Meeting Date: **9/30/2014**

Report Type: Consent

Report ID: 2014-00680

City of SACRAMENTO **07**

City Council Report
915 I Street, 1st Floor
www.CityofSacramento.org

Title: Change Order No. 2: LED Streetlight Conversion Project (C13001900) (Reviewed 09/23/2014)

Location: Citywide

Recommendation: 1) Pass a Motion A) authorizing the City Manager or the City Manager's designee to execute Change Order No. 2 to City Contract 2014-0559 with Siemens Industry, Inc. in the amount of $4.85 million to authorize Phase III of the Light Emitting Diode (LED) Streetlight Conversion project, bringing the total not-to-exceed amount of the contract to $4.92 million; B) ratifying Change Order No. 1 to City Contract 2014-0559; and C) resetting the City Manager's authority to issue change orders for this Agreement; 2) Pass a Resolution A) authorizing the City Manager or the City Manager's designee to transfer the following amounts to the Energy Reinvestment Program capital improvement project (CIP) (C13001900) for the LED Streetlight Conversion Project: (1) Citywide Landscaping & Lighting (L&L) Fund (Fund 2232) appropriations from: (a) the Neighborhood Streetlight Replacement Program CIP (T15103200) in the amount of $1,371,000; and (b) the Neighborhood Streetlight Replacement CIP (T15073200) in the amount of $562,000; (2) L&L Fund (Fund 2232) fund reserves in the amount of $1,067,000; (3) Major Street Construction Fund (Fund 2007) appropriations from: (a) the Safety Lighting Replacement CIP (T15073300) in the amount of $566,000; and (b) the Neighborhood Streetlight Replacement CIP (T15073200) in the amount of $199,000; (4) Gas Tax Fund (Fund 2002) appropriations from the Major Streetlight Replacement Program CIP (T15103300) in the amount of $235,000; (5) Capital Improvement Revenue Bond Funds (Funds 3001-3006) fund reserves in an amount up to $750,000; (6) General Fund (Fund 1001) administrative contingency in an amount up to $350,000; General Fund administrative contingency will be replenished as available resources are identified; (7) the use of Capital Improvement Revenue Bond Funds and General Fund administrative contingency shall not exceed $850,000 in total; B) directing the energy-cost savings from this project to be used first to refund the L&L Fund balance, secondly to refund L&L projects that were unfunded in order to redirect funds to this project, and third to fund future components of Phase III that are eligible for L&L expenditures or other L&L purposes; C) finding that circumstances are such that a variance to the City Manager's authority to issue change orders for Contract No. 2014-0559 is appropriate; and D) declaring for purposes of Chapter 3.60 of the Sacramento City Code, the amount stated in Change Order No. 2 of the Contract for the Phase III construction of the improvements ($4,850,000) shall be considered the 'original contract award amount' and the issuance of all change orders shall be based on that amount.

Contact: Yvette Rincon, Program Manager, (916) 808-5827, Department of General Services; Sompol Chatusripitak, Senior Engineer, (916) 808-8427, Department of Public Works

Presenter: None

Department: General Services
Division: Architecture & Engineering
Dept ID: 13001541
Attachments:
1-Description/Analysis
2-Background
3-Resolution
4-Change Order No. 2

City Attorney Review

Approved as to Form
Kourtney Burdick
9/22/2014 9:21:28 AM

Approvals/Acknowledgements

Department Director or Designee: Reina Schwartz - 9/16/2014 9:30:59 AM

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Description/Analysis

Issue Detail: On August 27, 2013, City Council adopted Resolution No. 2013-0288 suspending competitive bidding and authorizing the use of a request-for-proposal (RFP) process to solicit firms to provide energy efficiency upgrades and related services for various City facilities and streetlights. Siemens Industry, Inc. ("Siemens") was selected through the RFP process and staff has been working with Siemens on a plan to make energy efficiency improvements to City streetlights. This report concerns converting 9,226 City streetlights (the mast-arm fixtures) from inefficient high intensity discharge (HID) lamps to LED lights.

