of grant opportunities
  - i. Provide Financing Models (fiber system funding)
- B. Assist in the development of a viable business plan for the Network given project priorities and timelines identified by City Staff (Citywide Fiber Network- Team). Address as necessary and appropriate to Respondent’s understanding of the Project the following:
  - Knowledge of the design of fiber-optic, telecommunications and broadband infrastructure,
  - Preparation of feasibility studies for local governments in technology-based infrastructure projects,
  - Substantial and documented industry knowledge and experience negotiating with telecommunication, broadband, cable, and/or wireless providers;
  - Experience in facilitating the development of Memoranda of Understanding (“MOU’s”) and Private-Public-Partnership Agreements (“PPP’s”) or other contract agreement models available;
  - Extensive knowledge and understanding of last mile networks and delivery methods using technologies that include wireless and fiber to the home (“FTTH”);
  - Proven ability to relate technical knowledge to all aspects of business modeling



for last mile network design, deployment methodologies, value chain segmentation, and pricing at every juncture between pure internet access and the offering of retail services;

- Knowledge and understanding of state and federal regulations, laws and decisions governing the telecommunications and broadband marketplace;

Assist in the development and negotiation of a potential Memorandum of Understanding or other contractual arrangement between the CITY and a qualified vendor for the design, development, construction, deployment, and management (Optional) of the Network.

Provide an opinion of probable construction cost for all the above tasks

Make recommendations to contact potential business firm(s)/sectors and conduct assessment to potential form partnerships resulting in financial advantages to the City.

While the full scope of work shall be negotiated in a Professional Services Agreement, the Respondent will be expected to fulfill, at a minimum, the services and technical requirements described above.

**Attachment 4 contains reference material which includes City staff research and mapping information that may be of interest for a fiber effort.**

**Appendix  
ATTACHMENT 2  
STANDARD AGREEMENT**

**CONSULTANT AGREEMENT  
CITY OF SANTA ANA**

THIS AGREEMENT is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2017 by and between \_\_\_\_\_, (hereinafter "Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California (hereinafter "City").

**RECITALS**

- A. The City desires to retain a consultant having special skill and knowledge in the field of:  
[Briefly describe expertise sought and the scope of work the consultant (engineering) services will perform.]
- B. Consultant represents that Consultant is able and willing to provide such services to the City.
- C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional consulting firm in the field.

**NOW THEREFORE**, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

**1. SCOPE OF SERVICES**

Consultant shall perform during the term of this Agreement, the tasks and obligations including all labor, materials, tools, equipment, and incidental customary work required to fully and adequately complete the services described and set forth in **Scope of Services - Exhibit A**, attached hereto and incorporated by reference. The Scope of Services shall include a Schedule for the Delivery of Services, which shall be delivered as scheduled, beginning upon the City's issuance of a Notice to Proceed.

**2. COMPENSATION**

City agrees to pay, and Consultant agrees to accept as total payment for its services for City, an amount not to exceed \$\_\_\_\_\_ in accordance to rates and charges identified in **Compensation - Exhibit B**, attached hereto and incorporated by reference, and in accordance with Section 18.

**3. TERM**

This Agreement shall commence on [enter a Start Date or "the date first written above"] for a number (#) yearterm with the option for the City to grant up to a number (#)-year renewal option(s)

exercisable by the City Manager and the City Attorney, unless terminated earlier in accordance with Section 15, below.

#### **4. INDEPENDENT CONTRACTOR**

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

#### **5. OWNERSHIP OF MATERIALS**

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subcontractors to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subcontractor prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

#### **6. INSURANCE**

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subcontractors, if any, to obtain and maintain insurance as described below:

- a. **Commercial General Liability Insurance.** Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of \$1,000,000 per occurrence, with \$2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, and representatives as additional insured(s); (b) be primary and not contributory with respect to insurance or self-insurance programs maintained by

the City; and (c) contain standard separation of insured's provisions.

- b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than \$1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.
- c. Worker's Compensation Insurance. In accordance with the provisions of Section 3700 of the Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than \$1,000,000 per accident.
- d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than \$1,000,000 per claim with \$2,000,000 in the aggregate.
- e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:
  - i. Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.
  - ii. Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.
  - iii. Certificates and policies shall state that the policies shall not be canceled or reduced in coverage or changed in any other material aspect without thirty (30) days prior written notice to the City.
  - iv. Consultant shall supply City with a fully executed additional insured endorsement.
- f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

## **7. INDEMNIFICATION**

To the fullest extent permitted by law, Consultant shall indemnify, defend and hold harmless City, its officers, agents and employees (collectively, the "indemnified parties") from and against any and all claims (including, without limitation, claims for bodily injury, death or damage to property), demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including, without limitation, attorney's fees, disbursements and court costs) of every kind and nature whatsoever (individually, a claim; collectively, "claims"), to any work performed or services provided under this Agreement arising out of, relating to or pertaining to the negligence, recklessness or willful misconduct of Consultant, its principals, officers, agents, employees, vendors, suppliers, contractors, subcontractors, anyone employed directly or indirectly by any of them or

for whose acts they may be liable for any or all of them. Notwithstanding the foregoing, nothing herein shall be construed to require Consultant to indemnify the indemnified parties from any claim arising from the sole negligence or willful misconduct of the indemnified parties. This indemnity shall apply to all claims and liability regardless of whether any insurance policies are applicable. The policy limits do not act as a limitation upon the amount of indemnification to be provided by the Consultant.

## **8. INTELLECTUAL PROPERTY INDEMNIFICATION**

Consultant shall defend and indemnify the City, its officers, agents, representatives, and employees against any and all liability, including costs, for infringement of any United States' letters patent, trademark, or copyright infringement, including costs, contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

## **9. RECORDS**

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

## **10. CONFIDENTIALITY**

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

## **11. CONFLICT OF INTEREST CLAUSE**

Consultant covenants that it presently has no interests and shall not have interests, direct or indirect, which would conflict in any manner with performance of services. Conflict may be further

specified in **Certifications - Exhibit C**, attached hereto and incorporated in this Agreement by reference.

## **12. DISCRIMINATION**

Consultant shall not discriminate because of race, color, creed, religion, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations and as further specified in **Certifications - Exhibit C**, attached hereto and incorporated in this Agreement by reference.

## **13. EXCLUSIVITY AND AMENDMENT**

This Agreement represents the complete and exclusive statement between the City and Consultant, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which is not embodied herein.

## **14. ASSIGNMENT**

Inasmuch as this Agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

## **15. TERMINATION**

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

- a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product(s) completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.
- b. Payment need not be made for work which fails to meet the standard of performance



specified in the Recitals of this Agreement.

## **16. JURISDICTION - VENUE**

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

## **17. PROFESSIONAL LICENSES**

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

## **18. PAYMENTS & INVOICES**

- a. Payment by City shall be made within 45 days (forty-five) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals which may reasonably be expected by City.
- b. Invoices should be submitted on the 15th of each month and shall include the following information at a minimum:
  - v. Consultant's invoice number and City's agreement number
  - vi. Beginning and ending dates for services
  - vii. City Project and/or Task Order number and/or name (if applicable)
  - viii. Work site address/location (if applicable)
  - ix. Tasks or deliverables completed and percentage (%) of total services completed.
  - x. Remaining Overall and Task Order budget available

## **19. MISCELLANEOUS PROVISIONS**

- a. Additional provisions, if any, are identified as Additional Provisions, **Exhibit D**, attached hereto and incorporated into this Agreement by reference.
- b. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

- c. All Exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

## 20. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City:

Clerk of the City Council  
City of Santa Ana  
20 Civic Center Plaza (M-30)  
P.O. Box 1988  
Santa Ana, CA 92702-1988  
Fax: 714- 647-6956

With courtesy copies to:

Fred Mousavipour Executive Director, Public Works Agency City of Santa Ana 20 Civic Center Plaza (M-21) P.O. Box 1988 Santa Ana, California 92702 Fax: 714- 647-5635	Sonia R. Carvalho City Attorney City of Santa Ana 20 Civic Center Plaza (M-29) P.O. Box 1988 Santa Ana, California 92702 Fax: 714- 647-6515
--	---

To Consultant:

First & Last Name Title Consultant Firm Name Address City, State, Zip Fax:
---

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set

forth above. For purposes of calculating these time frames, weekends, federal, state, County or City holidays shall be excluded.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the date and year first above written.

**ATTEST:**

**CITY OF SANTA ANA**

\_\_\_\_\_  
Maria D. Huizar  
Clerk of the Council

\_\_\_\_\_  
Cynthia Kurtz  
Interim City Manager

**APPROVED AS TO FORM:**

SONIA R. CARVALHO  
City Attorney

**CONSULTANT:**

\_\_\_\_\_  
John Funk  
Assistant City Attorney

\_\_\_\_\_  
(name)  
(title)  
Tax ID# \_\_\_\_\_

**RECOMMENDED FOR APPROVAL:**

\_\_\_\_\_  
FRED MOUSAVIPOUR  
Executive Director  
Public Works Agency

**Appendix**  
**ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT**  
**CERTIFICATIONS**

**CONSTRUCTABILITY REVIEW**

**NON-COLLUSION AFFIDAVIT**  
(Title 23 United States Code Section 112 and  
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed \_\_\_\_\_

State of California  
County of \_\_\_\_\_

Subscribed and sworn to (or affirmed) before me on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by \_\_\_\_\_, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

\_\_\_\_\_  
Notary Public Signature

Notary Public Seal

**Appendix**  
**ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION**  
**CERTIFICATIONS**

**CONSTRUCTABILITY REVIEW**

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm \_\_\_\_\_

Signed and Printed Name: \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

**Appendix**  
**ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION**  
**CERTIFICATIONS**

**CONSTRUCTABILITY REVIEW**

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.
6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.
7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: \_\_\_\_\_  
Title: \_\_\_\_\_  
Firm: \_\_\_\_\_  
Date: \_\_\_\_\_



**APPENDIX**  
**ATTACHMENT 3-4: DISCLOSURE OF PRIOR BUSINESS RELATIONSHIP(S) WITH**  
**CONSULTANTS**  
**CERTIFICATIONS**

**CITY OF SANTA ANA**  
**REQUEST FOR PROPOSALS**  
**FOR**  
**CITY-WIDE FIBER-OPTIC BROADBAND NETWORK CONSULTING SERVICES**  
**RFP NO.: 16-050**

DISCLOSURE OF PRIOR BUSINESS RELATIONSHIP(S) WITH CONSULTANTS

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

BIDDER is required to disclose below any and all existing or prior agreements, understandings or formal business relationship(s) with any of the Consultants identified on page 10 of the RFP document. The required timeframe for reporting is any time within the past five (5) years.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

Signed \_\_\_\_\_

State of California  
County of \_\_\_\_\_

Subscribed and sworn to (or affirmed) before me on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by \_\_\_\_\_,  
proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

\_\_\_\_\_



**Appendix  
ATTACHMENT 4  
ADDITIONAL PROVISIONS**

## **ATTACHMENT 4-1 COMPENSATION**

### **COMPENSATION**

Fee Proposal including hourly rates  
(from Consultant Proposal)

The total compensation may include a line item for the cost from the Fee Proposal, followed by a line item for any contingency, followed by a grand total not to exceed (NTE) Amount. This is what may be transferred to the front page of the contract.

**ATTACHMENT 4-2: CITY'S BACKGROUD RESEARCH AND MAPPING**

**FIBER OPTIC / INTERNET INITIATIVE BACKGROUND INFORMATION**

☐ **EXECUTIVE SUMMARY**

**List of Data Transport Modes**  
**Recommendation**

☐ **SANTA ANA INTERNET**

**Introduction**  
**Description of Data Carrying Hardware**  
**Goals & Objectives**  
**Options, Assets, Opportunities**  
**Why Santa Ana Data Transport?**  
**Timeline & Phases**  
**General Partnership Roles**

☐ **EXECUTIVE SUMMARY**

Speed and capacity of data communication is essential to sustain most activities in today's world. The internet, access to information, and high capacity transmission of information is necessary to support and compete in education, commerce, industry, and to sustain modern relevancy. Economic development, education, community advancement, and quality of life depend on data access.

Although the City of Santa Ana is by and large built-out and developed, there are unique opportunities to provide modern high capacity, high speed data communications.

Staff has been holding discussions with firms specializing in internet operations and has been cataloging and listing a number of options to consider, including the installation of fiber networks.

Tentatively, this Santa Ana data transport system could be called **SantaAnaINternet** or **SAINT**.

**List of Data Transport Modes**

Some of the general technology components to implement data transport include:

- Data Centers
- Fiber – Underground
- Fiber – Overhead
- Wireless Nodes
- Wireless AMI Metering
- Cell Phone 4G (will have 5G in 2018)

## Recommendation

1. Engage a Consultant who has the expertise in this technology's implementation. The consultant would play a role in performing, separately, a business evaluation and technical recommendations considering opportunities and risks specific to the City.

The consultant would help to:

Perform a Technical Feasibility

- Define Primary Alternatives
- Potential Partners
- Identify Focus Areas
- Advise the City on the Technology Recommendations and Details

Develop a Business Plan

- Prepare Feasibility Study
- Delivery Methods for Wireless & Fiber to the home ("FTTH")
- Develop Memoranda of Understanding for Private-Public-Partnerships
- Strategy for State & Federal Regulations on Telecommunications & Broadband

The consultant would advise the City on the technology details in partnering or engaging firms to deploy, implement, and operate SAINT.

2. Consider partnering only after Consultant above is on board.
3. Continue research of infrastructure that could be available for fiber backbone as SAINT network areas need refining.
4. Plan an initial deployment of SAINT. For discussion purposes, use a most aggressive proposal which would be a 12 month engineering and planning phase, followed by a 24 month construction phase

There are 49,000 total parcels and 90,000 total addresses within the City of Santa Ana. The ultimate goal would be to connect 100% of all parcels to SAINT. An initial goal would be to include 5,000 residential connections along with the initial business and commercial deployment.

After year three, the City could review revenue generated by SAINT to develop subsequent expansion.

## ❑ SANTA ANA INTERNET

### Introduction

The level and state of art advancements that are today available in terms of communication systems and construction technology make feasible the deployment of a robust state of the art wide broadband data transport system. The City of Santa Ana is uniquely positioned to participate in the planning, implementation, expansion, and ownership of such a system.

This is also true from an investment angle, particularly with cooperation and involvement by local government on a not-for-profit approach, or in a public-private partnership with venture capital for profit. Therefore, the unavoidable costs from disruption and construction impacts may be lessened by leveraging use and access to existing infrastructure, and moreover, today, be fully worthwhile since the economic and other positive communication and educational benefits would completely compensate for the system installation activities.

Computer communication and networking systems in Santa Ana are currently reliant on a mix of coaxial cabling, telephone line, and some wireless systems. Technology which includes fiber optics and next generation wireless is now mature enough to spur on investment that would transform this community. The benefit of having this type of data transmission capabilities would obviously incentivize economic growth and education, while also helping to improve our environment, mobility, and general quality of life.

First steps by staff have already been taken to plan and accommodate potential future data transport expansion. Staff has been holding discussions with firms specializing in internet operations and has been cataloging and listing broad options to consider. Staff has also initiated research on infrastructure that could be repurposed or retrofitted for a fiber installation in building out the network.

Staff has also begun to identify potential focal areas that could prove financially sustainable to implement an initial phase or a pilot area that would demonstrate the technology, implementation, costs, and confirm end user benefits. The success of initial phases would surely build the momentum to carry out the ultimate goals and objectives.

Therefore to market and championing the advancement of data access, some emphasis should be on the naming this effort. To initiate the discussion, perhaps the Santa Ana data transport system could be called **SantaAnaINternet** or **SAINT**.

To aid the discussion on data access, the following physical characteristics are introduced:



### *Initial End Users*

- A. Exhibit 1 (initial end-users) is a map which identifies some of the highest business densities (power use centers) existing in the City which would naturally serve as initial service areas. The map also identifies diagrammatic connections using primary corridors to run a data transport backbone alignment for these initial service areas. The backbone alignments would also serve to expand service areas or to add subsequent service area. Moreover, the primary corridors would not only house the backbone, they themselves would also provide service in an elongated density hub.

### *Potential Data Transport Backbone*

- B. Exhibit 2 (potential data transport backbone) is a map which shows existing fiber optic conduits. However, this existing Traffic Signal Fiber Optics (TSFO) communication system was designed and implemented exclusively for the City's Advanced Traffic Management System. As a result, conduit sizes and fiber cabling is limited in capacity and alignment to be expanded to use as a fiber backbone or even for other general data transport, and therefore the TSFO system is not conducive to other uses without major reconfiguration and modifications of the system. Moreover, while TSFO conduits could be intercepted, the FO cannot be easily accessed without interfering with TS programming and operations, including video feeds
- C. Exhibit 3 (potential data transport backbone) is a map which shows potential available water mains that could be modified to house fiber optic runs. This map hold the most promising potential for immediate installation of a backbone FO system.

### *Potential Data Transport Extensions*

- D. Exhibit 4 provides information on wireless data hubs that could be installed post-top on street light poles. The installation on poles would provide instant access to power, locations away from vandalism, purposeful height to wirelessly allow general access, and networkable to build redundancy. The ease of installation would allow instant system expansion and access to data where it would be otherwise cost prohibitive and/or physically inaccessible. There may be other devices and/or technology which could be deployed to augment wireless SAINT service.

Exhibit 5 is a map showing locations of SCE owned street lights that the city is currently negotiating to purchase. The streetlight could be used for wireless hubs described above.

- E. Staff has been exploring the use of wireless water meter technology. While that specific system makes sense for water meter data, the data capacity needs for water meters is very low in terms of data transmission and power requirements. Small batteries are proven to run metering for around 10 years. Standard AMI technology does not rely on direct power connectivity. Therefore, since access to power would not be the cost control factor, the meter data may be transported very inexpensively using radio frequencies, and this technology may could be interfaced to the SAINT system.

The metering system could play an important financial role in that the water meters would partially its fair share of wireless data hubs.

- F. While underground fiber optic should be considered as the ultimate SAINT network alignment, financial analysis would need to demonstrate there is a cost benefit of fiber superior to other technologies. Nonetheless, the following should be considered:
- *Fiber optic backbones may also be extended by “clipping on” to existing overhead utility wires. While this option exists, long term consideration should be given to whether or not overhead “clip-ons” are interim or permanent connections.*
  - *To expand and offer immediate access to the SAINT, there could be considered a temporary partnership with cell phone companies. However due to the direct competitive conflict that would ultimately be settled upon, that might not be recommended.*
  - *Another option could be to purchase and buyout existing “clip on” backbones.*
- G. It is recommended that a policy decision be confirmed on the use of existing and future city owned infrastructure and how partnership would be structured.

### **Description of Data Carrying Hardware**

- *Data Centers*  
This is a local hub with intense data storage capacity to support data transport and access.
- *Fiber – Underground*  
This mode is the backbone for primary and preferred method to support data transport and access. Alignment and placement is underground for physical security and aesthetic visual requirements. This data transport mode represents some of the greatest capital investments, therefore it requires careful planning implementation and cost effectiveness.
- *Fiber – Overhead*  
This mode can also serve as a backbone for data transport and access. Alignment and placement is overhead onto existing utility lines. This data transport mode is less costly than underground, and planning is less critical than undergrounding. This mode can be implemented as long term or interim options.
- *Wireless Nodes*  
This is an exciting new technology that provides a relatively broadband and high speed data transport access to locations that do not have hardwire access. The nodes provide a network of wireless routers that extend internet connectivity and other additional features. Power access is provided via localized street light posts, therefore not requiring any other hardware, therefore costs are relatively lower than other technologies. This mode can provide immediate access as an interim option, and the data transmission details can help with planning long term fiber alignments.

- *Cell Phone 4G (will have 5G in 2018)*

This data transport mode is available today but has limited capacity and speed, and it is also very expensive. In addition, some of today's wider broadband and higher data capacity speed requirements cannot be supported with this mode. 5G technology may relieve some of these limitations, but will nonetheless be expensive. While this mode is immediately available, the end user cost is limiting wide use in Santa Ana.

## **Goals & Objectives**

This brief is intended to provide overarching goals and objectives so that proper consideration could be given to integrating high speed/high capacity data transmission with the city's strategic goals. Perhaps it can serve to spur on more thought and help guide outside, joint, or sole efforts by the city to provide high capacity/high speed data communication, known as "gigabit" capacity, today's standard which is set at 1 gigabyte of data per second.

The following general program goals are listed without consideration to specific equipment, vendors, or technology. The order is not in any sort of priority.

1. The Program goal aims to provide affordable, next-generation broadband data access to businesses and homes throughout the City of Santa Ana.
2. Development and implementation should consider an outline of a locally-owned or a public-private partnership for next-generation broadband network operated openly and independently.
3. The program must result in a system that is long-term financially self-sustaining, and if developed wholly as city owned venture, it should set 100% of the profit/yield that is generated to stay in the City of Santa Ana.
4. If the City of Santa Ana develops high speed/high capacity data communication system, it could therefore function as a data communication transport utility separate and distinct from the services provided over it.
5. The data communication transport system must be scalable so that new, more demanding technologies that are launched in the future, whether audio, video, or other, may be supported.
6. The goals and objectives must help guide an approach so that the Santa Ana community gains access to high speed communication and data transfer. A wide spectrum of options should be considered so that further discussions do not exclude potential systems, equipment, technology, and implementation opportunities.
  - *Do nothing and rely on commercial carriers for data access and private investment for system expansion.*
  - *Initiate a small scale network that is both expandable in terms of area and in terms of wireless and other technology, and consider various transport technologies/infrastructure.*

- *Develop a number of full citywide plans to deploy a data transport network, with a phased implementation based on financially feasible blocks and expansion of data access.*

The following list of objectives to consider for a high speed/high capacity data transport and communication are provided to elicit discussion of the system capabilities and broad system requirements to transport data:

- *Universal coverage — use economies of scale to cover every neighborhood in Santa Ana, including those least likely to be served by commercial providers*
- *Extremely fast speeds — 1 gigabit per second (Gbps) available to all customers. Today Fiber networks can support 10 Gbps and wireless systems up to 1 Gbps.*
- *Extremely competitive pricing for business and the lowest costs for residential data access.*
- *Scalable network — ability to offer even faster speeds and expand to other areas in the future*
- *Efficient and economical to the owners and operators.*
- *Free or subsidized service to selected local institutions, e.g. schools*
- *Deploy City Internet to serve City assets, and use the savings to finance Data Transport expansion, dramatically increasing service, and further reducing costs.*
- *Provide for future expansion of our economy and create new business opportunities.*
- *Support economic development and smart living communities, and recognize that many businesses in Santa Ana, especially start-ups, will be run under new living standards and models.*
- *Earn popular support and continue Santa Ana's reputation for trend setting and being in the spotlight*
- *Establish a "win" for the whole community*
- *Sustainable, economically and environmentally*

## **Options, Assets, Opportunities**

Without fully describing each of the items listed below, the list is provided using a number of categories and subcategories to build a list of technology, cost components, and end user groups that could be combined to form various options to follow. The options can be used by the City to pursue opportunities for financing and partnering, and to engage expert consultants, vendors, and contractors/operators.