Converting these streetlights includes three phases, described in detail in Attachment 1. Siemens has already completed the Phase I preliminary audit, and the Phase II investment-grade audit. Through these two phases, specific fixtures, costs and savings have been identified for the conversion of all 33,700 streetlights to LED lights. Executing Change Order No. 2 to Contract No. 2014-0559 will provide the funding to proceed with a portion of Phase III of the project to convert the 9,226 existing mast-arm fixtures to more efficient LED lights that have 7-pin photocell receptacles, authorize geographic information systems (GIS) mapping of the new fixtures, and mark all 33,700 City streetlight fixtures with an asset identification tag, which will provide for accurate asset inventory, efficient maintenance tracking, and effective customer service, at a cost of $4.85 million. Phase III is expected to be completed in mid-2015 and reduce energy usage by five million kilowatts (kWh) annually, saving the City approximately $360,000 in energy costs each year. The energy-cost savings from this project will be used first to refund the Citywide Landscaping & Lighting (L&L) Fund reserves, secondly refund L&L projects that were unfunded in order to redirect funds to this project and then to fund future components of Phase III projects that are eligible for L&L expenditures or other L&L purposes.

This report also recommends that City Council pass a resolution setting the City Manager's change order authority based on the cost of Phase III of the project (construction and related services), which is $4.85 million (as set forth in proposed Change Order No. 2), as opposed to the original cost of the contract ($0), which was the City's cost for Siemens completing Phase I (the preliminary audit). Typically the City Manager's change order authority is based on the original contract award price, which usually covers the cost of the construction improvements. In this case the original contract award price was based on Phase I of the project which Siemens performed at zero cost to the City. Setting the City Manager's change order authority based on the cost of Phase III is appropriate as it will allow the City Manager to address construction change orders in a timely manner based on the full scope of the project as opposed to the $0 cost preliminary work that was done in Phase I to assess all facets of the work.

Policy Considerations: LED streetlight conversions are a best practice that has been proven to save significantly on energy costs. Converting inefficient streetlights to LEDs not only saves on energy costs but also saves on equipment costs and reduces the impact on the environment. The project also is expected to result in savings for equipment replacement in the future. The City's existing lighting fixtures have a useful life of about five years whereas the LEDs will come with a 10-year warranty and have a useful life of about 15-20 years. This means the City will not pay for a new LED streetlight fixture for at least 10 years, and possibly 15-20 years.

Economic Impacts: The recommended contract is expected to create 19.4 jobs (11.2 direct jobs and 8.2 jobs through indirect and induced activities) and create $2.995 million in total economic output ($1.888 million of direct output and another $1.107 million of output in indirect and induced activities).

The indicated economic impacts are estimates calculated using a calculation tool developed by the Center for Strategic Economic Research (CSER). CSER utilized the IMPLAN input-output model (2009 coefficients) to quantify the economic impacts of a hypothetical $1 million of spending in various construction categories within the City of Sacramento in an average one-year period. Actual impacts could differ significantly from the estimates and neither the City of Sacramento nor CSER shall be held responsible for consequences resulting from such differences.

Environmental Considerations:

California Environmental Quality Act (CEQA): No environmental review is necessary because the recommendation in this report involves the minor alteration of an existing structure with no expansion beyond the previously existing level of use and is therefore considered to be an exempt project or activity in accordance with Section 15301 of the CEQA Guidelines.

Sustainability: The LED streetlight conversion project is identified as an implementation item in the City's Internal Operations Climate Action Plan. This project is critical to the City meeting its goal to reduce greenhouse gas emissions 20 percent by 2020.

Commission/Committee Action: None

Rationale for Recommendation: Converting the City's existing streetlights to LED lighting will not only save the City $360,000 in energy costs annually, it is expected to reduce equipment replacement costs for 10, and possibly up to 15-20 years, and reduce energy usage by five million kWh annually. In addition, the GIS mapping and asset tagging of the entire inventory of streetlights will put the City in a position to readily convert the rest of the inventory. Finally, the 7-pin photocell receptacles will allow the City the option to add additional services in the future to the LEDs such as dimming capabilities, monitoring of energy consumption, and WIFI services.