### *Technology*

- Data Centers
- Fiber Backbone (underground)
- Wireless 4G (5G) Cell Phone Service
- Wireless Data Transmitters/Repeaters

Fiber Data Distribution (underground)  
Fiber Data Distribution (overhead clip-ons)  
Other Transmitters/Repeaters  
Radio Frequency Transmitters

### *Infrastructure Resources*

#### Existing Infrastructure

Existing fiber conduit operating traffic signals (see attached)  
Existing underground street lighting conduits  
Abandoned water transmission mains and distribution mains  
Available street light poles  
Available overhead utility lines for clip on extensions

#### Scalable & Partial Costs (determined when investment grade study is performed)

Costs of trench line construction

Costs for fiber strands

- Main Runs
- Sub-Areas
- Sub-Data Hubs
- Wiring & Connections
- Programming
- Focus Area(s)

### *Opportunities*

Existing Government Center  
Existing dense business zones and commercial centers  
Industrial parks  
Retail centers  
Opportunities to Partner

### *Community Enhancements*

Community Centers & Parks  
Schools & Colleges, Grade, Middle, High

## **Why Santa Ana Internet for Data Transport?**

The City of Santa Ana is uniquely positioned to participate in the building of a City-wide network. The City has an excellent professional staff overseeing public interest in many relevant areas: Public Works, Finance, Information Technology and Economic Development, to name a few.

The City's outstanding credit rating enables it to borrow for public-interest projects at a reasonable rate, something of which private markets are not yet capable.

With leased connections among its many facilities up for renewal — or replacement — by 2017, the timing is excellent for a new City INET. And a new network wouldn't simply replace the old one. It would be far better and cheaper, so that Santa Ana could engage in "smart city" projects that reduce waste and improve service to its citizens. Another advantage: the City's interest in the public welfare leads to a more inclusive project than private companies, acting alone, would undertake. Lower income and less populated neighborhoods would not be left out. The City has already demonstrated their commitment — and a powerful partnership — by working with Santa Ana on projects offering free or subsidized Internet at affordable housing developments.

With the encouragement of City leaders, a high-tech ecosystem has developed with many small startups building businesses locally. These, as well as more traditional businesses, need good infrastructure to prosper.

Therefore SAINT would ensure that our citizens have access to robust broadband service which is as much a quality-of-life issue as providing clean drinking water, safe neighborhoods, and affordable housing.

### *Fuel Economic Growth*

Broadband infrastructure growth is essential to economic vitality. SAINT could be extended to businesses, including the growing sector of home-based businesses. Large-scale fiber deployment will encourage the growth of existing business, attract new companies to the area and raise property values throughout the City.

Support to the burgeoning tech community is another reason for SAINT. The tech community in Santa Ana is evolving rapidly, and laying the tracks for a world-class broadband infrastructure is essential to continued growth.

In the past, most startups emerging from or considering Santa Ana to be home have been either held back, have moved away, or never move in to begin with. This pattern is changing but to support a robust technology sector we need robust, scalable high capacity internet service.

Filling empty commercial real estate is yet another benefit to SAINT. Talent is leaving the area every day and there are many thousands of square feet of empty real estate that a fiber broadband network would help to fill.

Deployment of SAINT could result in office space downtown filled to 90%+ capacity since opening. In a modern economy, bandwidth is a utility as important as electricity or water, and modern business needs state-of-the-art Internet to thrive.

Take cars off the roads With unlimited broadband, more work can be done from home or from a local technology hub/coworking space. With more broadband, many of the 30,000 folks who drive the hill everyday can stay in Santa Ana -- either tele-commuting to jobs elsewhere, or working for new companies that spring up supported by the fiber.

Enhance Public Safety Fiber broadband opens myriad possibilities for feeding video security systems and other appropriate cloud-based solutions for improving public safety and police efficiency.

#### *Financial savings and stability*

Instead of paying for relatively low bandwidth from an out-of-state provider, by constructing local fiber households, businesses and local government facilities will have access to hundreds of times the Internet capacity, at a lower cost, with the security of working with a local provider, with local employees paying taxes and being active in the community. Medical and scientific uses A fully-deployed fiber network would make the transfer of research and medical data much easier, improving overall public health and opening up many possibilities for information sharing and collaboration with colleagues both local and worldwide. The availability of world-class Internet infrastructure will also attract research teams to the area. Libraries, community services and the arts Modern libraries and community centers are increasingly becoming digitally-connected gathering places. Large data pipes bring with them possibilities for live streaming of events, exchange of graphic files and digital art and even collaboration in real time.

#### *Education*

To a modern educational institution, the Internet is an essential tool. Santa Ana's plan would make 1 Gbps+ connectivity available to every school in the city at a fraction of the cost currently paid for inferior services.

#### *Bridge the digital divide*

There are still many households without adequate access to broadband, hampering our citizens' ability to do work, research, schoolwork or simple communication from their homes. Santa Ana aims to cover 100% of homes in the City and makes cutting-edge broadband available at an affordable price for everyone.

#### *Smart management of City infrastructure and assets.*

The "smart city" of the 21st Century in which assets and infrastructure are remotely managed and administrated requires an underlying communications network. Street lights, traffic signals, remote cameras, infrastructure sensors and telemetry allow the city to better adapt to situational factors as well as run smarter, faster and cheaper.

### Promote Santa Ana on the national stage

Nationwide, only 50 communities in 14 states offer gigabit service to homes. Google Fiber has received a lot of attention and inspired bidding wars from cities desperate for more bandwidth. Santa Ana has the opportunity to do the same thing, on a local level, with an independent locally-owned company and no need for investment from out of the area, or the involvement of large national ISPs.

### Hospitality, Hotels and Conference Centers

The hospitality industry is amongst the fastest-growing bandwidth consumers in the country. Guests bring smartphones, tablets, and laptops, communicate via video conferences, webinars and VoIP phone calls and watch streaming media via multiple devices. Any modern conference can expect to host hundreds of guests using three or more devices to connect to the Internet at all times. Without exceptional connectivity, none of these things can happen. Raise property values

There is market research suggesting that high capacity (gigabit) internet adds roughly \$5,250 to the value of a \$300,000 home.

### **Timeline & Phases**

While it was pointed out above that SAINT's most aggressive proposal would be 12 month engineering and planning phase, followed by a 24 month construction phase, this brief proposes an outline to consider a range of options including one in which Santa Ana Internet will act as Operator and primary Retailer of an Internet / Data Transport Fiber Project at least partially financed and ultimately owned by the City of Santa Ana. Therefore, below is a more detailed outline of steps which need consideration to deploy SAINT.

While the network would generate significant revenue, unlike a wholly-commercial enterprise, a city led venture or even a public-private partnership would emphasize universal coverage rather than focusing on commercial profit centers.

SAINT design and approach would focus on an efficient build-out of a network where consumers will have full choice over the content and services they want to consume in addition to their primary Internet service.

The project could be carried out in 4 phases: feasibility, planning/engineering, construction, and operation.

1. Feasibility (6 months)
  - Market analysis
  - Financial & Business modeling
  - Definition of roles



- Pre-engineering
  - Identifying current assets
  - Initial Network design
- 2. Planning & Engineering (12 months)
  - Additional detailed financial & business modeling
  - Full route Engineering — final scope determined
  - Detailed Network Architecture design
  - Hardware specifications
  - Service definition, pricing & schedule
  - Marketing planning
  - Identification of and negotiation with Suitable Contractors and Consultants
- 3. Construction (36 months)
  - Construction management
  - Infrastructure construction
  - Hardware deployment
  - Operational systems development
  - Legal work, contracts, leases, etc
  - Marketing campaigns
- 4. Operations (ongoing)
  - Order provisioning and installation
  - Billing
  - Customer service operations
  - Ongoing marketing
  - Further construction where required
  - Network Operations Center (NOC) management
  - Outside plant maintenance
  - System monitoring & Reporting

The above deployment spans 56 months, or just under 5 years.

### **SAINT General Partnership Roles**

The City of Santa Ana Fiber Project comprises three roles combining to serve the End User: Owner, Operator, and Retailer.

1. Owner

The Owner funds construction, and is ultimately responsible for maintaining the network by selecting an appropriate Operator. The Owner will own the physical asset when the obligation has been paid off. The Owner contracts with the Operator to oversee all aspects of building and running the network, including fees for maintaining the physical network, and receives the wholesale payments which the Operator collects from one or more Retailers. Once network revenue exceeds initial construction costs

and financing payments, excess revenue can be used to fuel expansion, prepay loan/bond costs or both.

As Owner, the City of Santa Ana will finance initial and ongoing construction of the network which will become an extremely valuable asset. Specifically:

- Engineering and planning costs
- Permitting
- Network construction
- Cost of network architecture hardware and software
- Cost of customer premise drops and customer premise equipment
- Additional network expansion expenses
- Oversight

## 2. Operator

The Operator is hired by the Owner to build and maintain the network, and manage technological and business operations. On behalf of the Owner, the Operator sells and supports wholesale network service to one or more Retailers who in turn use the physical network to deliver services to end users. The Operator does not sell to end user. The Operator sets wholesale prices and collects revenue from Retailers, just as a landlord might collect rent from a shopkeeper. All revenues collected by the Operator are turned over to the Owner. The Operator receives compensation from the Owner in the form of a pre-determined fee. Costs related to daily maintenance and customer service to the Retailers are borne by the Operator. Costs related to building and maintaining the physical network are borne by the Owner.

As the Owner-contracted Operator Santa Ana would be responsible for:

- Robust network design
- Pricing and packaging to Retailers
- Order management
- Order provisioning for Retailers
- Management of field operations
- Installation of premise fiber drops and building entrances
- Network Operations Center (NOC) management
- Network equipment maintenance
- Security
- Outside plant maintenance
- Routing through the path and provider diverse gateways
- Network monitoring, reporting and uptime maintenance
- Location Services & Underground Service Alert (USA) Administration
- Billing of Retailers
- Support/helpdesk/ticketing for Retailers

- Collecting and processing revenue
- Financial reporting
- Change management

### 3. Retailer

The Retailer purchases raw transit on the network and serves the end users — individual customers (residential or businesses) who use services which the Retailer provides over the network. The Retailer can provide Internet service, or telephone service, or video service — any content that an end user would wish to consume. The Retailer collects money from end users for services rendered — which could also include services that don't use the network or are peripheral to the network — but doesn't pass their revenue along to the Operator. Instead they pay wholesale fees set by the Operator for use of the network. Santa Ana would be one Retailer and the network will be designed in such a way as multiple Retailers can be brought onto the network at a pre-determined stage after construction is complete. Retailer is responsible for:

- Creating services for end users
- Marketing and outreach to end users
- Acquisition of customer connections
- Ordering customer services from Operator
- End user customer care
- Quality assurance for all end users
- Direct customer technical support
- Customer billing
- Payments to Operator
- Providing primary and redundant backhaul Internet connection for network

### 4. End User

The end user is the customer at the retail level who buys services for their home or office. The end user is billed by the Retailer and may not be wholly aware of the Owner or Operator. Ultimately, the end users pay for the network by paying the Retailer, who is then able to afford the fixed monthly fees to the Owner. A large number of end users is beneficial both as a community good and also as a financial resource which pays for the network. End users can be individuals in their homes, small- to medium-sized businesses who need a higher level of service, or large enterprises such as hospitals, government facilities or corporations requiring extraordinary reliability and bandwidth. The City network would amply serve all types. Residential customers are served primarily on month-to-month terms. Business and enterprise customers may have longer contracts, up to 3 years.



FIBER OPTIC INITIATIVE

POWER USE CENTERS

03/08/16

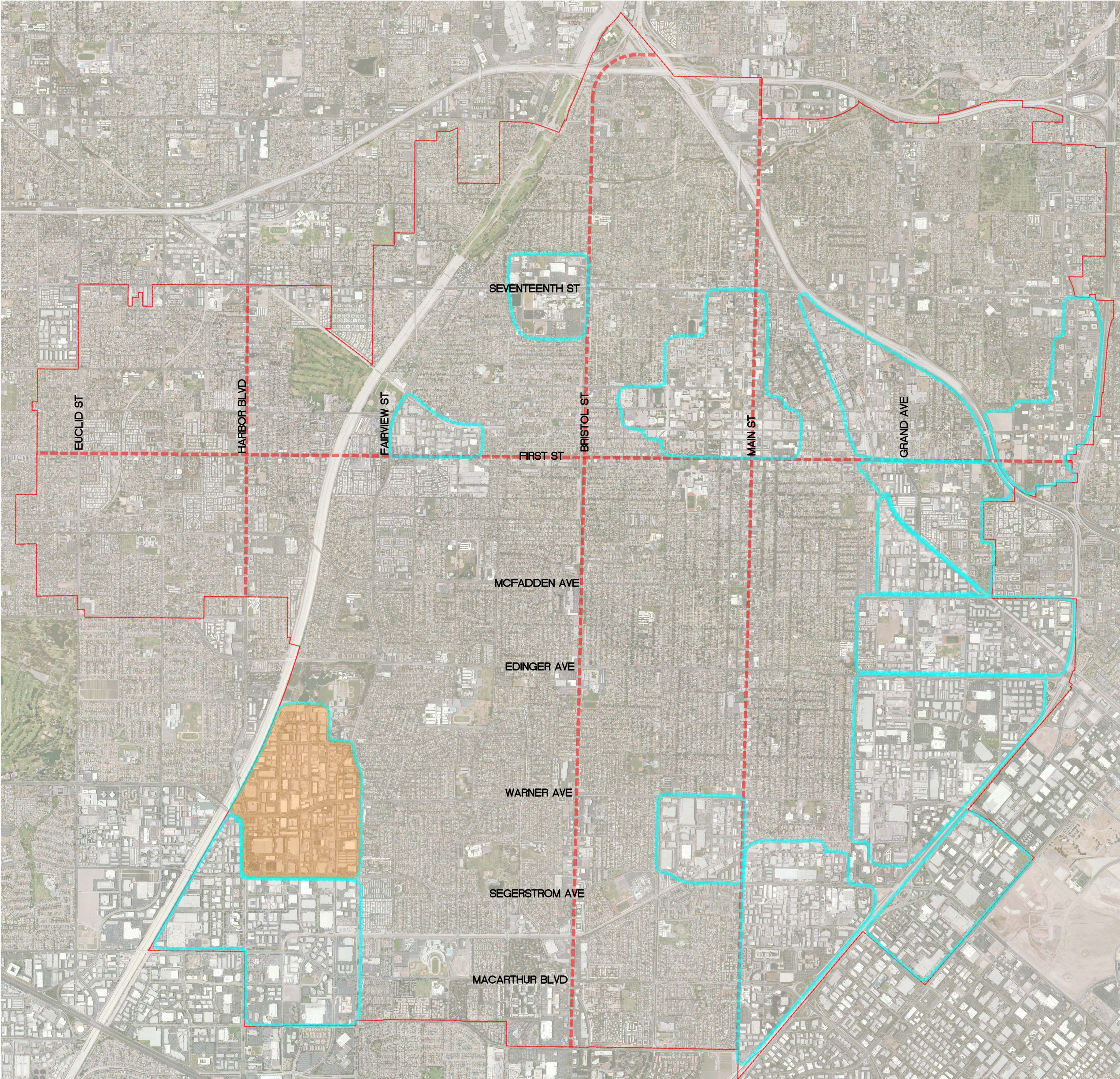


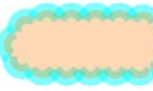
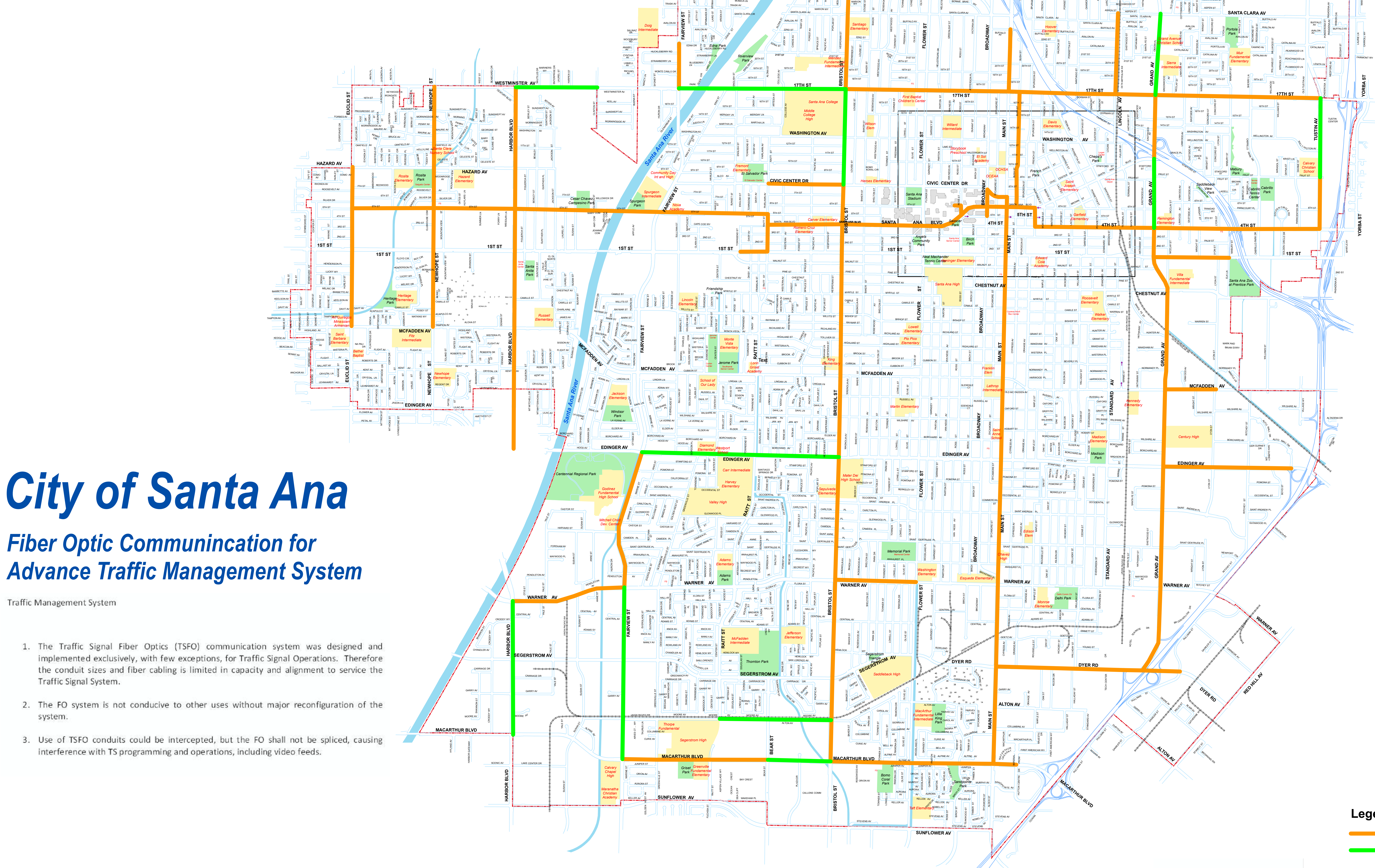
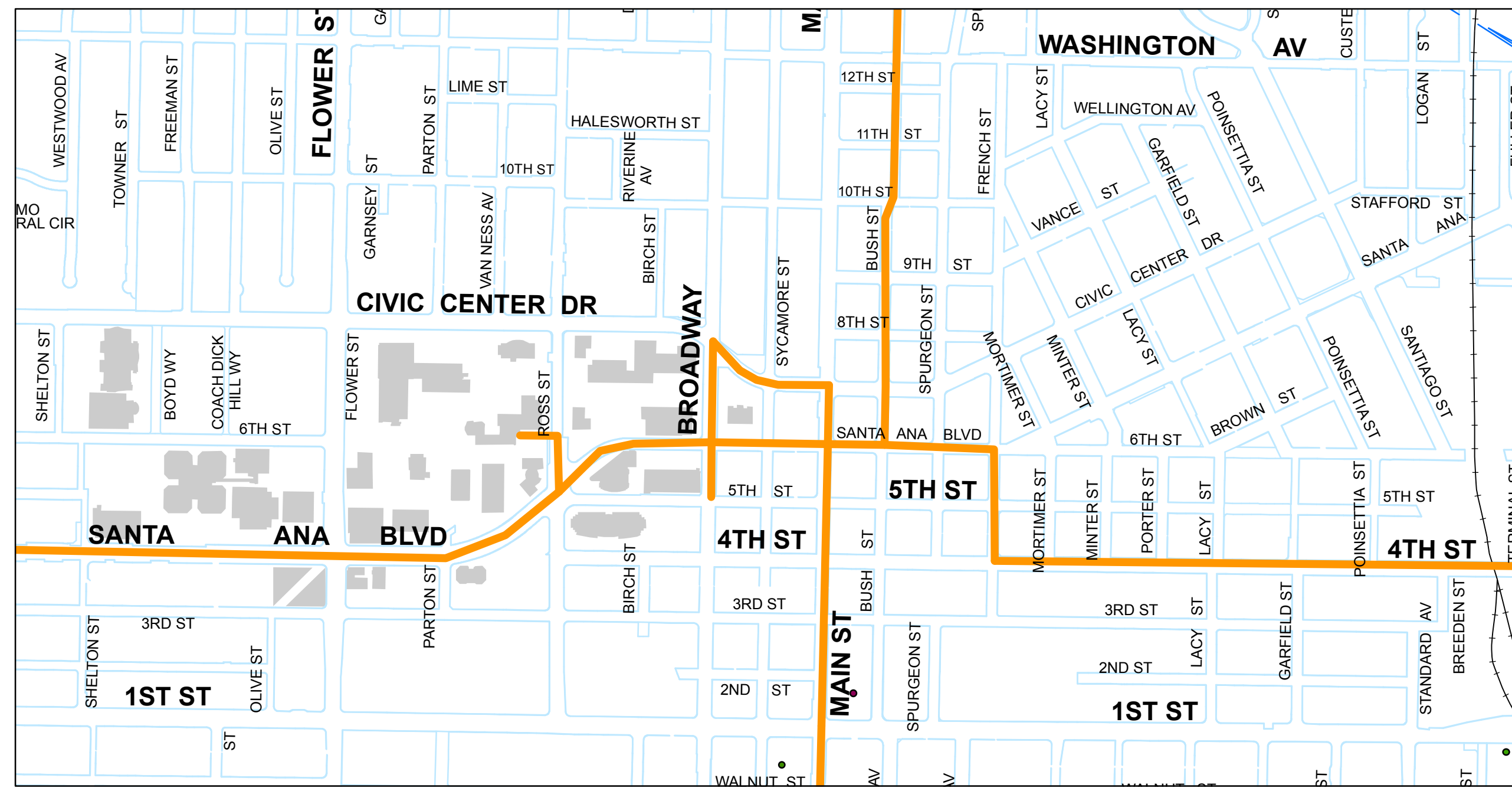


EXHIBIT 1

-  POWER USE AREA
-  FIBER BACKBONE ALIGNMENT
-  WARNER INDUSTRIAL COMMUNITY  
FUTURE 2" OR 3" CONDUIT FOR FIBER





# City of Santa Ana

## Fiber Optic Communication for Advance Traffic Management System

### Traffic Management System

1. The Traffic Signal Fiber Optics (TSFO) communication system was designed and implemented exclusively, with few exceptions, for Traffic Signal Operations. Therefore the conduit sizes and fiber cabling is limited in capacity and alignment to service the Traffic Signal System.
2. The FO system is not conducive to other uses without major reconfiguration of the system.
3. Use of TSFO conduits could be intercepted, but the FO shall not be spliced, causing interference with TS programming and operations, including video feeds.

**Legend**  
 Fiber (EXISTING)  
 Fiber (FUNDED)



# City of Santa Ana Water Mains

Information Dated: February 17, 2016

— Water Mains Installed 1980 and Later

**Notes:**

- 1. The water mains shown herein indicate the collection of water distribution installations since 1980. The collection provides a strong indication of the presence of abandoned water mains in the same general alignment as the new main replacements.
- 2. Abandoned water mains potentially represent the possibility to rehabilitate the pipes to serve as a casing to house FO or hardwire for data transport purposes as a FO backbone system.

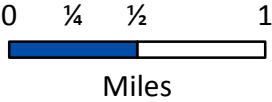


Exhibit 3

## City Wide WI-FI Network

- Wi-Fi Mesh Network
- Private or Public Wi-Fi Network
- "Hot Spot" Range 1000 Feet
  - ✓ Current Wi-Fi 802.11AC at 1.6 Mb
  - ✓ Designed to Handle 2.8 Mb
- GPS and Digital Location
- Secure - 2048 bit Encryption
- AMI Application



## Additional Functionally

- No additional or special equipment needed
- Designed to operate in mesh-network configuration
- Data backhaul can take place using Wi-Fi or LTE
  - ✓ "Long Term Evolution"
  - ✓ Designed to support roaming Internet access via cell phones and handheld devices
- Each node is a wireless gateway
- If fiber-optic network available, the network can utilize fiber as the most efficient/fastest data backhaul method
- If fiber is available, physical tie-in to the fiber only has to take place at a few points in order to give your entire network the benefit of the accelerated data transmission that fiber optic provides



## Cellular / Mobile Carriers

- Ready for Mobile Carriers
- Revenue Generation from Cellular Carriers
- Path to a City-Wide Micro Cell System
- "Last Mile" Content Delivery System (*final leg of telecommunications*)
- Fiber Optic Access



## Energy & Environmental

- Energy
  - ✓ Robust Photocell Features
  - ✓ Advanced Lighting Control
  - ✓ Energy Reduction with Demand Response
  - ✓ Sub-Metering at Each Light Pole
  - ✓ Perfect for Car Charging Systems at Pole
  - ✓ Utility Grade Meter
- Environmental
  - ✓ External Environmental Sensors
  - ✓ Data Reporting on Air Quality
  - ✓ Temperature Monitor
  - ✓ Chemical Detection
  - ✓ Seismic Detection



## Durability

- "Made in America"
- Components Designed to last 100K hours 10 yrs
- Tested Device for 6 yrs
- Exterior Combination of Polycarbonate and Glass
- Tested for Extreme Heat, Cold and Salt Spray
- Same as Utility Box Encasements
- Compound Field Tested for 18 yrs
- 12 hour Battery Backup
- Weight ~1.5lbs
- Current Pilot Projects
  - ✓ San Jose, CA
  - ✓ Martinez, CA
  - ✓ Elk Grove, CA
  - ✓ Atlanta GA





## Easy Installation

No special design provisions required and the node will connect to all of the major manufacturer's light because the photo-cell receptacle is a standard design.

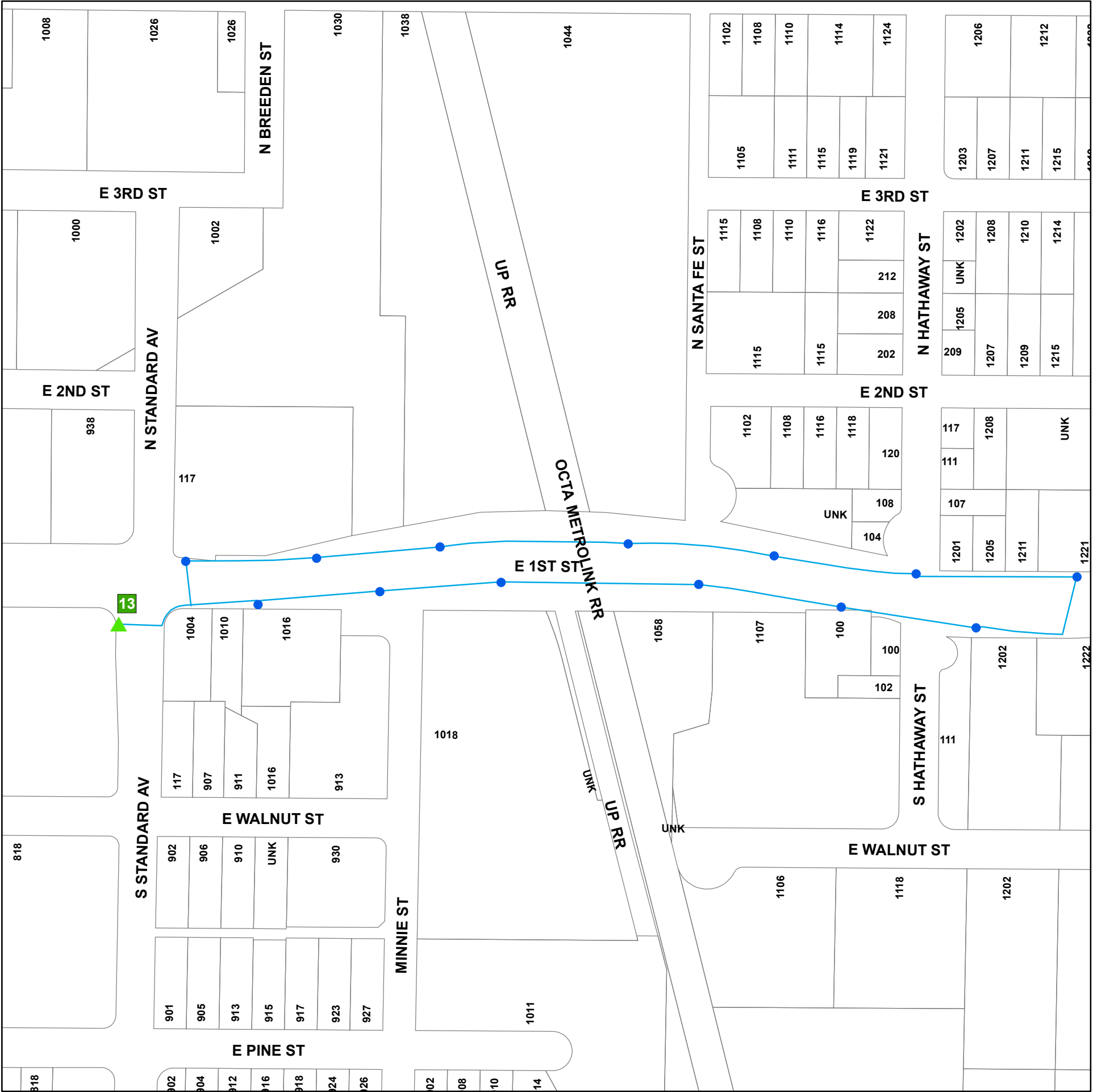
*Installed in 30 Seconds and Replaces Existing Photocell*



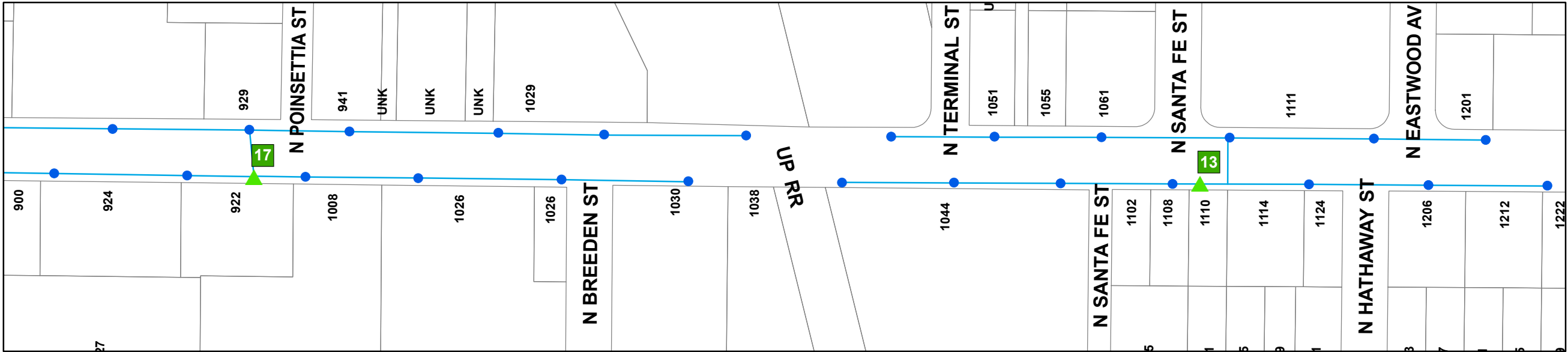
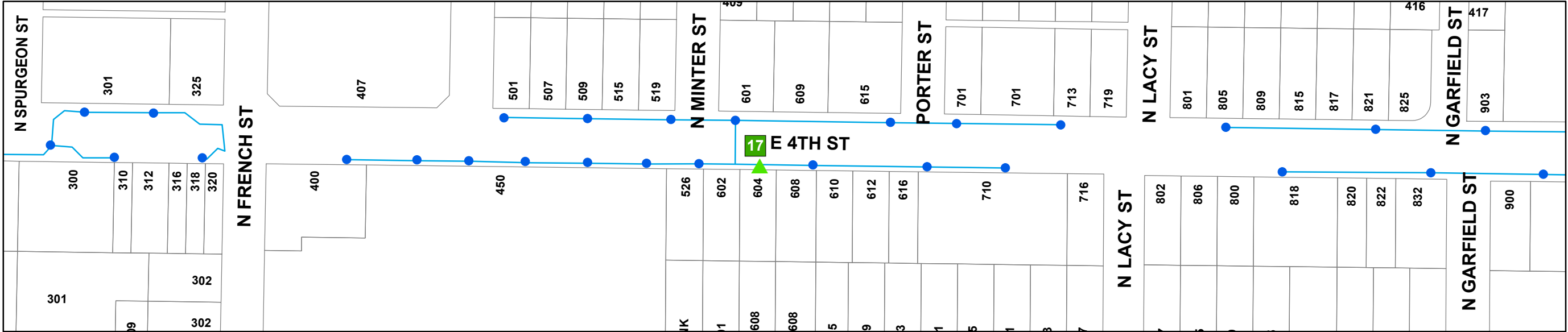
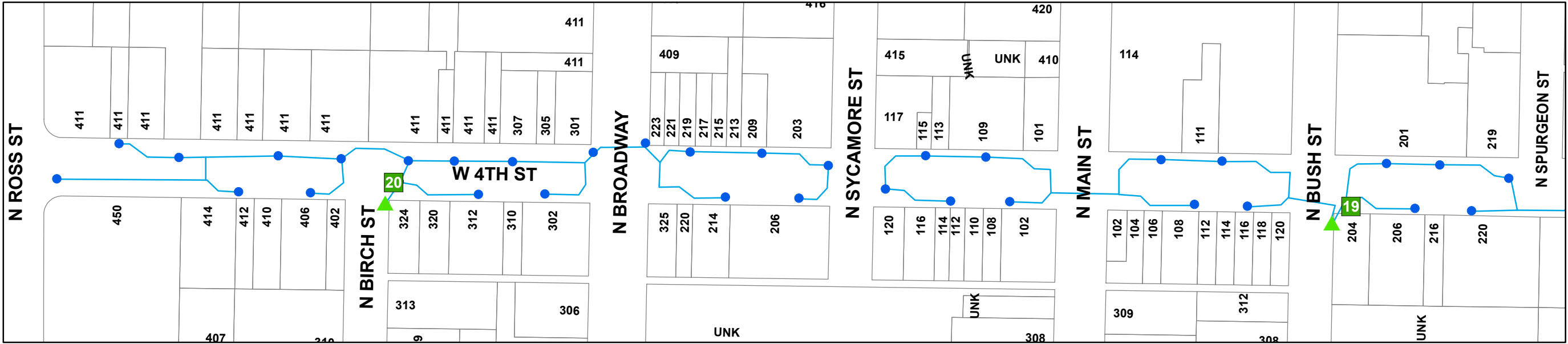
## Summary

- Only Fully Integrated Networking Solution
- Solution Contained in a Single Node Device
- Mountable in (30) seconds
- No Provisioning or Setup Required
- Multiple Departmental Uses
  - ✓ City Wide Wi-Fi+
  - ✓ Telecommunication Opportunities
  - ✓ Public Safety Cameras
  - ✓ Gun Shot Technology
  - ✓ Graffiti Detection
  - ✓ Emergency Alert Notifications
  - ✓ Smart Metering - Utility Bill Management

In summary, cities are built upon infrastructure, operations, and people. There are more demands on cities today than ever before. We understand your challenges and look forward to become a solutions company that can partner with any city to meet and exceed goals.



- Legend**
- Low Voltage Conduit
  - Light Fixture
  - Service Point
  - Light Count per SP



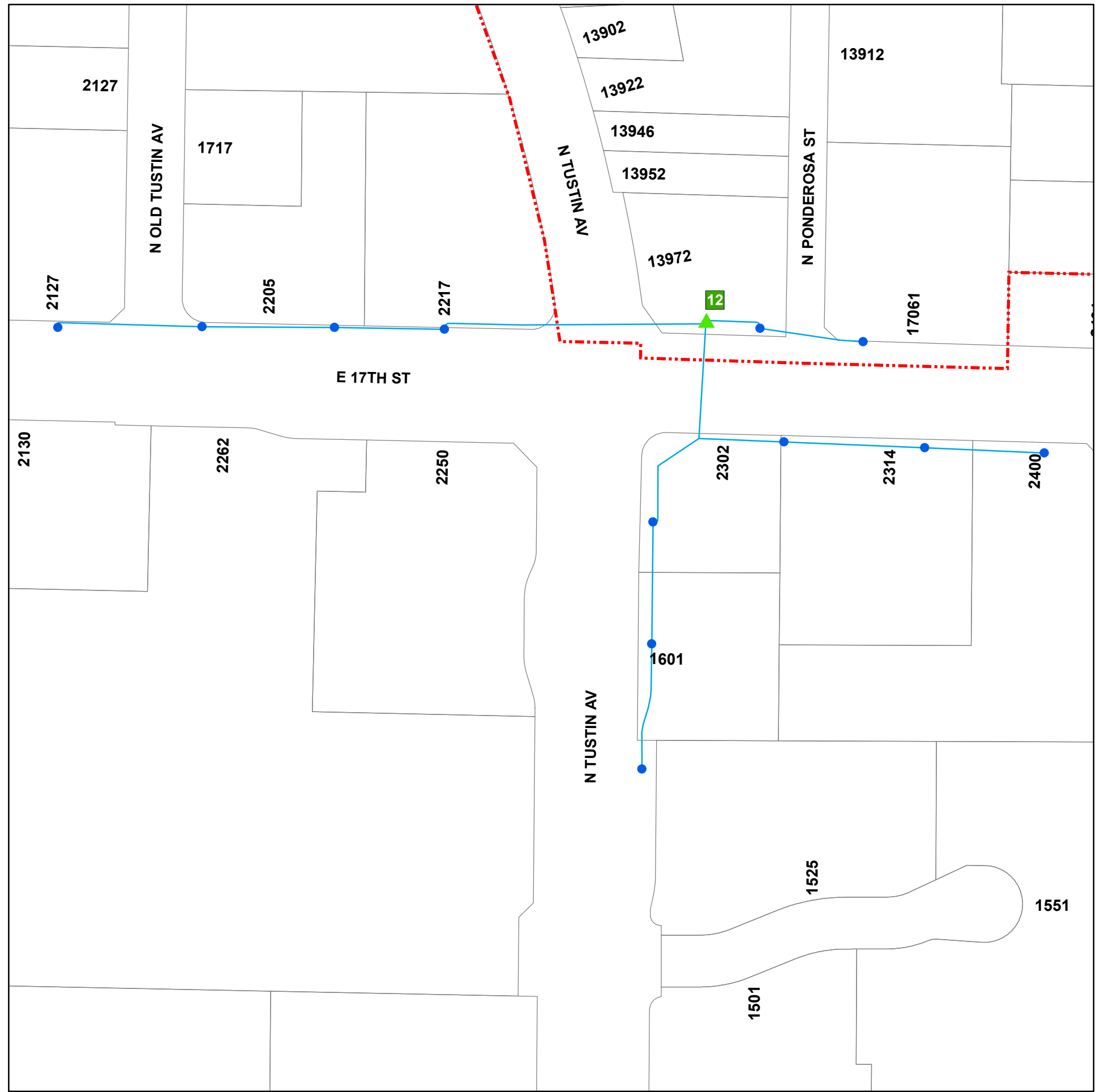
**Legend**

- Low Voltage Conduit
- Light Fixture
- Service Point
- Light Count per SP





Map Data June 2014 - PWA - GIS

4TH STREET

# TUSTIN & 17TH

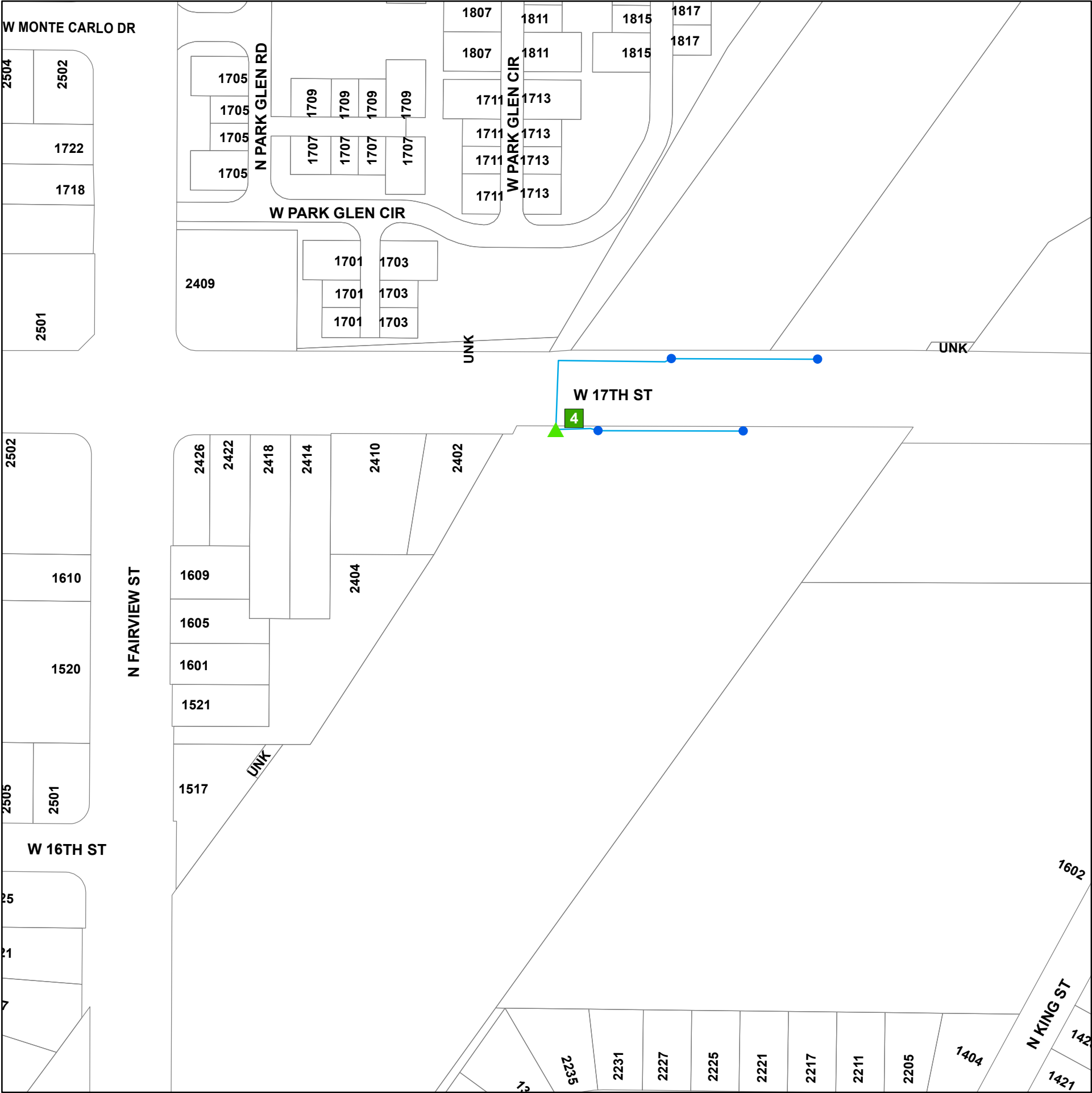


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-  Service Point
-  Light Count per SP



# 17TH ST BRIDGE



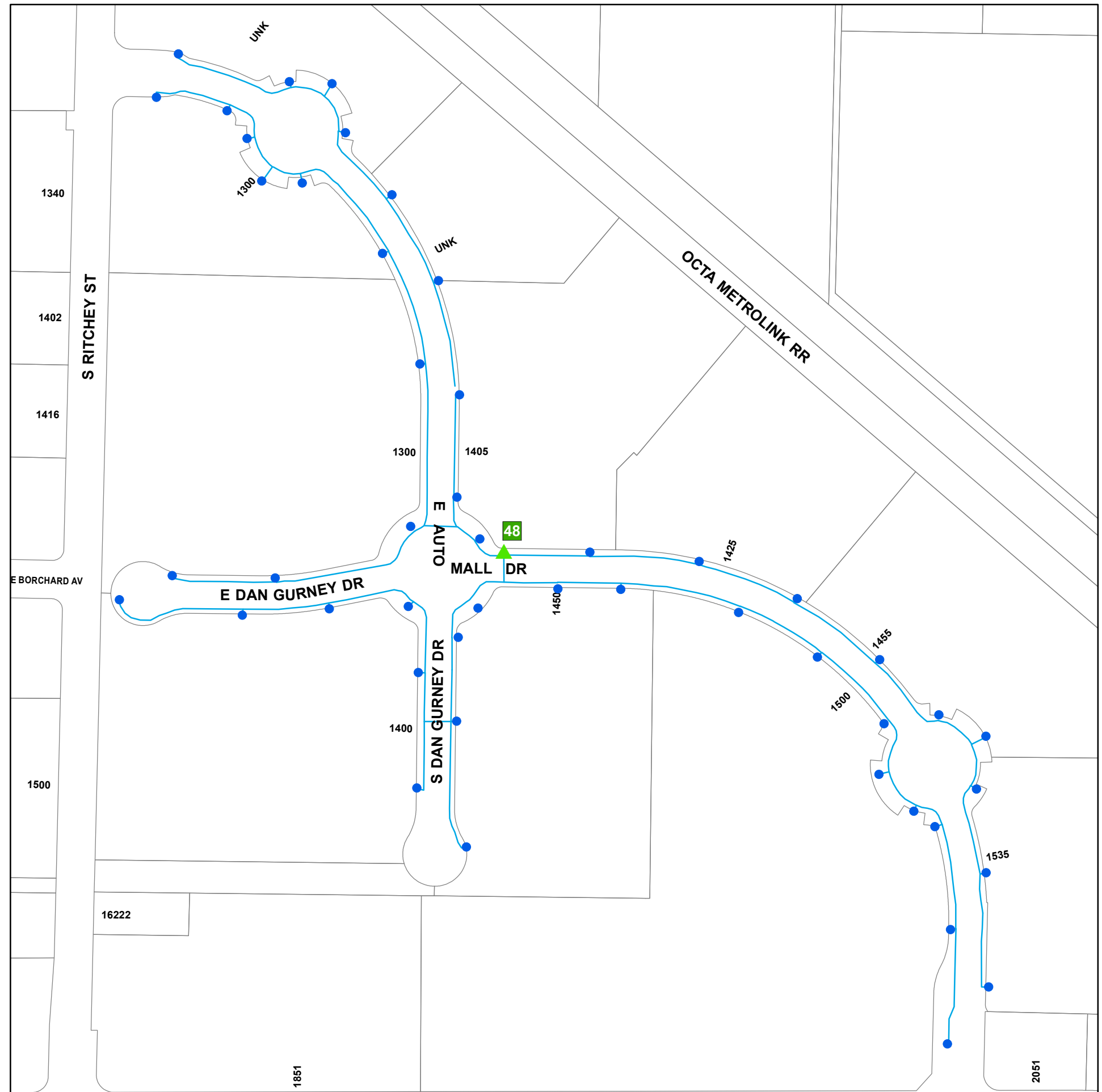
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- Light Fixture
- Service Point
- Light Count per SP