Financial Considerations: The LED Streetlight Conversion Project is a project within the Energy Reinvestment Program CIP (C13001900). Additional funding is necessary to complete the project. Upon completion of the recommended transfers, sufficient funding will exist in C13001900 to execute Change Order No. 2 with Siemens in the amount of $4.85 million. The recommended fund transfers are detailed in the table below. Sufficient funds are available in all the funding sources noted below to support the required transfers to C13001900.

Fund	Source	Amount
Citywide Landscaping & Lighting Fund (Fund 2232)	CIP T15103200	$1,371,000
	CIP T15073200	$562,000
	Fund reserves	$1,067,000
Major Street Construction Fund (Fund 2007)	CIP T15073300	$566,000
	CIP T15073200	$199,000
Gas Tax Fund (Fund 2002)	CIP T15103300	$235,000
Capital Improvement Revenue Bond Funds (Funds 3001-3006)	Estimated bond proceeds and interest earnings	Up to $750,000*
General Fund (Fund 1001)	Estimated administrative contingency	Up to $350,000*

*Final FY2013/14 year-end reconciliation of Capital Improvement Revenue Bond Funds will determine the amount of bond resources available for this project. Initial estimates indicate

that approximately $500,000 is available for this project. However, if available bond resources are greater than current estimates, the use of General Fund administrative contingency will be reduced to the amount needed to provide the $850,000 of project funding from these resources. The total funding from the Capital Improvement Revenue Bond Funds and General Fund administrative contingency shall not exceed $850,000.

The City may be eligible for utility rebates from the Sacramento Municipal Utility District (SMUD) as a result of this project. Any utility rebates received, after deducting staff costs to administer the project, will be deposited into the Energy Reinvestment Program CIP for future projects.

Local Business Enterprise (LBE): At the time the RFP was released for the project, the LBE requirements were not yet in place. Siemens' regional office is located in West Sacramento.

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Attachment 1

Background

On August 27, 2013, City Council adopted Resolution No. 2013-0288 suspending competitive bidding and authorizing the use of an RFP process to solicit firms to provide energy efficiency upgrades and related services for City facilities, which includes streetlights. On August 29, 2013 the Department of General Services issued RFP No. P14131541001. Three proposals were submitted and evaluated by a selection committee consisting of City staff and the Sacramento Public Library Authority staff. The committee completed the RFP review process in November 2013. As a result of the process, Siemens Industry, Inc. was the top ranked firm.

Converting City streetlights to LED lights consists of the following three phases: 1) preliminary audits; 2) investment grade audits; and 3) construction.

- Phase I: The preliminary audit was completed by Siemens at no cost to the City. This phase was geared toward the identification of the potential light fixtures, understanding the many different fixture configurations, and understanding the GIS data for the streetlights. The audit resulted in a preliminary, high-level, energy-use analysis, and a concise report detailing the findings, which included identifying a variety of efficiency opportunities. This phase was completed in April 2014.

- Phase II: On August 18, 2014 Change Order No. 1 in the amount of $70,000 was executed under City Manager authority to allow Siemens to proceed to Phase II, the investment grade audit, of the project to evaluate the potential upgrades for projects that show the best return on investment in Phase I. Siemens provided detailed cost and savings information based on sub contractor bids and quotes for equipment cost from distributors. This phase was completed in July 2014.

- Phase III: Using the results from Phase II, $4.85 million is recommended for conversion of a portion of the City's streetlights. The first conversion will be done with the City's mast-arm fixtures; these are larger fixtures typically seen at street intersections. These lights were chosen as the first priority for conversion since they represent almost 50 percent of the City's energy usage for streetlights while only making up a third of the City inventory. The conversion will include installing 9,226 LED mast-arm fixtures with 7-pin photocell receptacles as well as the GIS mapping and asset tagging of the entire inventory, 33,700, of City fixtures. The conversion will begin soon after City Council approval and will be completed in mid-2015.