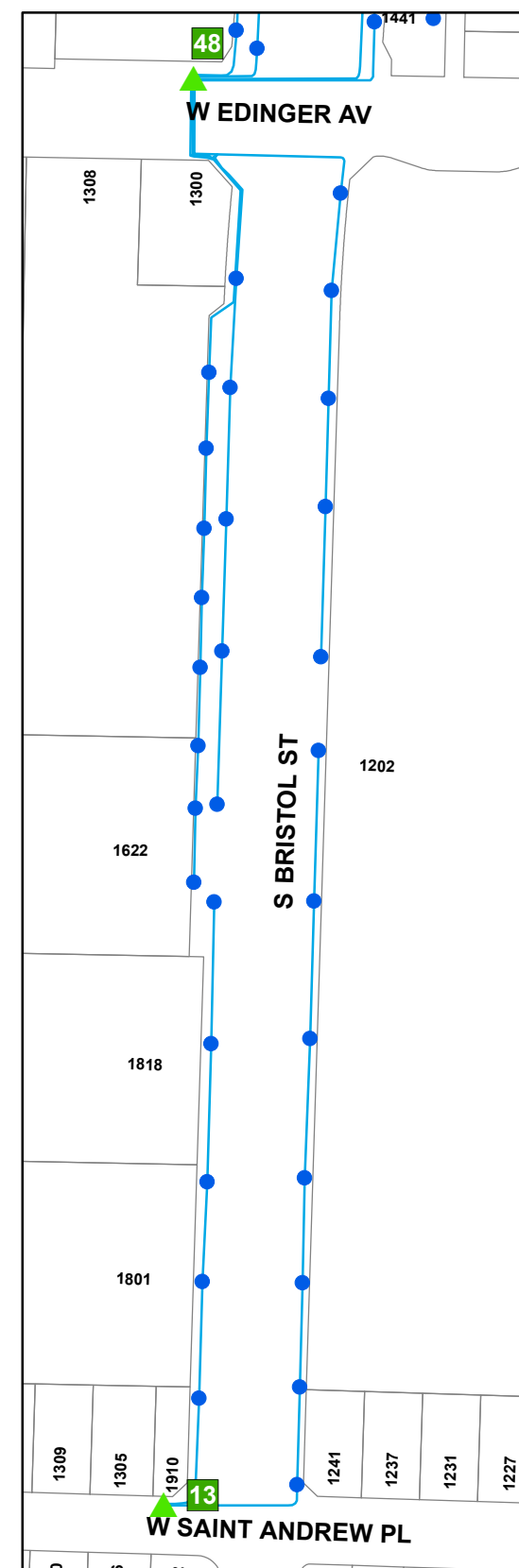
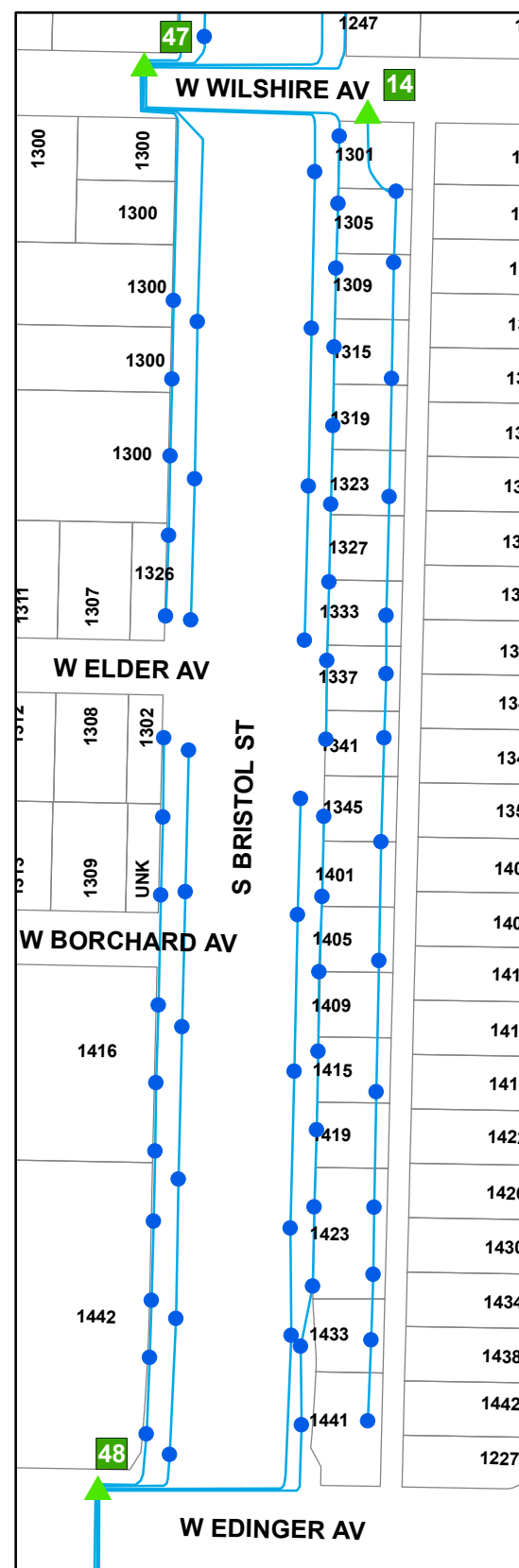
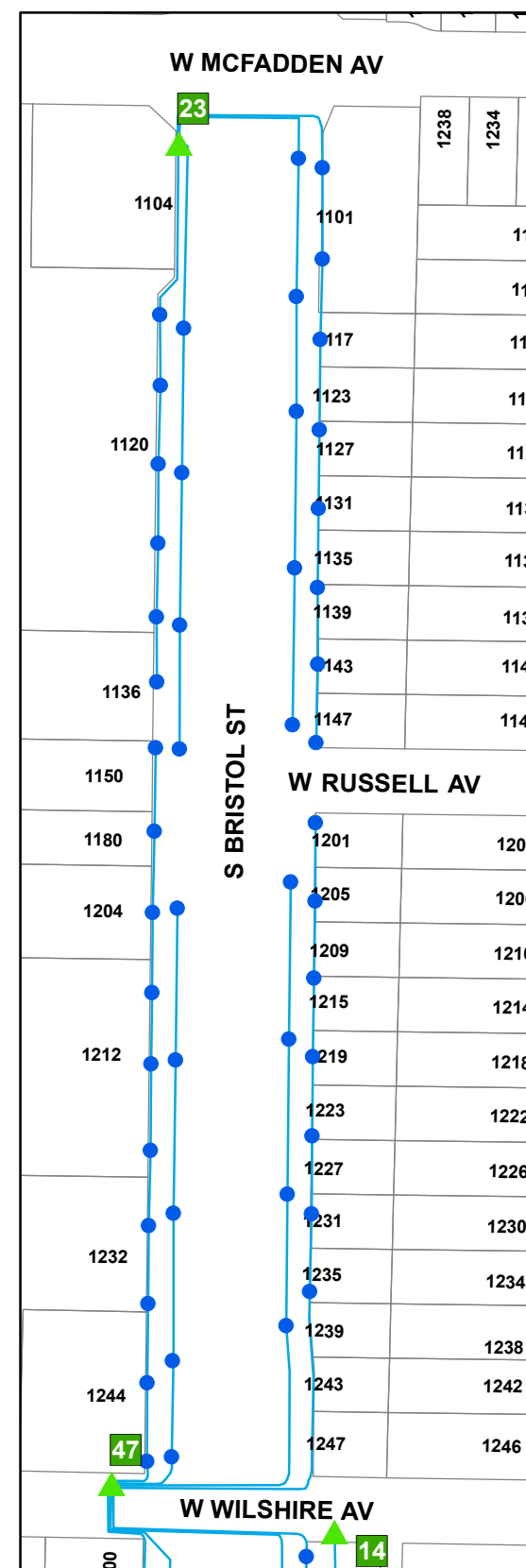
# AUTO MALL







## Legend

- Low Voltage Conduit
- Light Fixture
- Service Point
- Light Count per SP





## Legend

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-  Light Count per SP

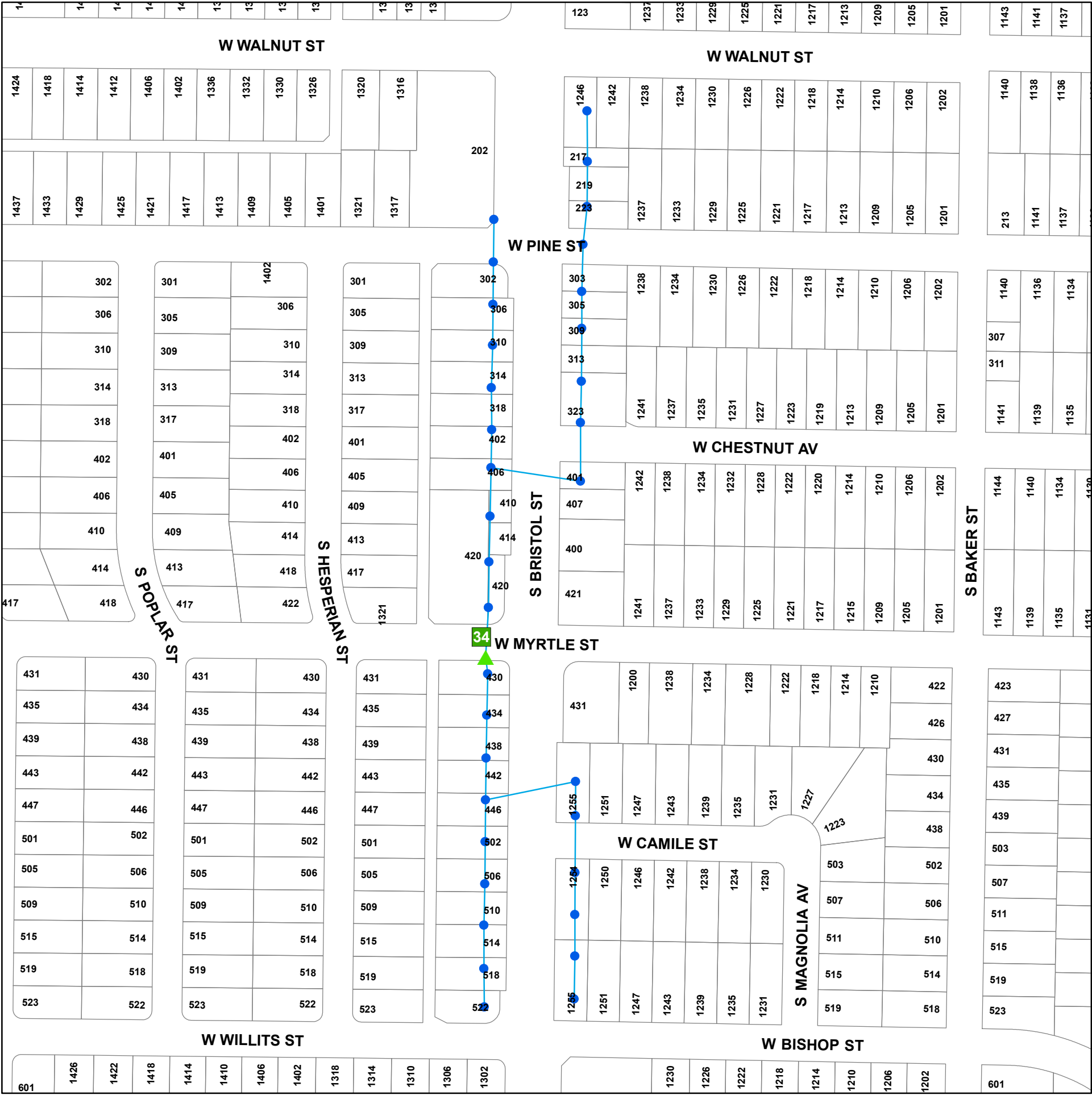




# BRISTOL 2



# BRISTOL 3

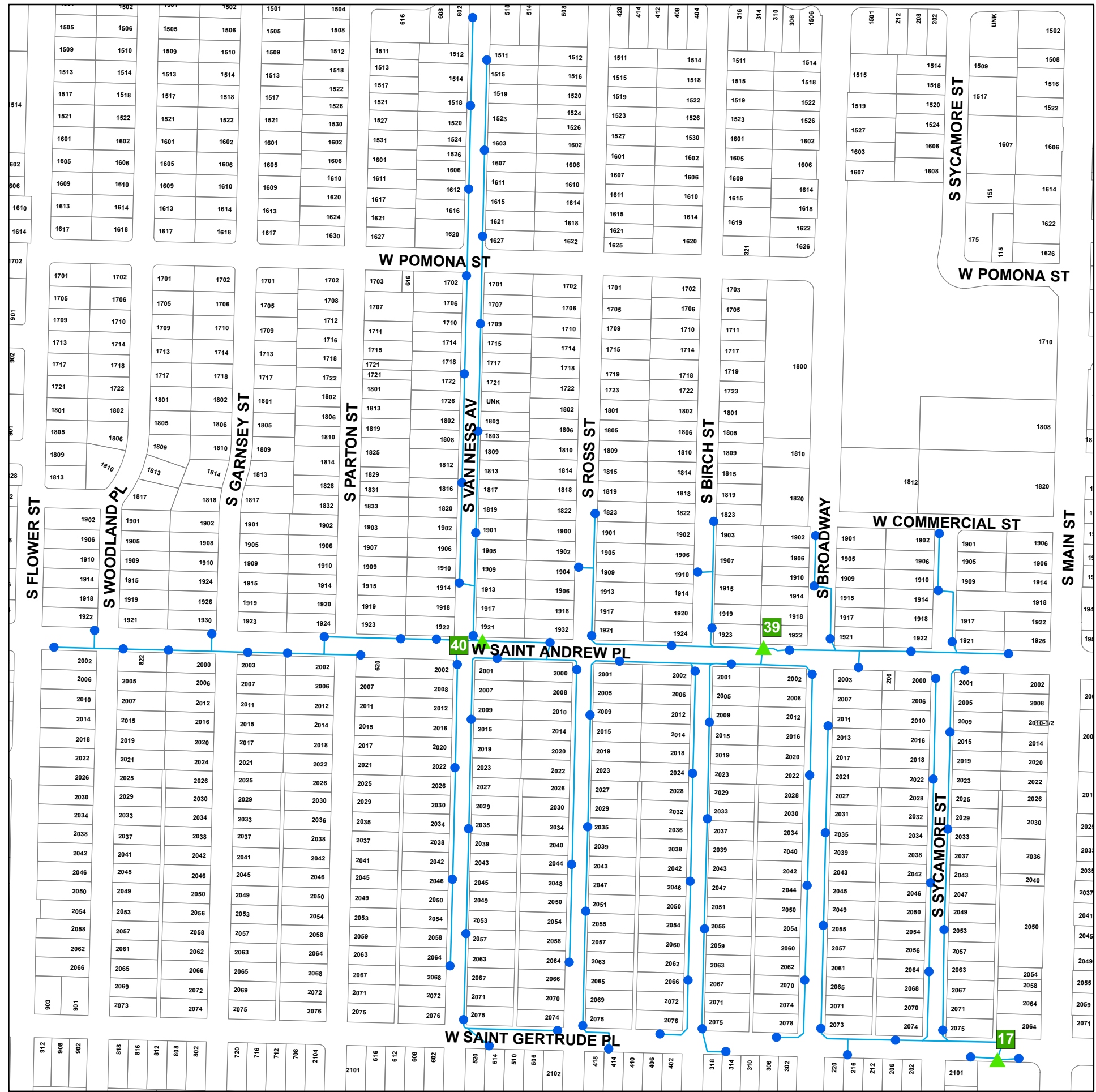


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BRISTOL MANOR

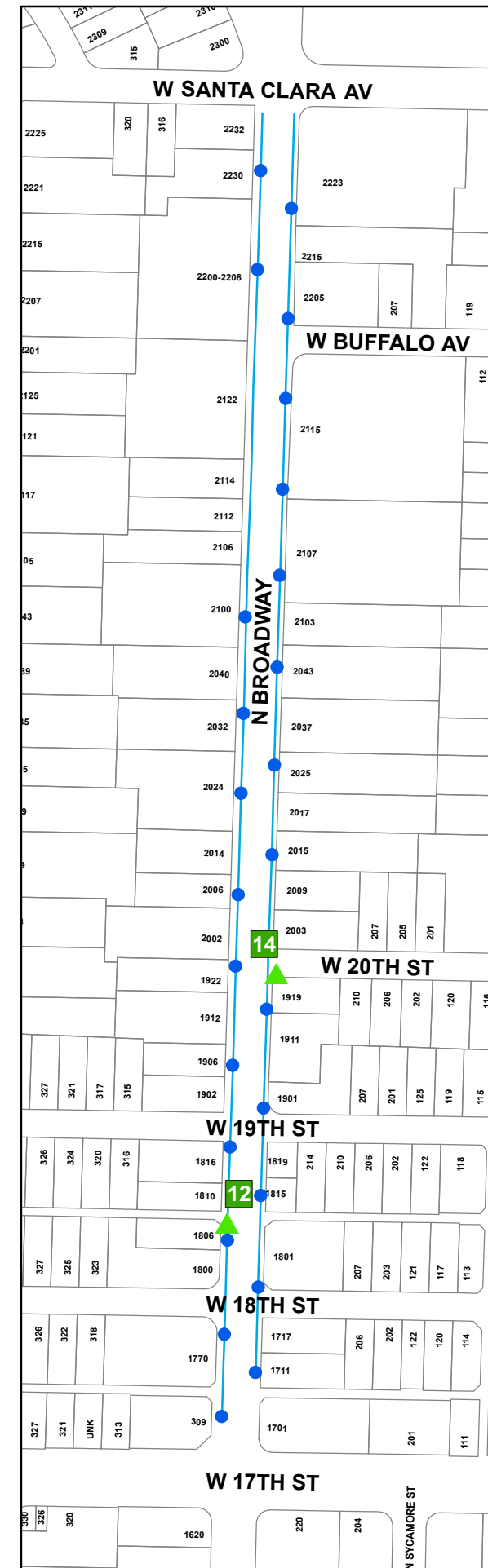
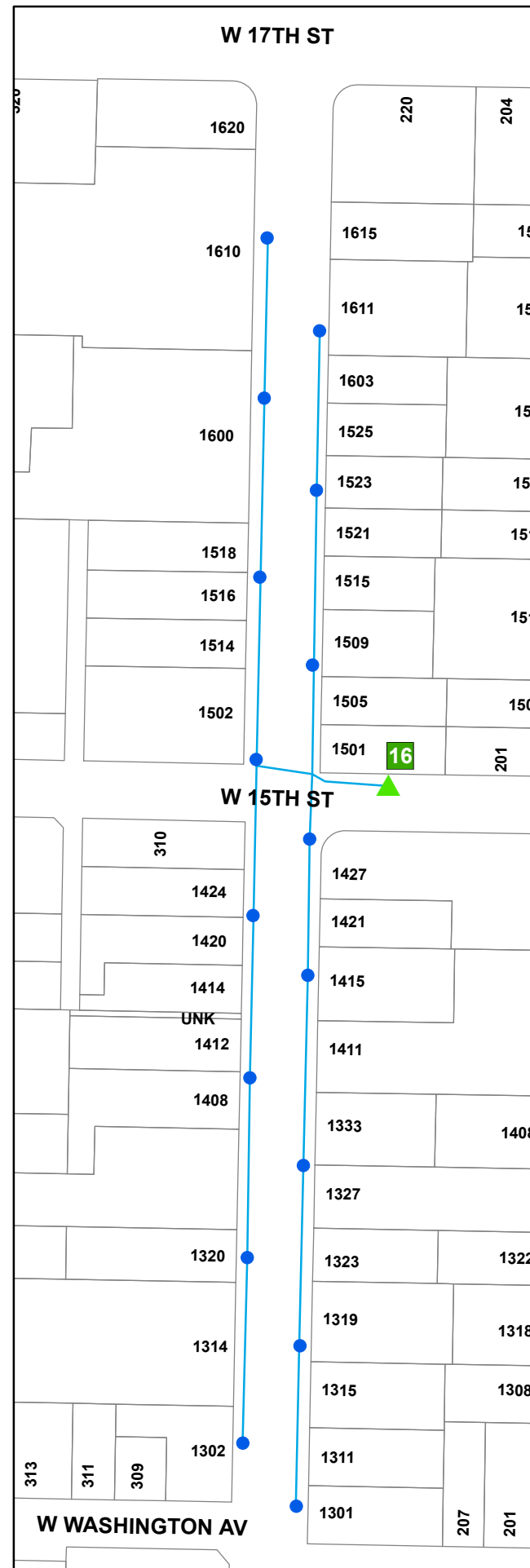
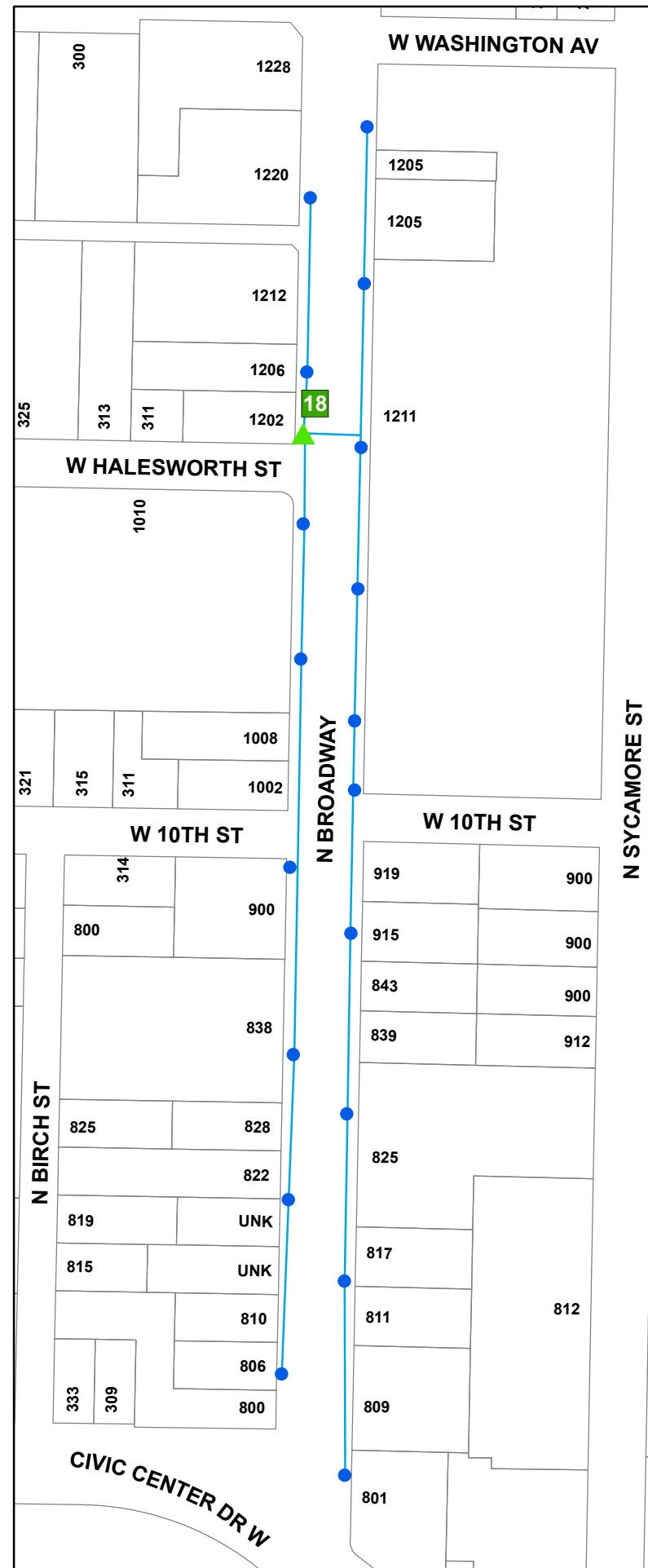