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RESOLUTION NO. 2014-

Adopted by the Sacramento City Council

September 30, 2014

AUTHORIZING FUNDING TRANSFERS TO THE ENERGY REINVESTMENT PROGRAM AND SETTING CHANGE ORDER AUTHORITY FOR THE LED STREETLIGHT CONVERSION PROJECT (C13001900)

BACKGROUND

A. The construction of the LED Streetlight Project includes the conversion of approximately 9,226 mast-arm fixtures from inefficient high intensity discharge (HID) lamps to light-emitting diodes (LED) lights. This conversion will reduce the City's energy usage and cost annually, equating to 5 million kilowatts (kWh) used and $360,000 in energy-cost savings. The City has selected Siemens Industry, Inc. ("Siemens") as the contractor for the project pursuant to City Contract 2014-0559 (the "Contract").

B. Under the Contract, the project was planned in three phases: the preliminary audit (Phase I), the investment grade audit (Phase II), and construction of the improvements (Phase III). Siemens has completed the first two phases and is ready to proceed to Phase III. Although the project was planned for three phases, the original contract amount was $0, which was the City's cost for Phase I (the preliminary audit).

C. City Code section 3.60.210 establishes cumulative limits on the City Manager's authority to approve construction change orders based on the original amount of the contract.

D. City Code section 3.60.240 allows the City Council by Resolution to increase the limit on the City Manager's change-order authority for a specific contract where the City Council finds that circumstances are such that a variance is appropriate. City staff has recommended that the City Council increase the City Manager's change order authority for this project and set his authority based on the Phase III cost of the project—$4.85 million (as stated in Change Order No. 2, attached as Exhibit A)—as opposed to the original contract amount ($0).

E. Setting the City Manager's change order authority based on the cost of Phase III is appropriate because it will allow the City Manager to address construction change orders in a timely manner based on the full scope of the project as opposed to merely the $0 cost preliminary work that was done in Phase I to assess all facets of the work.

F. The LED Streetlight Conversion Project is a project within the Energy Reinvestment Program capital improvement project (C13001900). Monetary transfers from various funds into C13001900 are necessary to fully fund the project. Sufficient funds are available in all the fund sources noted below to support the required transfers to C13001900.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

Section 1. The City Manager or the City Manager's designee is authorized to transfer the following amounts to the Energy Reinvestment Program capital improvement project (CIP) (C13001900) for the LED Streetlight Conversion Project:

a) Citywide Landscaping & Lighting (L&L) Fund (Fund 2232) appropriations from: i) the Neighborhood Streetlight Replacement Program CIP (T15103200) in the amount of $1,371,000; ii) the Neighborhood Streetlight Replacement CIP (T15073200) in the amount of $562,000;

b) L&L Fund (Fund 2232) fund reserves in the amount of $1,067,000;

c) Major Street Construction Fund (Fund 2007) appropriations from: i) the Safety Lighting Replacement CIP (T15073300) in the amount of $566,000; ii) the Neighborhood Streetlight Replacement CIP (T15073200) in the amount of $199,000;

d) Gas Tax Fund (Fund 2002) appropriations from the Major Streetlight Replacement Program CIP (T15103300) in the amount of $235,000;

e) Capital Improvement Revenue Bond Funds (Funds 3001-3006) fund reserves in an amount up to $750,000;

f) General Fund (Fund 1001) administrative contingency in an amount up to $350,000. The General Fund administrative contingency will be replenished as available resources are identified.

g) The use of Capital Improvement Revenue Bond Funds and General Fund administrative contingency shall not exceed $850,000 in total.

Section 2. The energy-cost savings from this project will be used first to refund the L&L Fund balance, secondly refund L&L projects that were unfunded in order to redirect funds to this project and third to fund future components of Phase III that are eligible for L&L expenditures or other L&L purposes.