Legend

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- Light Count per SP



# BROADWAY







- Legend**
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  - Light Count per SP



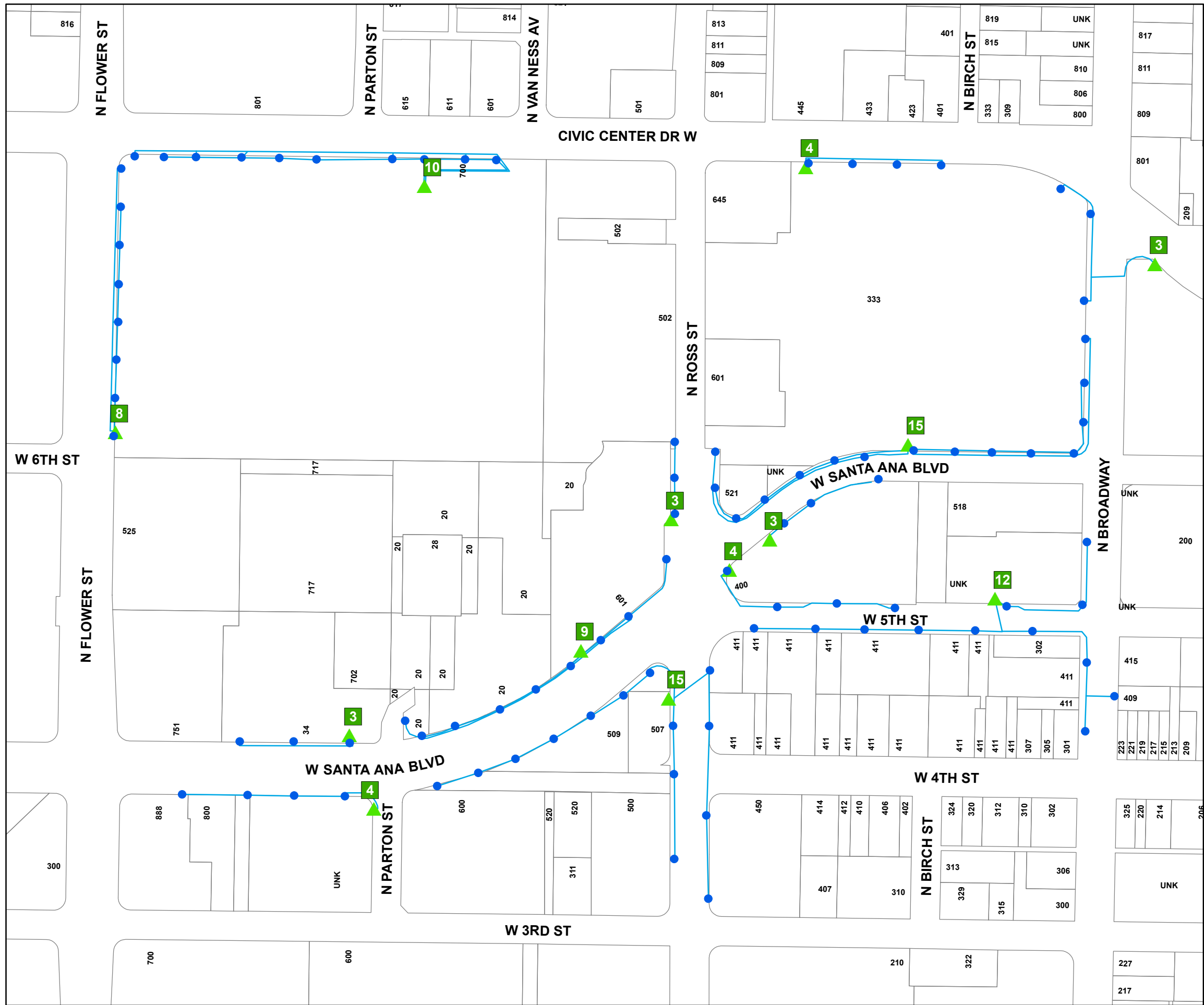


### Legend

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-  Light Fixture
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-  Light Count per SP



# CIVIC CENTER







- Legend**
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  - Light Count per SP



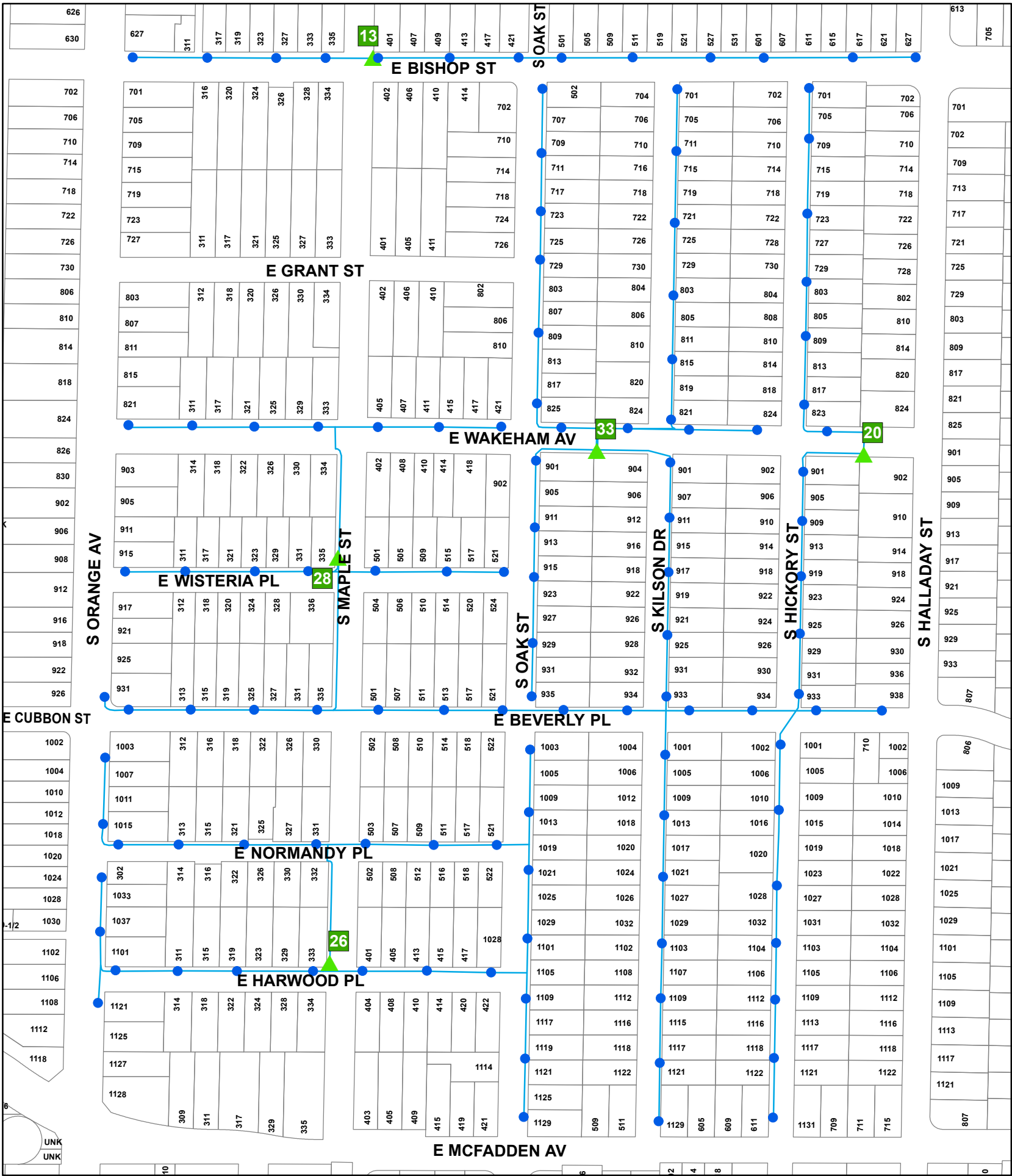
# DOWNTOWN



## Legend

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-  Service Point
-  Light Count per SP





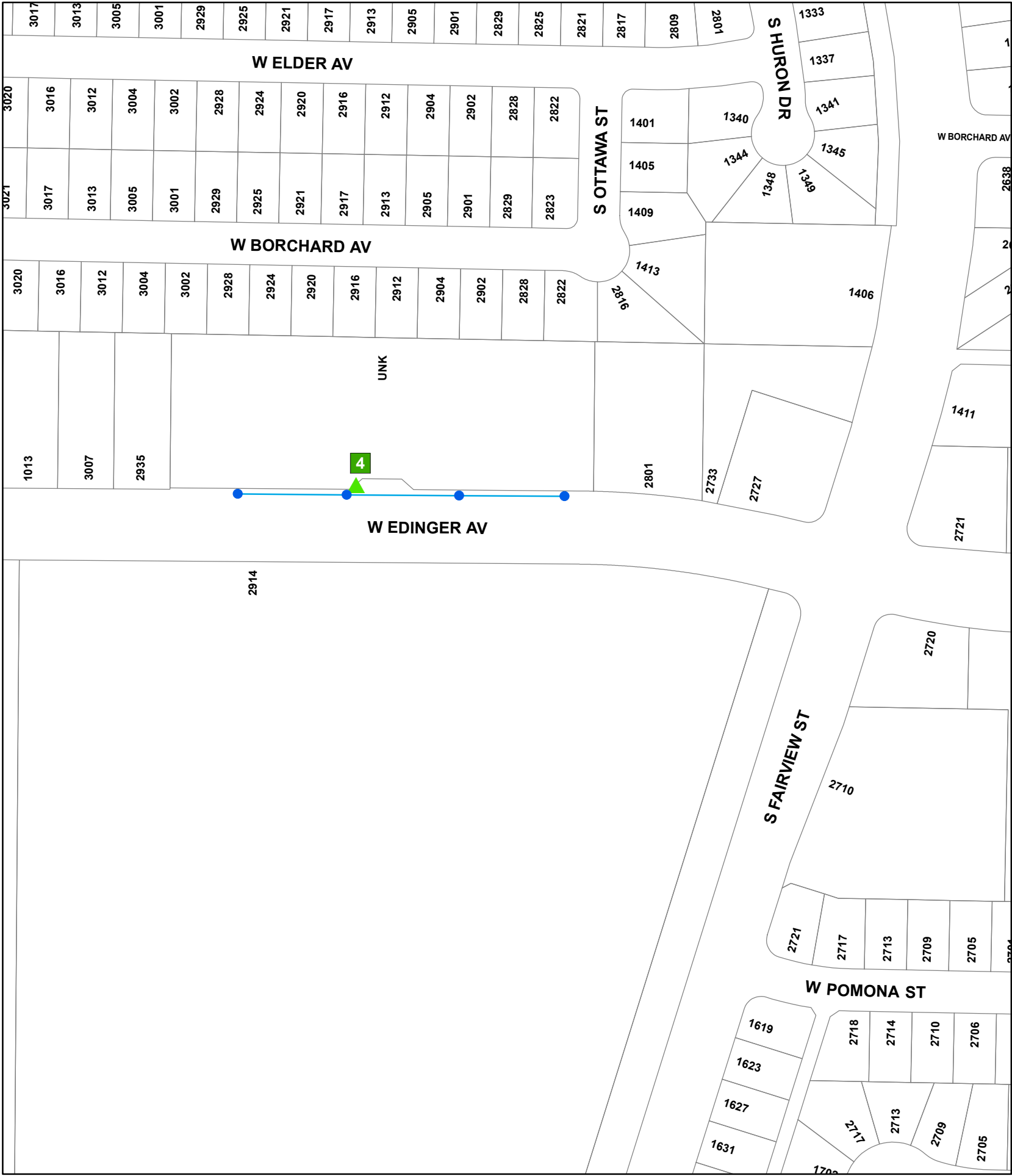
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- Light Count per SP





EDINGER & FAIRVIEW

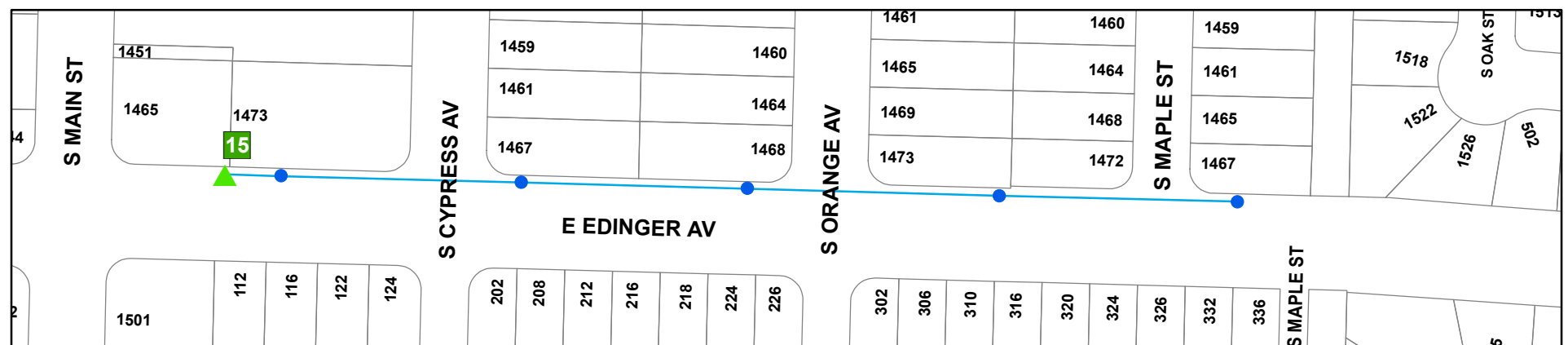
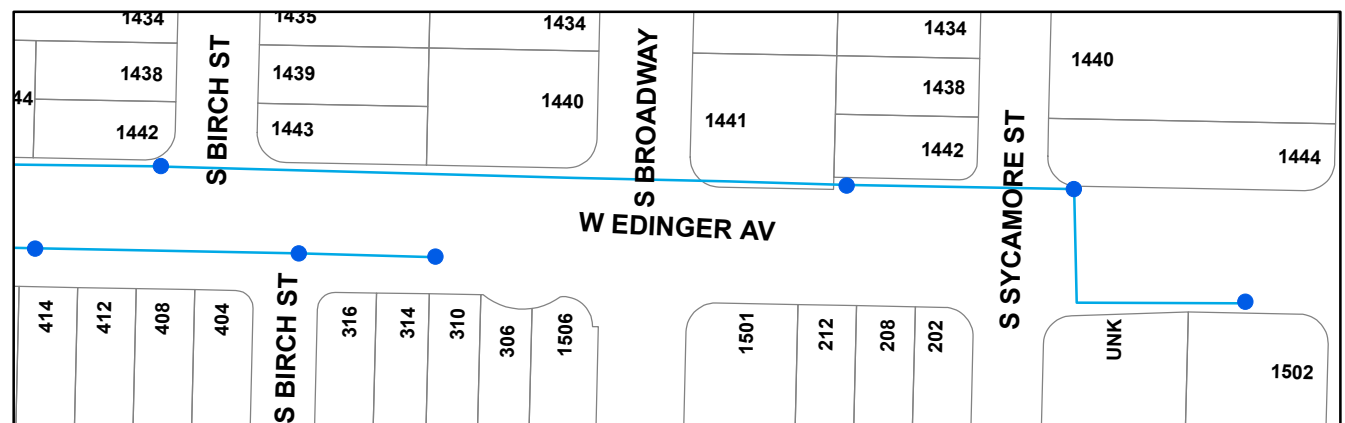
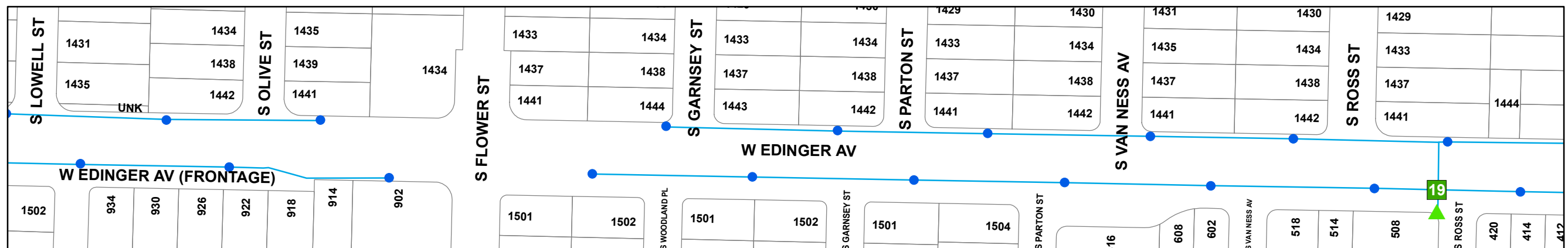
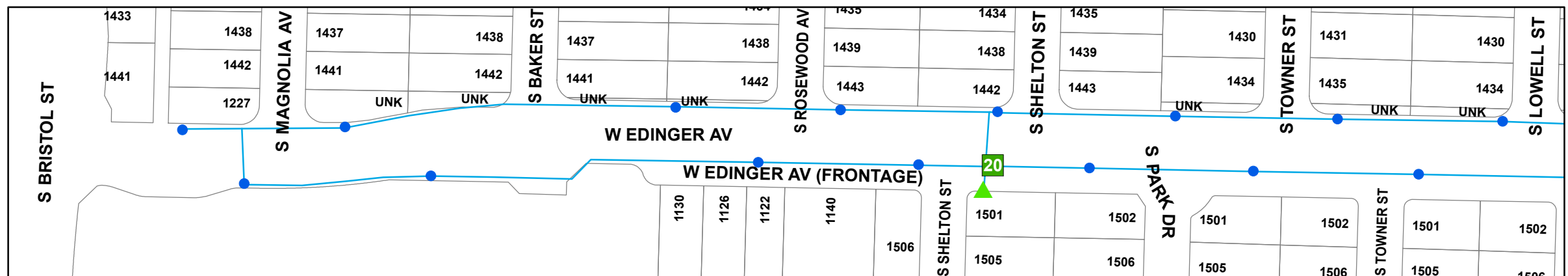


Legend





- Low Voltage Conduit
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- Service Point
- Light Count per SP



# EDINGER

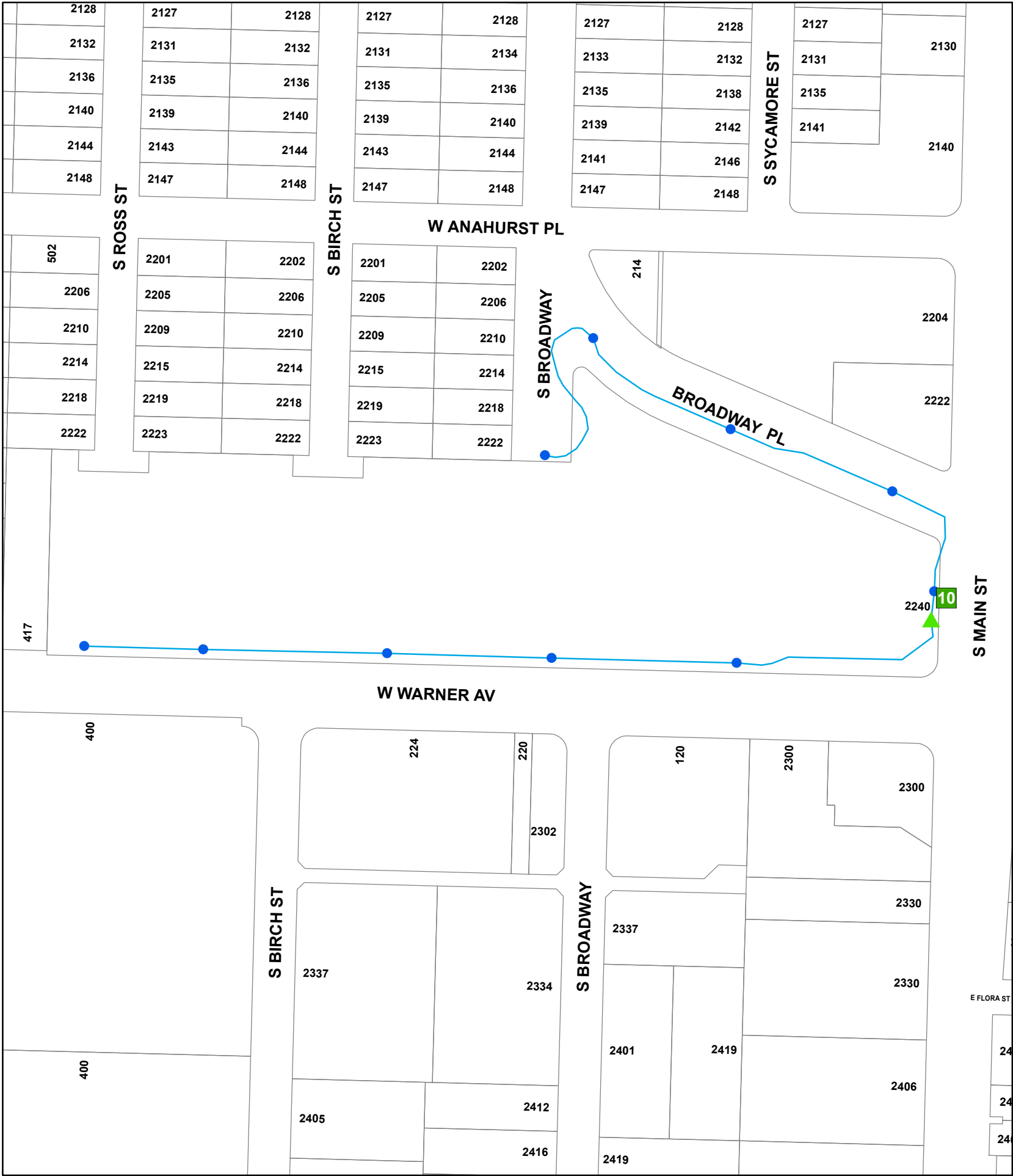


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-  Service Point
-  Light Count per SP