Section 3. City Council finds that circumstances are such that a variance to the City Manager's authority to issue change orders for Contract No. 2014-0559 is appropriate.

Section 4. For purposes of Chapter 3.60 of the Sacramento City Code, the amount stated in Change Order No. 2 of the Contract for the Phase III construction of the improvements ($4,850,000) shall be considered the 'original contract award amount' and the issuance of all change orders shall be based on that amount.

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- Exhibit A: Change Order No. 2

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City of Sacramento

Tax ID # if applicable:

Requires Council Approval: ☐ No ☒ YES Meeting:

☐ Real Estate ☐ Other Party Signature Needed ☐ Recording Requested

General Information

Type: Public Project **PO Type:** **$ Not to Exceed:** $ 4,850,000.00	**Attachment: Change Order No.: 2** **Original Doc Number: 2014-0059**
Other Party: Siemens Industry, Inc.	**Certified Copies of Document::** 2
Project Name: Energy Efficiency Retrofit Project - Streetlights	**Deed:** ☐None ☐ Included ☐Separate
Project Number: 2230752 **Bid Transaction #:** P14131541001	**E/SBE-DBE-M/WBE:** 20%

Department Information

Department: General Services
Division: Facilities & Real Property Management
Project Mgr: Yvette Rincon
Division Mgr: Don Tucker
Contract Services: Tim Hopper Date: 09/30/14
Department Director: Reina J. Schwartz
PM Phone Number: (916) 808-5827
Org Number: 13001021
Comment:

Review and Signature Routing

Department	Signature	Date
Project Mgr:	YR	9/4/14
Contract Services:	[illegible]	9-8-14

City Attorney	Signature or Initial	Date
City Attorney:	KCB	9/9/14

☒ **Call Tim Hopper x8173** ☐ Notify for Pick Up

Authorization	Signature	Date
Schwartz, Reina Department Director:		
City Mgr: yes ☒ No ☐		

Contract Cover/Routing Form: Must Accompany ALL Contracts; however, is not part of the contract. (01-01-09)

For City Clerk Processing

Finalized:
Initial:
Date:

Imaged:
Initial:
Date:

Received:
(City Clerk Stamp Here)

City of SACRAMENTO
Department of General Services

City of Sacramento
CHANGE ORDER

Contract #: 2014-0559
Budget #:
Purchase Order #:

DATE: 9-30-14
Change Order #: 2
Today's Date: 9-30-14

TO: SIEMENS INDUSTRY, INC.
Contract For: ENERGY EFFICIENCY RETROFIT PROJECT- STREETLIGHT Design-Build (Phase III)

Upon mutual acceptance of this document the City of Sacramento, hereinafter referred to as "City"' and your firm, hereinafter referred to a "Contractor", in accordance with the terms and conditions of the original contract documents, you are hereby directed to make the following change or changes for the consideration set forth below:

Description:

1 *Guaranteed Maximum Price.* In accordance with the Contract, the parties would like to proceed with Phase III of the project: Construction. The City is exercising its option to add the Phase II Fee ($70,000) into the Guaranteed Maximum Price ("GMP"), as defined in the Contract, for Phase III. The GMP for Phase III, including the Phase II Fee, is $4,920,000.00:

The original contract sum was	$ 0.00
Net change by previous Change Orders	$ 70,000.00
The contract sum prior to this Change Order was	$ 70,000.00
The contract sum will be increased by this Change Order	$ 4,850,000.00
New contract sum including all Change Orders	**$ 4,920,000.00**

2. *Scope.* In addition to those tasks outlined in the Contract, Contractor shall also complete those tasks outlined in Attachment A to this change order.

3. *Project Schedule.* Contractor shall complete Phase III in accordance with the Project Schedule attached as Attachment B.

4. *Exhibits.*

   a. *Exhibit J.* Exhibit J in the Contract is deleted and replaced in its entirety with Attachment E to this Change Order.