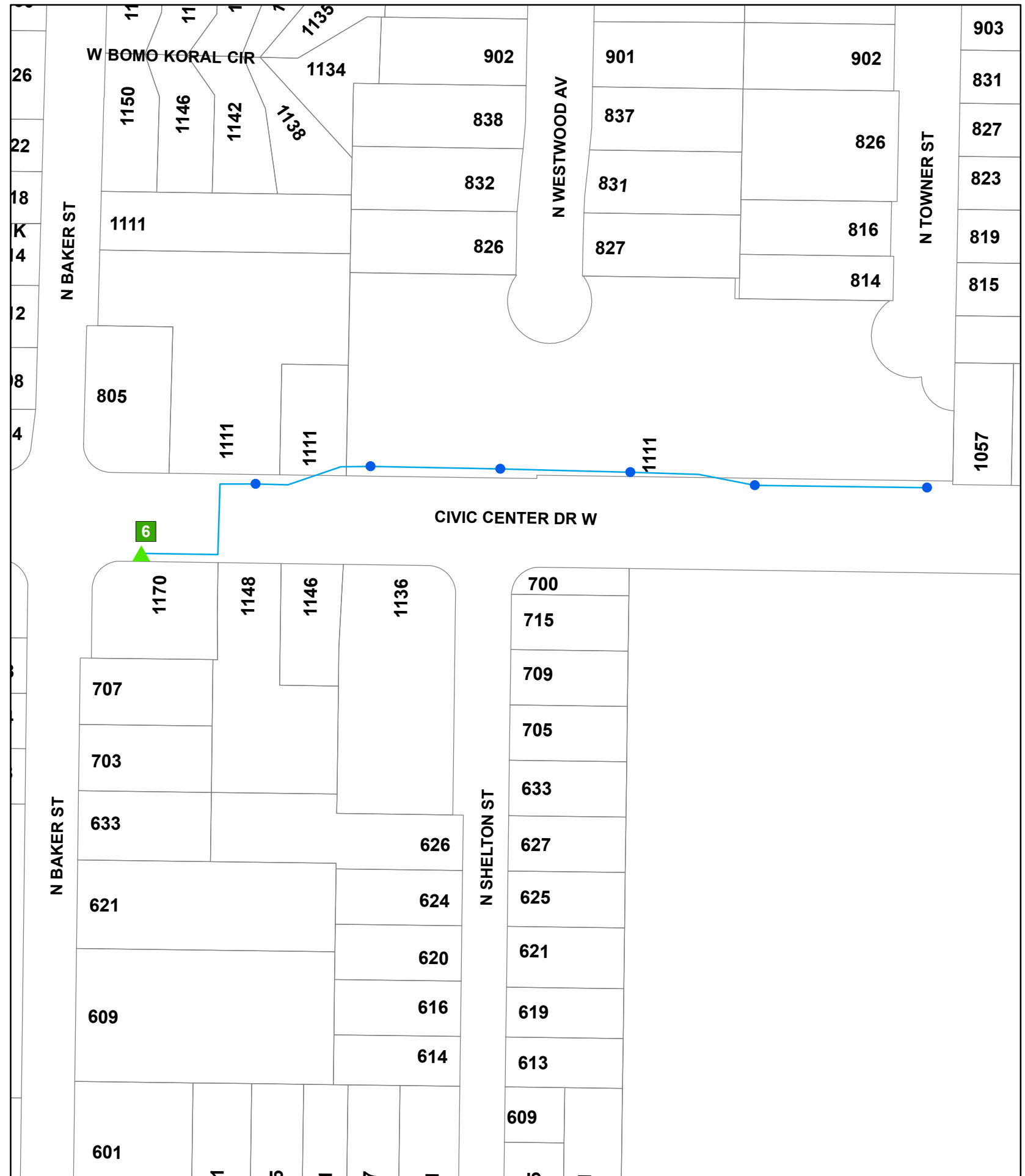
ESQUEDA  
ELEM



Legend

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- Light Fixture
- Service Point
- Light Count per SP



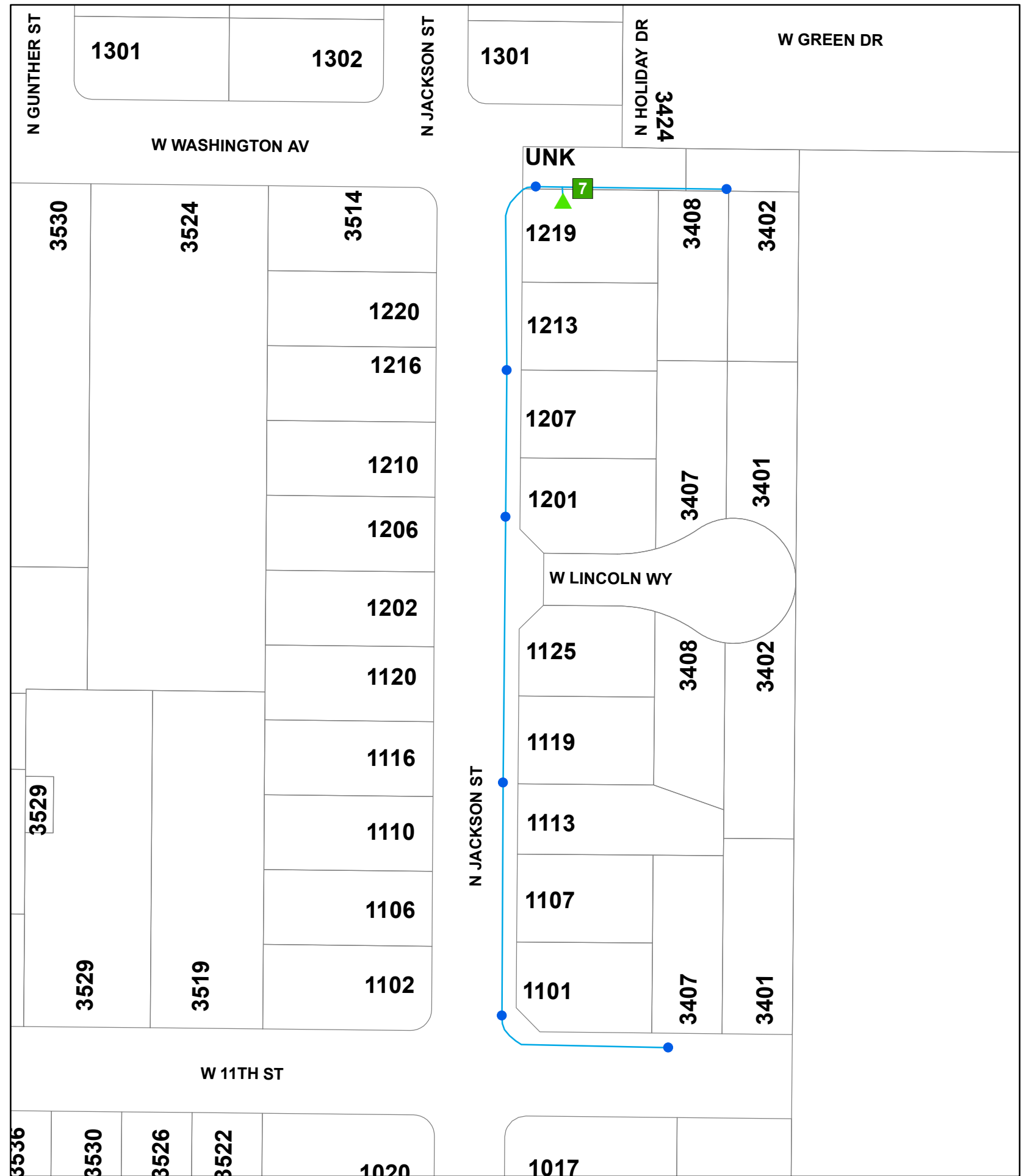


Legend

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- Light Fixture
- Service Point
- Light Count per SP



JACKSON ST

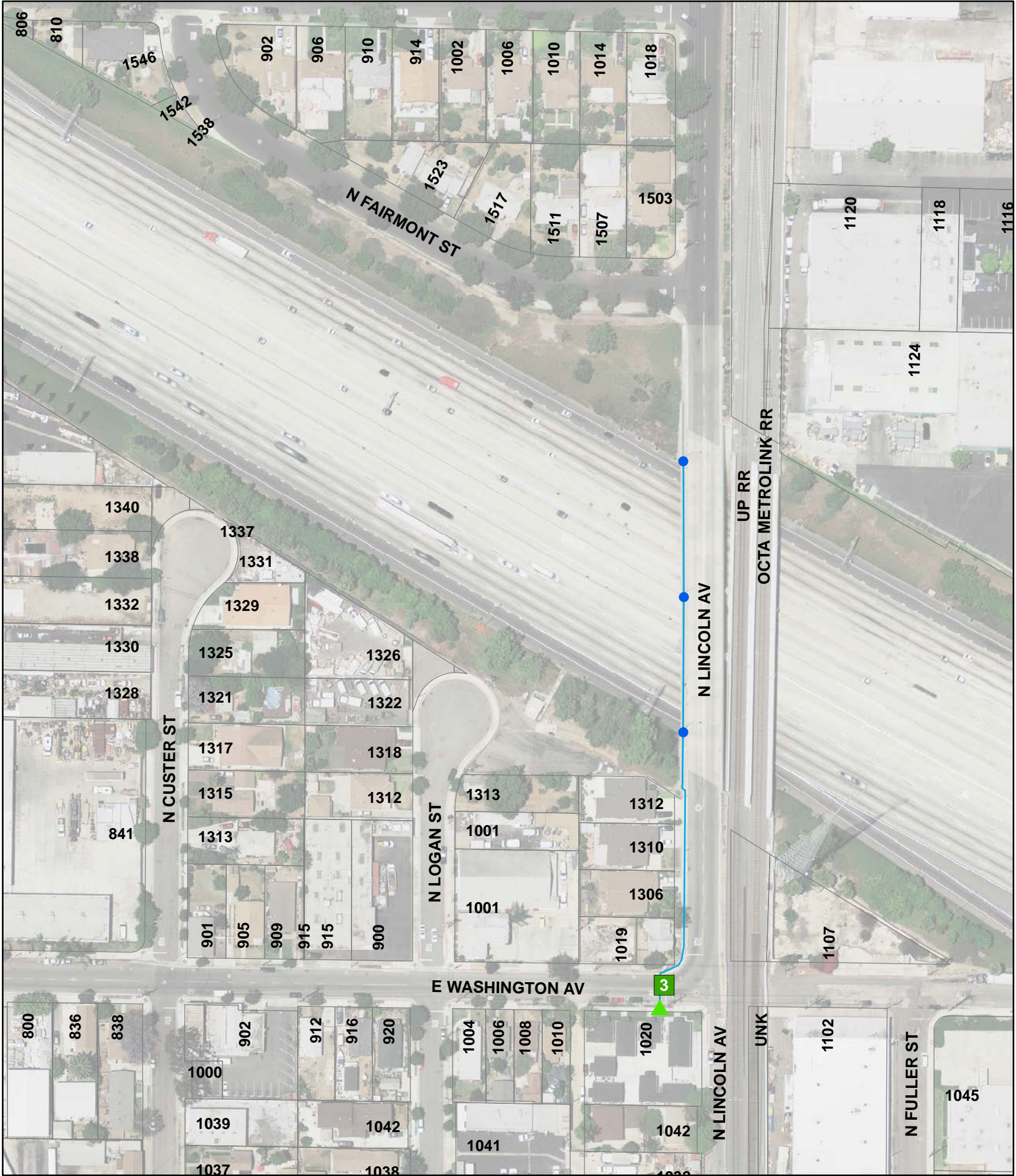


Legend





- Low Voltage Conduit
- Light Fixture
- Service Point
- Light Count per SP



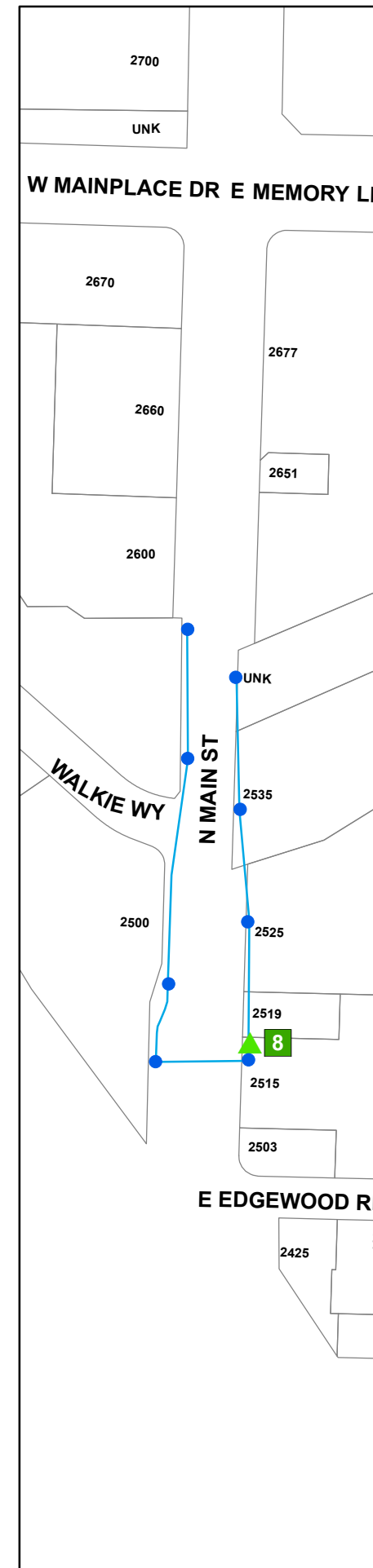
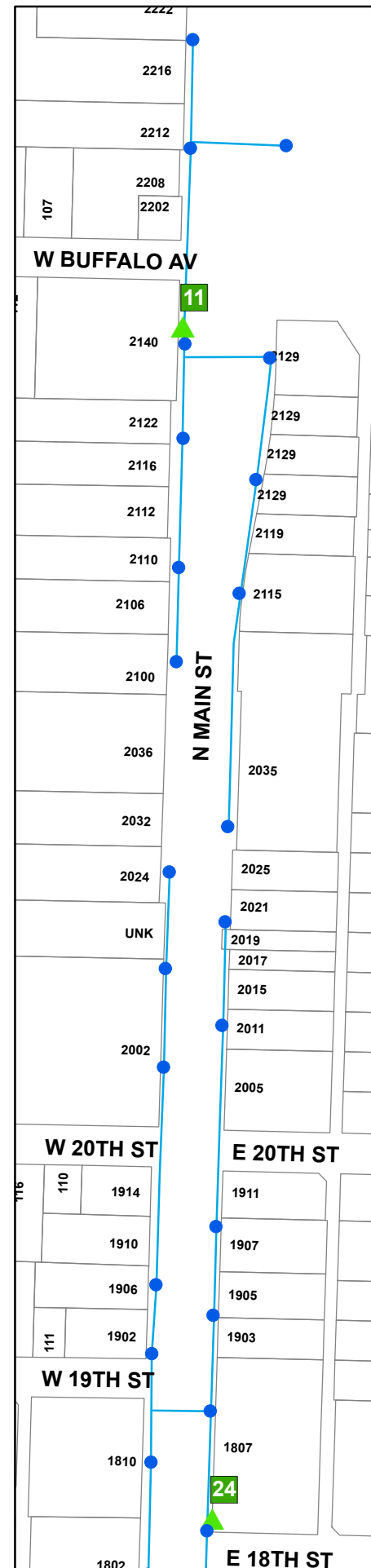
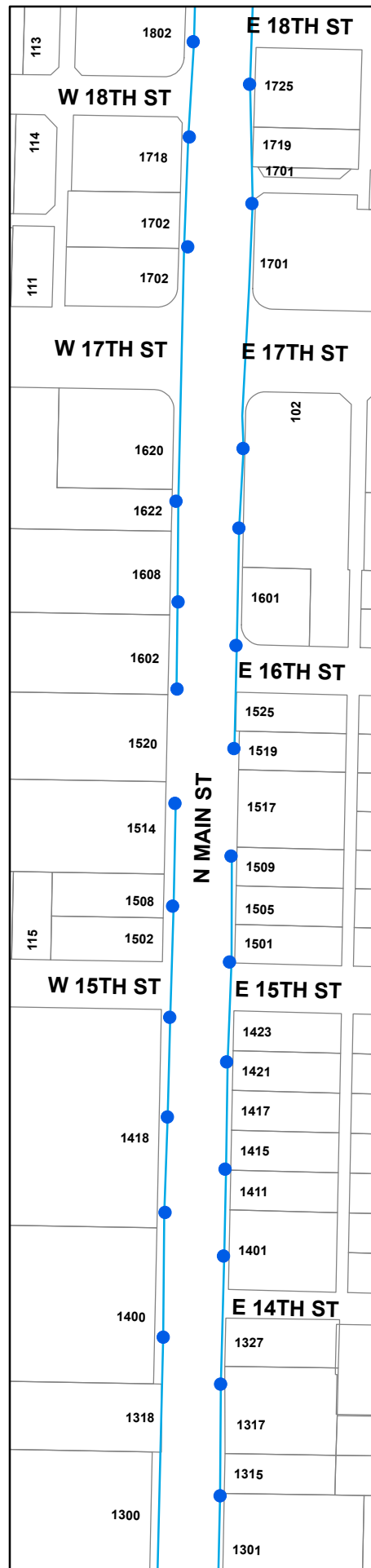
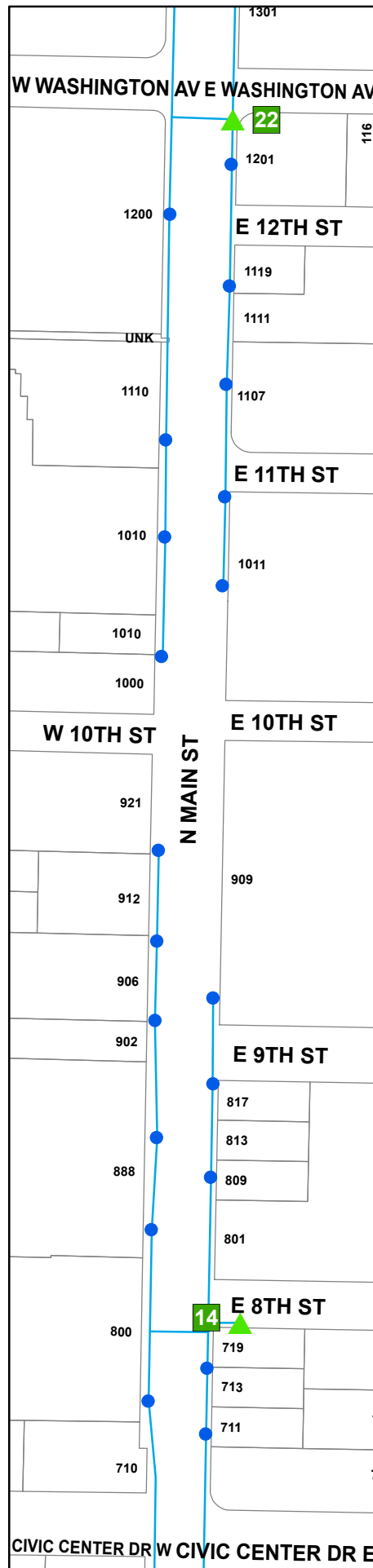
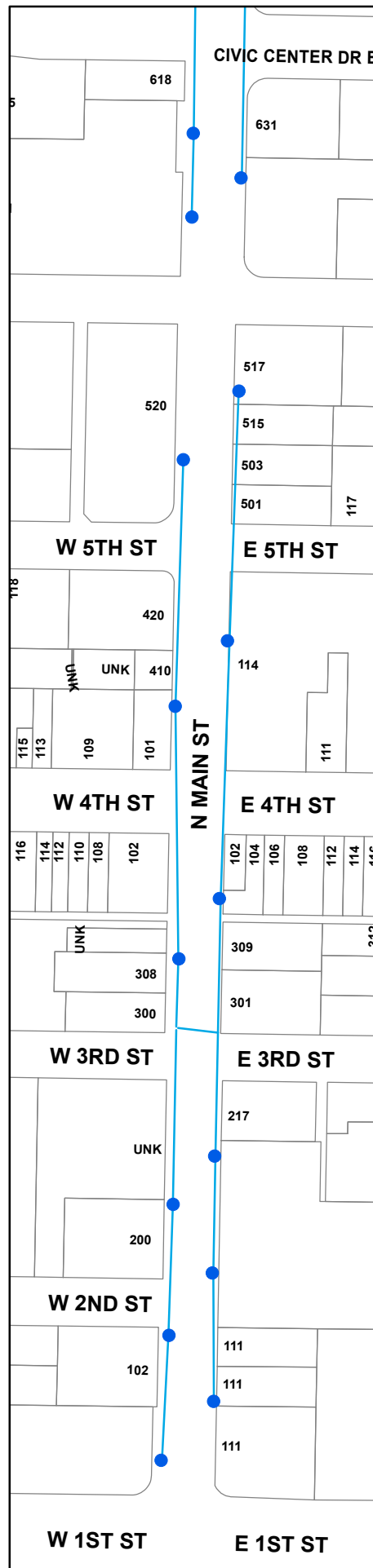




**Legend**

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-  Light Fixture
-  Service Point
-  Light Count per SP