5. *Attachment D.* As contemplated by Section 11 of Exhibit A of the Contract ("LIQUIDATED DAMAGES IF WORK NOT COMPLETED ON TIME"), City has calculated liquidated damages for Phase III of the project at $1,020.00 per day ("LDs"), explained further in Attachment D to this Change Order. Contractor shall pay the City LDs in accordance with the terms of the Contract.

Contractor agrees that the amount of increase or decrease in the contract sum specified in this Change Order shall constitute full compensation for the work required by this Change Order, including but not limited to all compensation for the additional costs, if any, which may accrue to the Contractor by reason of any change in work schedules, other contract or cost of the project in any way made necessary by this Change Order. The time for performance of the contract will be extended by 205 working days to complete the project by reason of the performance of the work required by this Change Order. Except as herein above expressly provided, Contractor further agrees that the performance of the work specified in this Change Order or the rescheduling of the other project work made necessary by this Change Order, shall not constitute a delay which will extend the time limit for completion of the work as said term is used in the contract between the City and Contractor for the project.

(*Signature Page Follows*)

City of
SACRAMENTO
Department of General Services

Approval Recommended By:

9/3/14

Project Manager Date

Approved By:

Reina J. Schwartz
Director, General Services

Approved By:

Russell DeNapoli
Director 9/5/14
Field Finance Operations

Contractor Date

Approved By:

City Clerk

Approved By:

City Attorney Date

Approved By Legal

Digitally signed by Bouchard Marc
DN: serialNumber=Z003995K, givenName=Marc, sn=Bouchard, o=Siemens, cn=Bouchard Marc
Date: 2014.09.05 09:44:14 -05'00'

NAME: Thomas Strollo
TITLE: Sr. Director
DATE: Field Operations

H:\Energy\Energy RFQ - 2013\Contracts\Change Orders\Change Order #2\Streetlights Phase III_Change Order 2_08-27-14_SM redline.docx

ATTACHMENT "A"

SCOPE OF WORK

ATTACHMENT A

Scope of Work

CONTRACTOR shall provide all labor, facilities, tools, materials, equipment and incidentals as required for replacing 9,226 Mast Arm fixtures with light emitting diode ("LED") fixtures (reference Attachment "F" for Streetlight location maps). No photocells shall be provided or installed as part of the work provided by CONTRACTOR. CONTRACTOR shall provide and install shorting caps with photocell receptacles on the new Mast Arm fixtures.

The City reserves the right to alter the above fixture counts. Such alterations shall result in a change order, which shall be processed in accordance with the Sacramento City Code.

All LED fixtures and shorting caps shall be provided by CONTRACTOR for installation by CONTRACTOR. All work shall be performed in compliance with all applicable Federal, State and Local rules and regulations, including those governed by SMUD.

FIXTURE REPLACEMENT

The replacement of existing Mast Arm street lights at each pole location shall include the removal of the existing fixture(s), verification of fixture line voltage, installation of specified replacement fixture(s) and shorting cap(s) complete with correct pole and fixture ID labels visible from the ground, and adjustment and verification of luminaire(s) leveling. Where practical, CONTRACTOR shall verify operation of the newly installed fixture(s) through the master photocell. Master photocell locations shall be identified by the City. Contractor shall install the new shorting cap(s) and electronically document the installation with field data collection equipment. The quantity, type and description shall be as follows:

Pole Type	*Description	Quantity
Mast Arm	LED fixture with 7 PIN Photocell Receptacle equivalent to 200W High-Intensity Discharge (HID) fixture	9,226

**CONTRACTOR shall utilize the models specified in Attachment C (referred to as the "Base Models") unless the City specifies a different model be used. City shall be responsible for any increase in cost over and above the cost of the applicable Base Model.*

Installers shall be trained and licensed for the scope and nature of the work. Installers shall follow the recommendations of the lighting and component manufacturer's installation instructions and employ appropriate methods and procedures to ensure proper installation and performance of the replacement equipment. All work shall be completed in a workmanlike

manner and in accordance with manufacturer's installation instructions and all pertinent standards and regulations.