# MAIN NORTH

### Legend

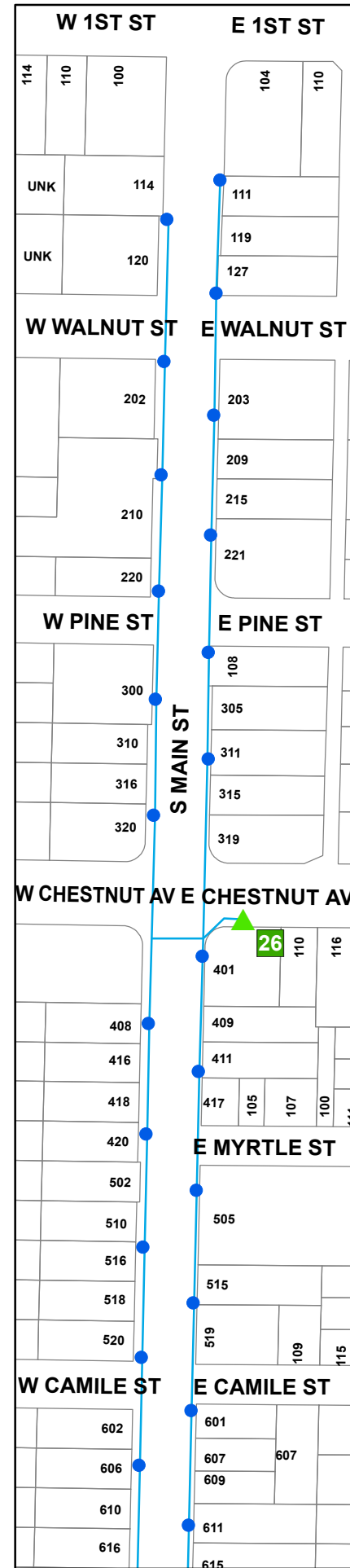
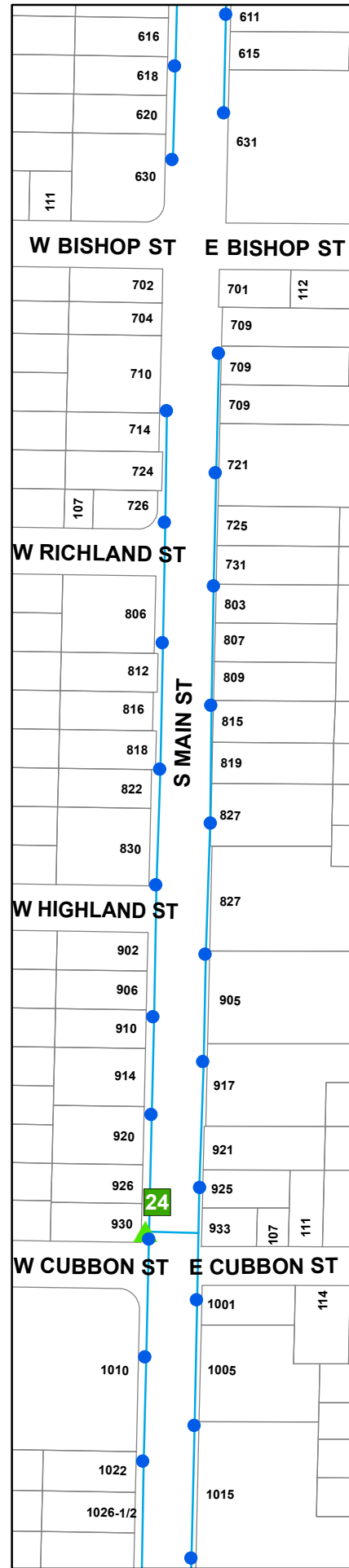
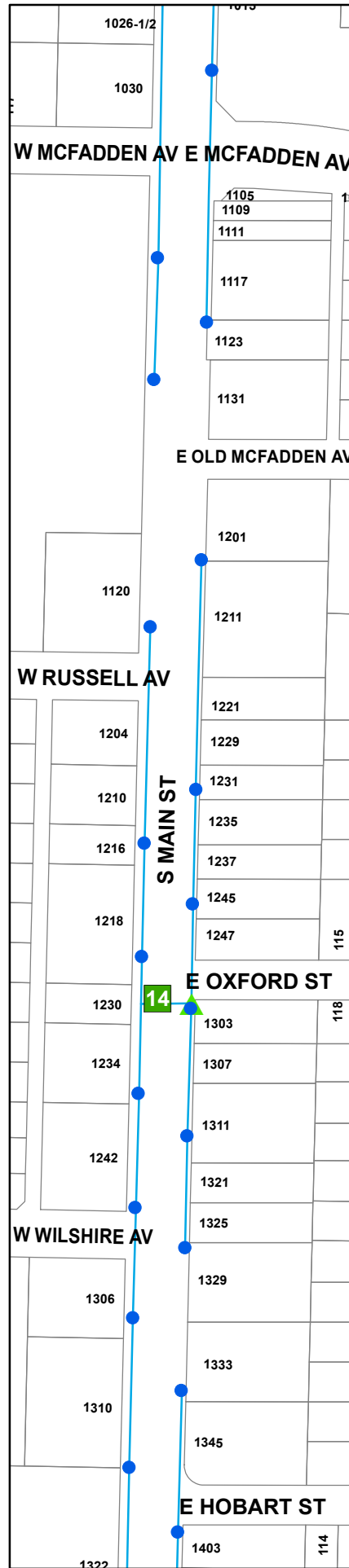
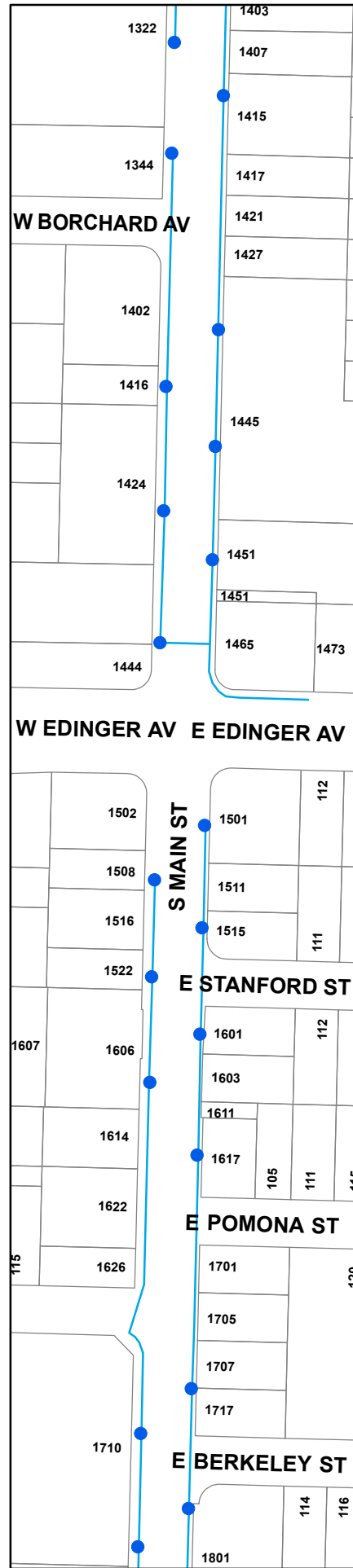
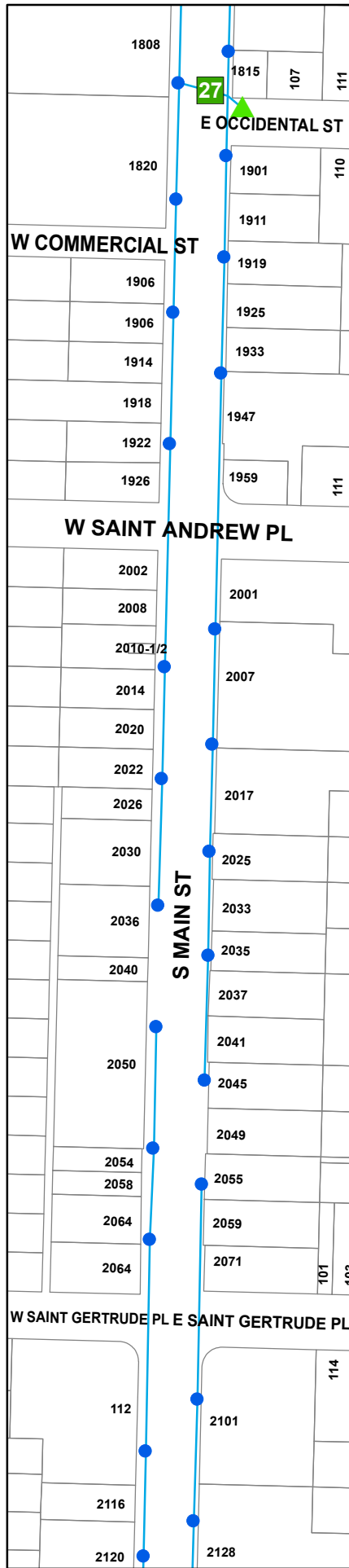
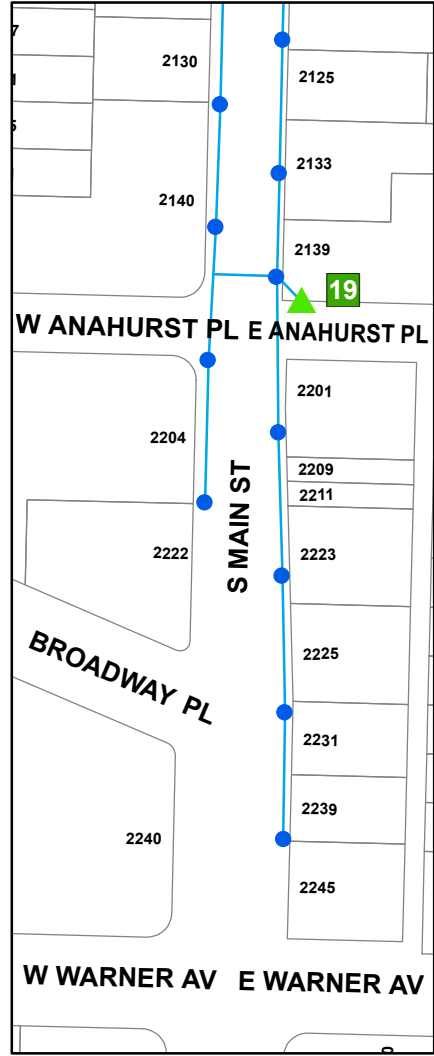
- Low Voltage Conduit
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- Light Count per SP



Map Data June 2014 - PWA - GIS



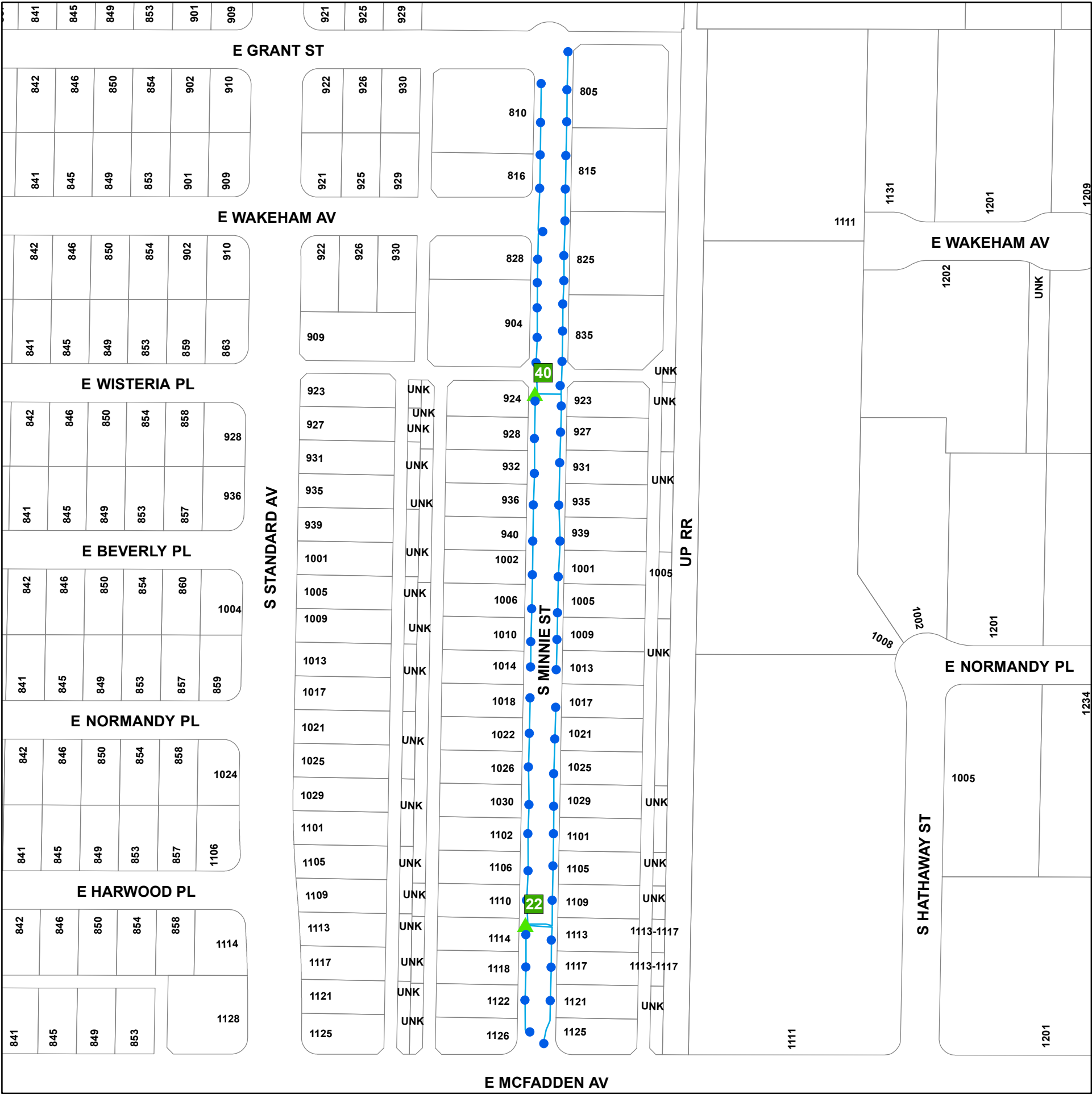
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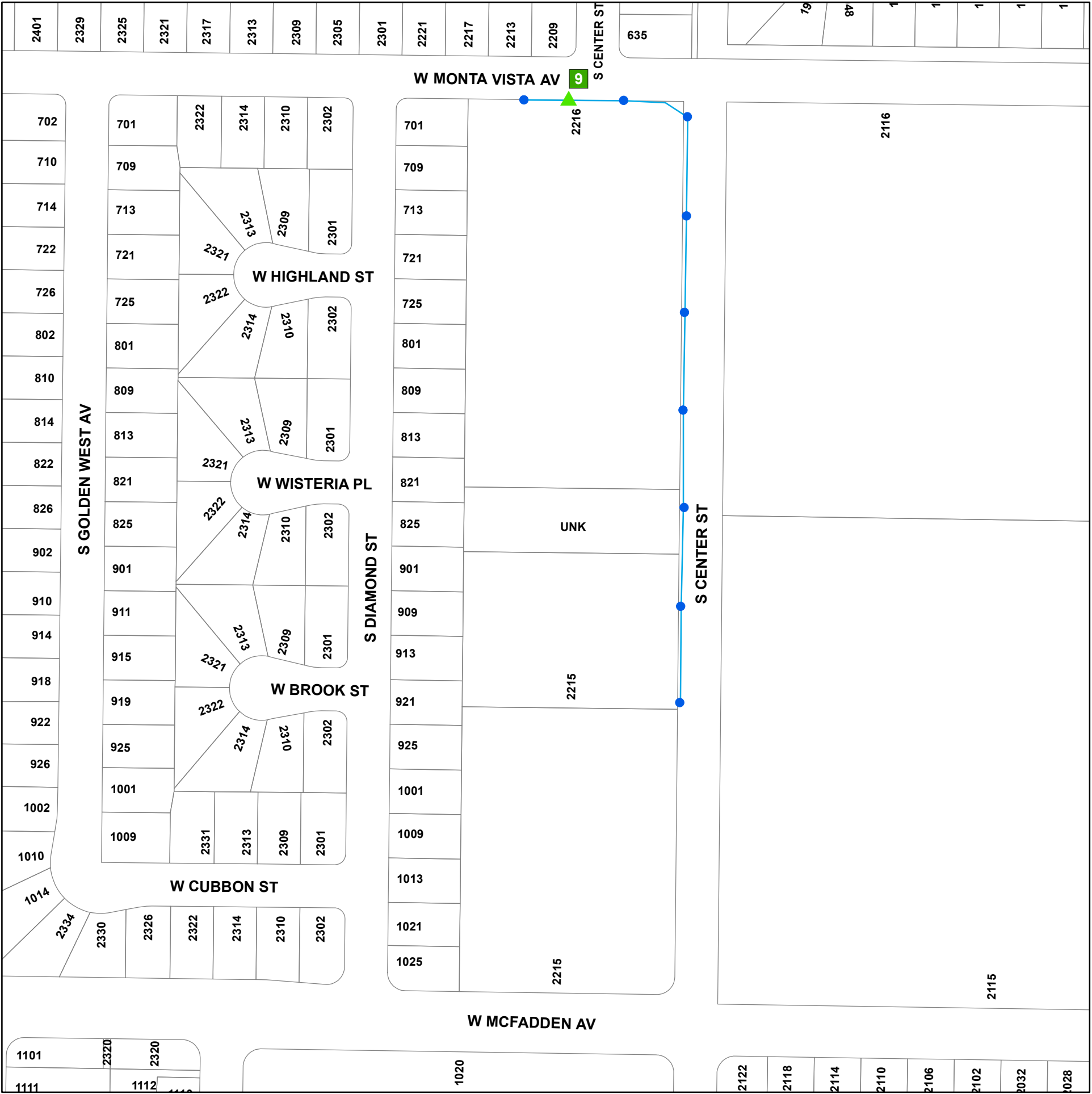


- Legend**
- Low Voltage Conduit
  - Light Fixture
  - Service Point
  - Light Count per SP





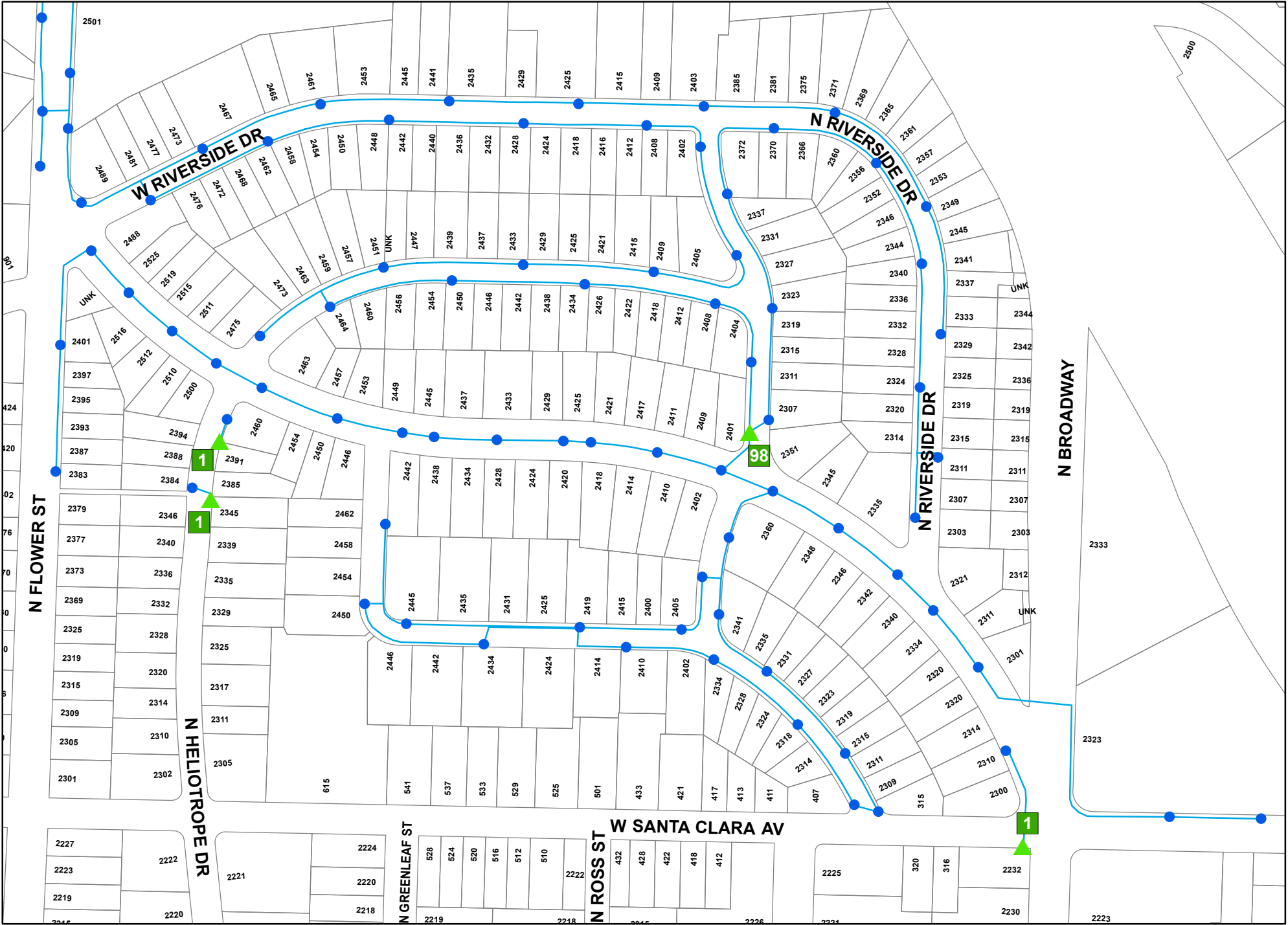
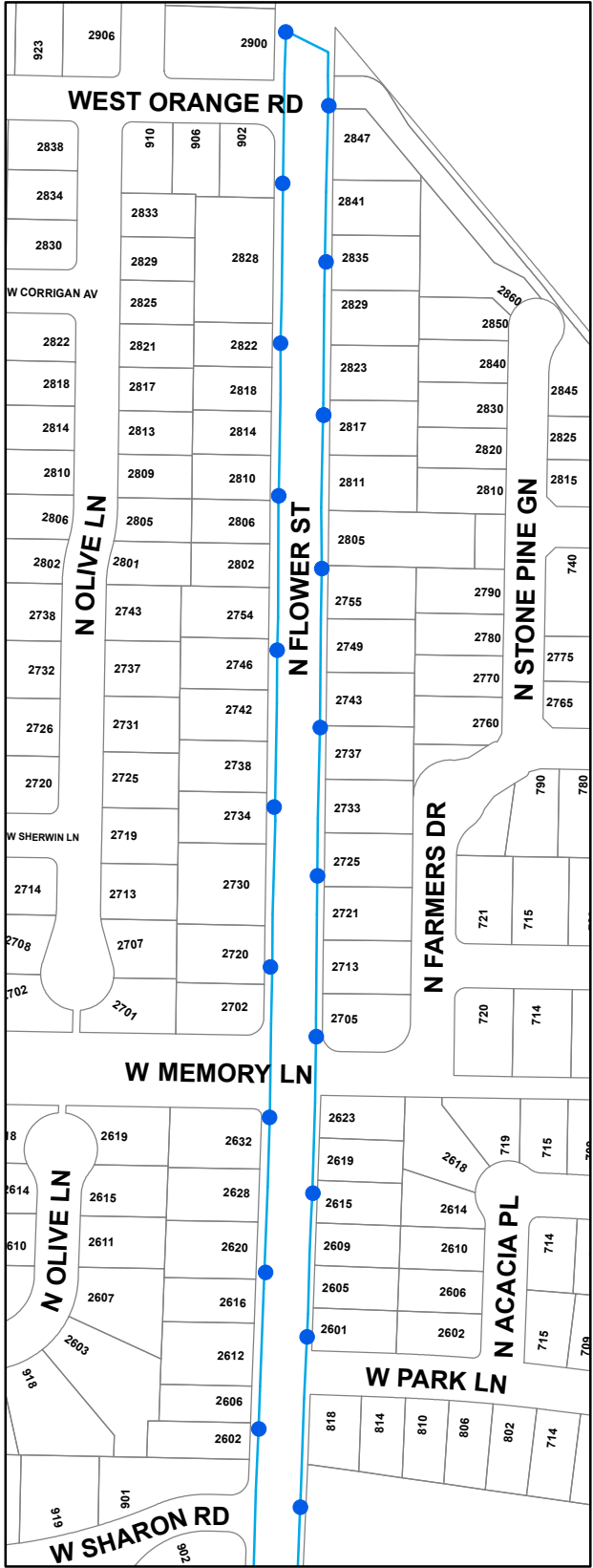




Legend

- Low Voltage Conduit
- Light Fixture
- Service Point
- Light Count per SP

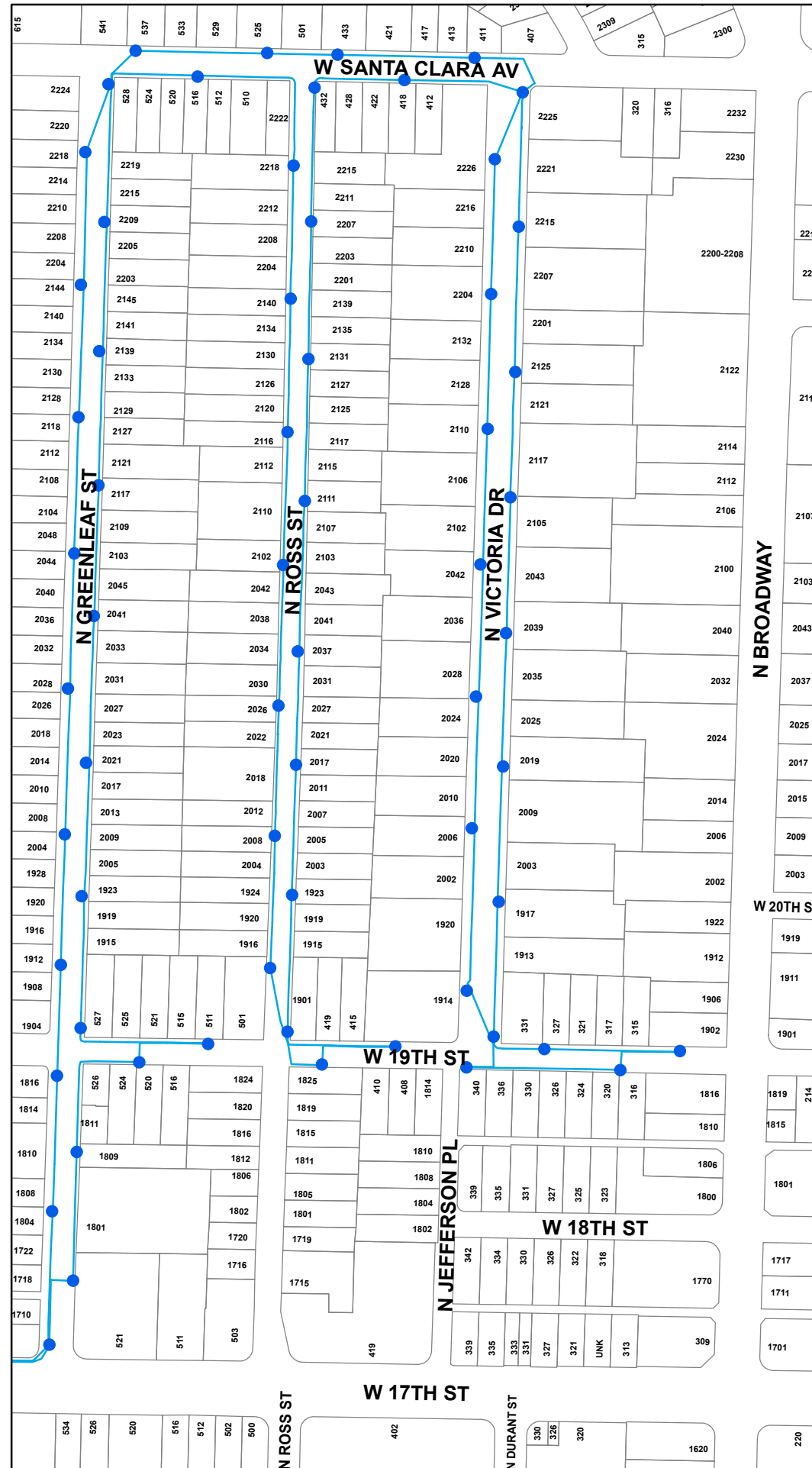
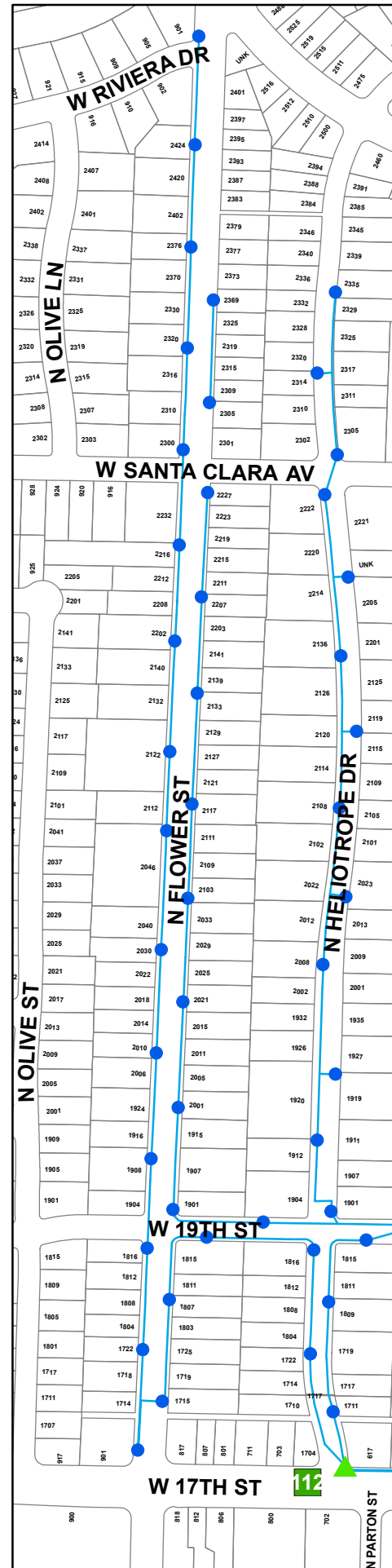




**Legend**

- Low Voltage Conduit
- Light Fixture
- Service Point
- Light Count per SP



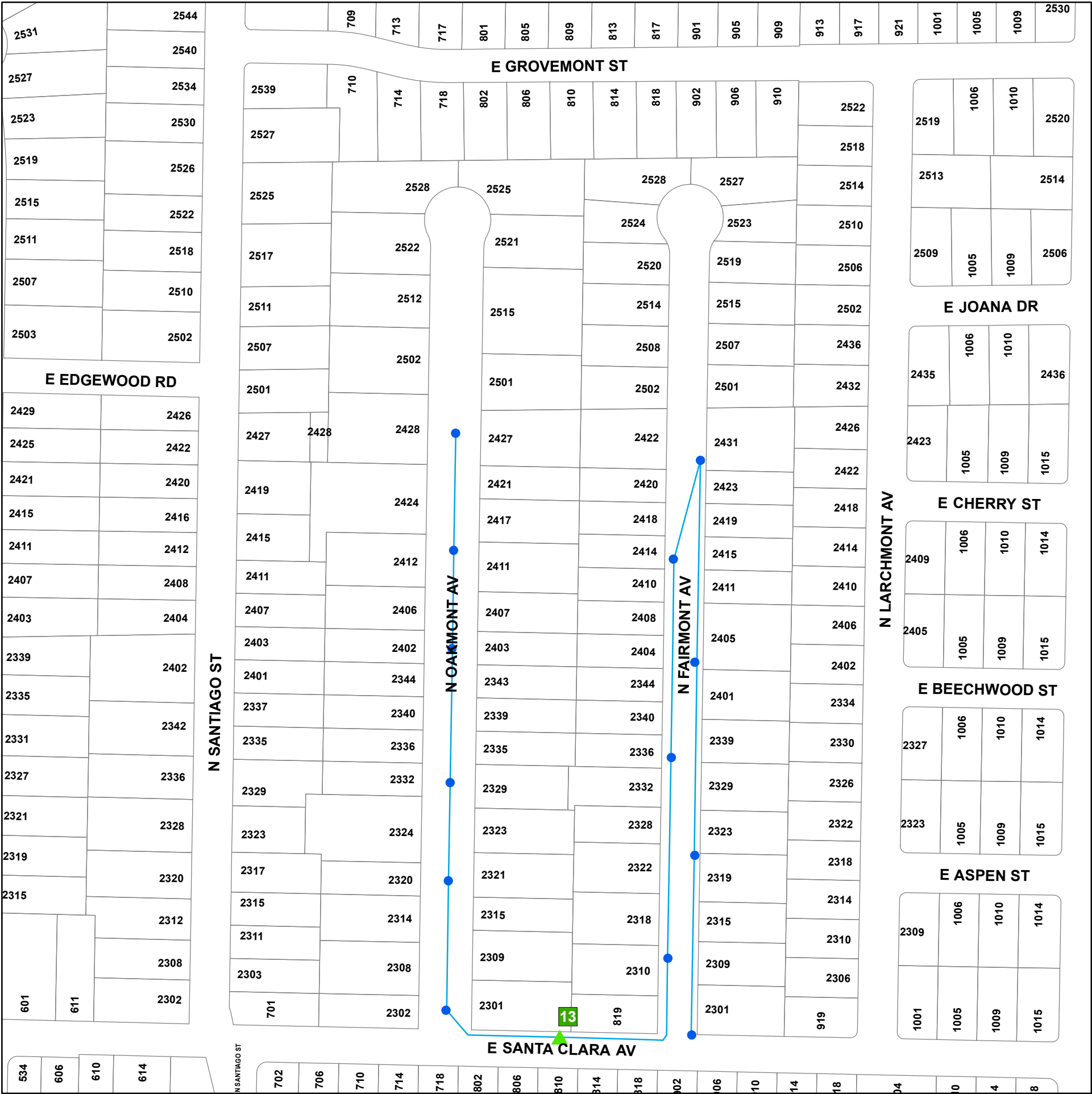


Legend

- Low Voltage Conduit
- Light Fixture
- Service Point
- Light Count per SP



OAKMONT & FAIRMONT

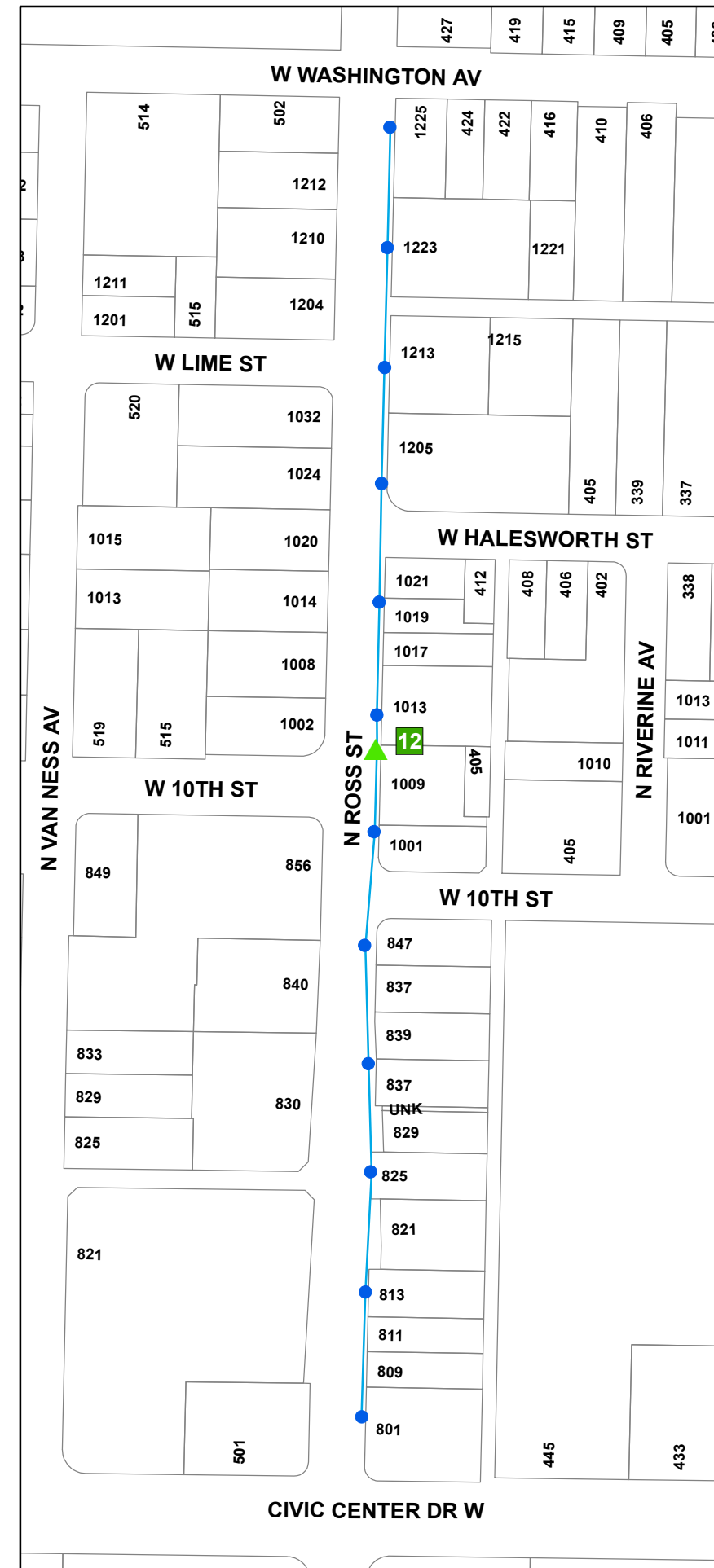
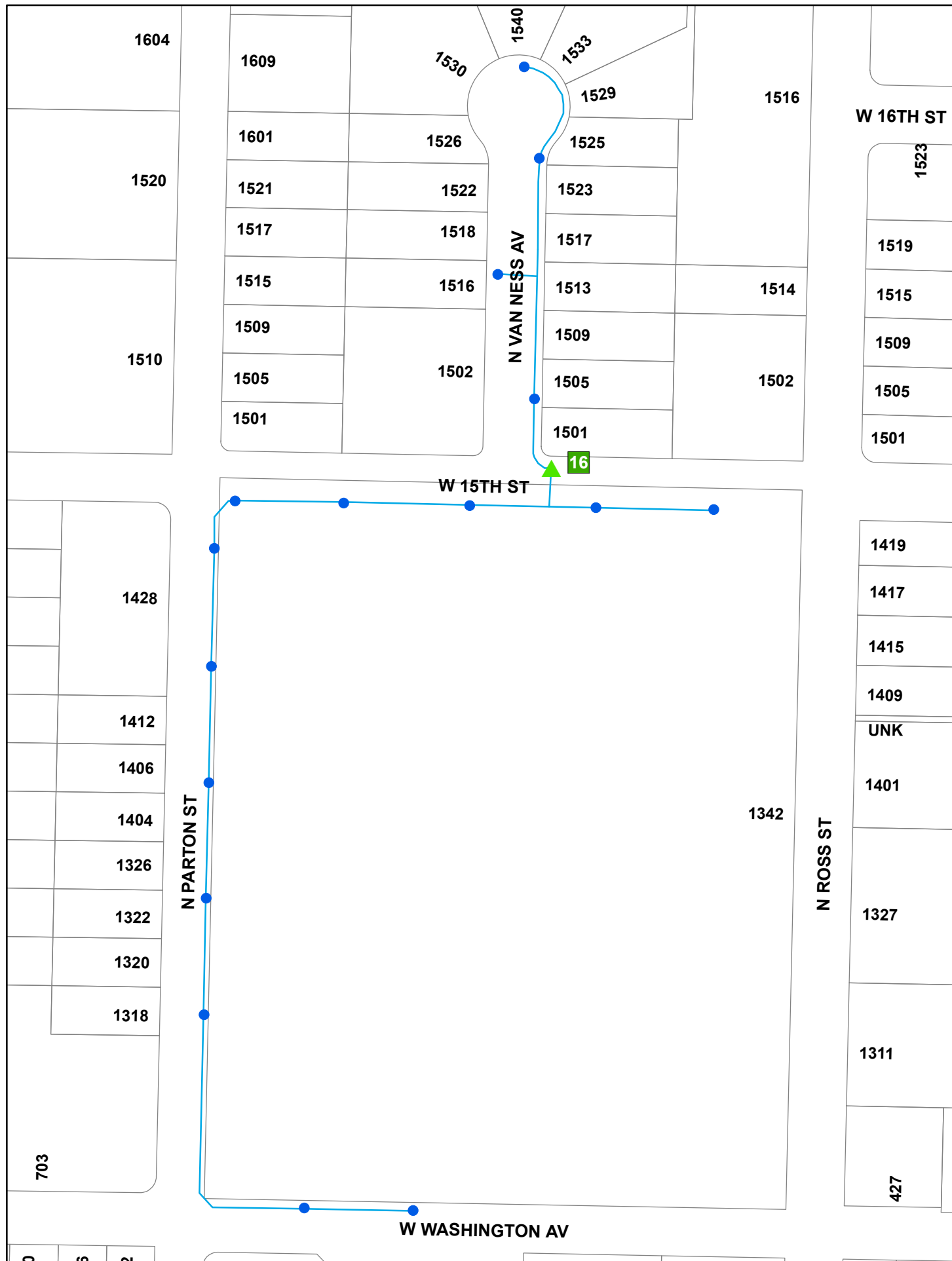


**Legend**

- Low Voltage Conduit
- Light Fixture
- Service Point
- Light Count per SP



# ROSS & 15TH



## Legend





- Low Voltage Conduit
- Light Fixture
- Service Point
- Light Count per SP



# SANTIAGO LOFTS



## Legend

-  Low Voltage Conduit
-  Light Fixture
-  Service Point
-  Light Count per SP



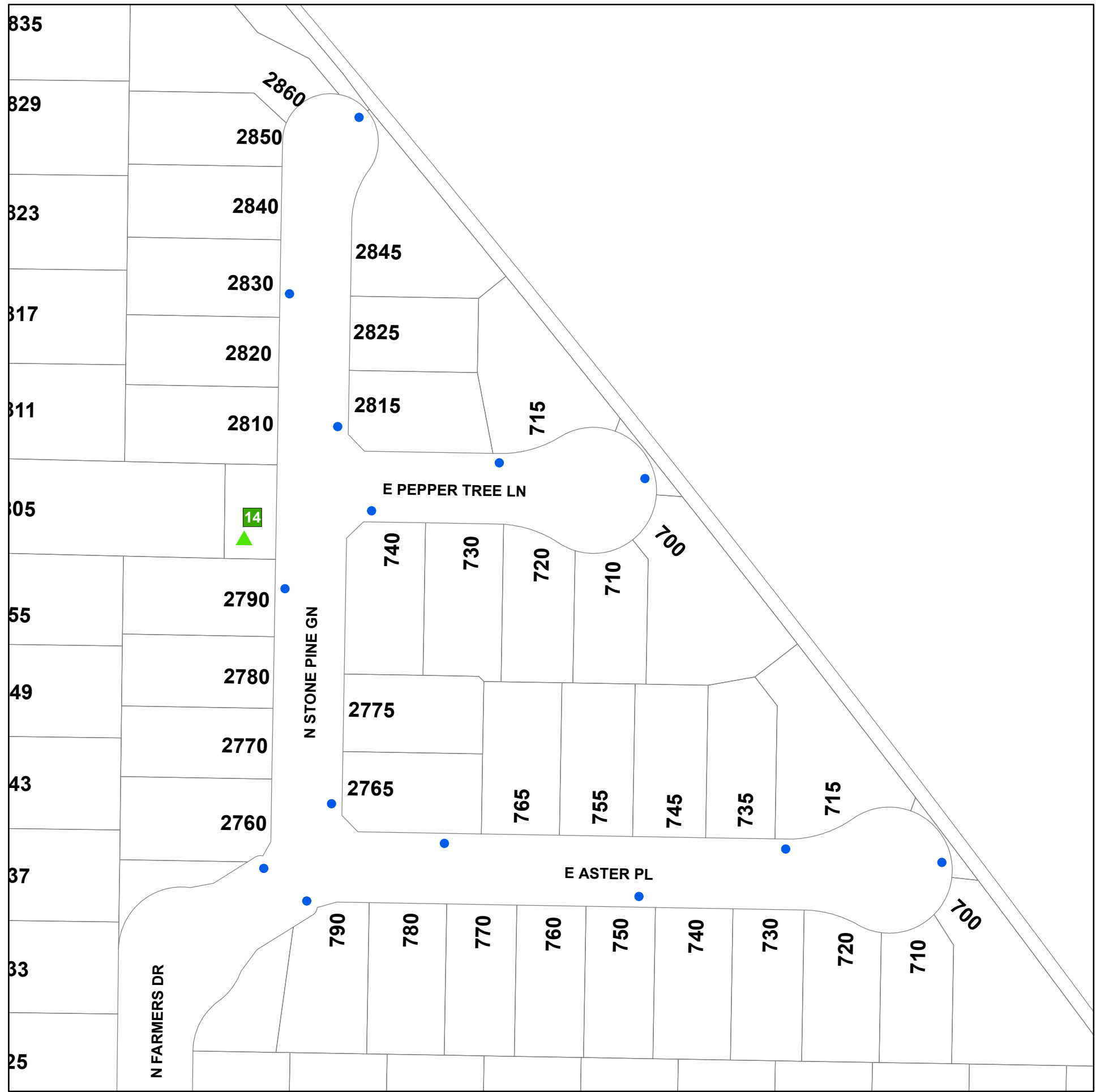
# STATION DISTRICT



- Legend**
- Low Voltage Conduit
  - Light Fixture
  - Service Point
  - Light Count per SP



# THE RETREAT



**Legend**

- Low Voltage Conduit
- Light Fixture
- Service Point
- Light Count per SP

Map Data June 2014 - PWA - GIS

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Legend

- Low Voltage Conduit
- Light Fixture
- Service Point
- Light Count per SP



# WASHINGTON COURT

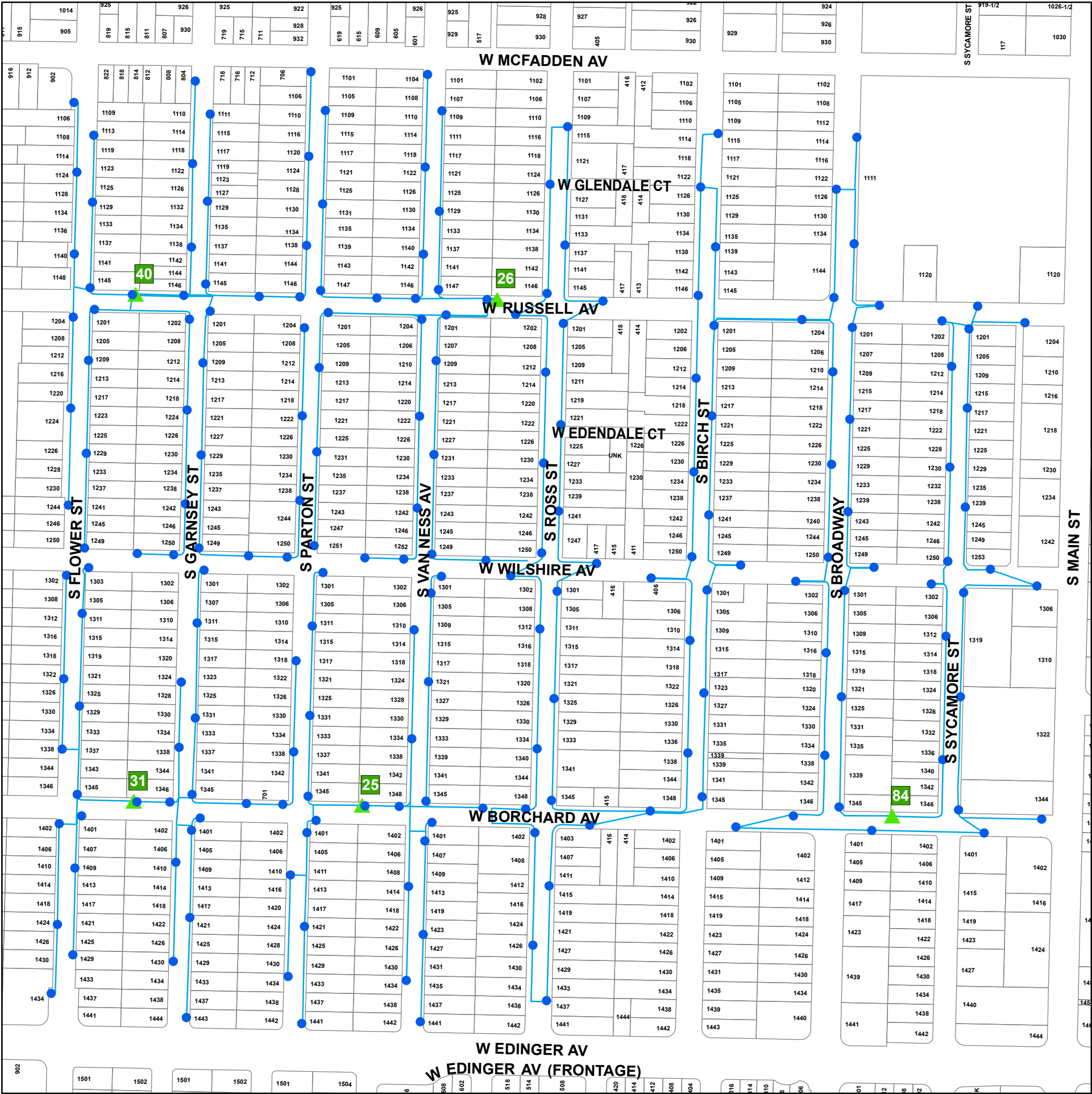


## Legend

- Low Voltage Conduit
- Light Fixture
- Service Point
- Light Count per SP



WILSHIRE



- Legend**
- Low Voltage Conduit
  - Light Fixture
  - Service Point
  - Light Count per SP