CONTRACTOR shall be responsible for the receipt, offloading, transportation, storage, inventory and warehouse management of all provided material. CONTRACTOR may invoice the City for the reasonable cost of all material suitably stored and inspected in accordance with City Standard Specification section 5-15. Such invoices must be accompanied by documentation acceptable to the City, which supports the expenses (e.g. receipts or other documentation that associates the stored product with the City's project). Warehouse shall be bonded and insured and shall cover loss and damage. The City shall be named as the insured party and the only Payee under the policy. The policy shall not be cancelled without thirty (30) day notice to the City or upon receiving a release letter from the City. CONTRACTOR shall be responsible for returning defective material, receiving replacement material, offloading, transportation, storage, inventory, and warehouse management of replaced material.

PROJECT MANAGEMENT

CONTRACTOR shall assign a project manager experienced in municipal street light replacement projects. The project manager shall engage with appropriate City staff to understand and document project concerns and objectives. A pre-construction kick-off meeting shall be scheduled upon which time a project implementation plan shall be presented by CONTRACTOR including project milestone schedule, coordination requirements, two-week look-ahead schedules, waste disposal plans, safety plans, traffic control approaches and responses to stakeholder concerns.

CONTRACTOR shall provide weekly job progress reports and conduct regularly scheduled field inspections focusing on craftsmanship, performance, and schedule. Any deficiencies shall be documented and corrected. CONTRACTOR shall also conduct bi-weekly project meetings with the City to discuss project progress, resident issues, public safety, traffic control, material waste handling, two week look-ahead schedules, site inspections, and project concerns and comments. Contractor shall also work with SMUD and the City to reconcile the Utility's existing inventory with the City's actual streetlight inventory.

PROJECT REPORTING

CONTRACTOR shall provide weekly job progress reports documenting manpower, work locations, field conditions, project progress and specific issues requiring City input. CONTRACTOR shall also provide bi-weekly progress reports to evaluate plan schedule versus field performance. In the event that the Project is behind schedule for any reason, a recovery plan shall be presented. CONTRACTOR shall also maintain an "Issues Log" documenting

Resident concerns, Public Works and Engineering concerns, and field implementation issues. Corrective performance and dates of corrective performance shall also be logged. The Issues Log shall serve as a dynamic project "punch list".

Upon completion of the effort, project records and reports including, but not limited to Universal Waste Disposal Logs, Prevailing Wage documents, lien releases, etc. shall be compiled by CONTRACTOR and submitted to the City for record purposes.

POLE & FIXTURE LABELING

City street light poles currently do not have pole labels. CONTRACTOR shall apply pole badge identification numbers to each of the 33,761 poles, as labeled in the existing GIS dataset that was provided by the City. Pole numbers shall be applied vertically and will be located approximately nine feet from the ground. All labels shall conform to PG&E Identification of Streetlight Luminaires (No. 015137).

Mast Arm fixture replacements shall be provided with stickers that meet the requirements of ANSI Standard C136.15.

GIS MAPPING

At the end of installation, CONTRACTOR shall generate and provide a GIS shape file report for the City's 33,761 poles based on the City's inventory in a format mutually-agreed upon by CONTRACTOR and the City. The report, at a minimum, shall include the following:

- Date installed
- Wattage of the existing lamp.
- Notes of any discrepancies between actual existing fixture and the database for the same fixture
- Wattage of the replacement fixture
- Voltage of the existing fixture
- Manufacturer / Model of the installed fixture
- Pole Badge Number
- GIS coordinate of fixture

CONTRACTOR shall utilize the GIS database information for progress reporting as well as the final or "as-built" installed inventory document. CONTRACTOR shall:

- Coordinate fixture counts and final reconciliation with the City
- Notify the City of any potential wiring and system issues discovered during implementation

- Manage Punch List provided or approved by CONTRACTOR and the City

Upon completion of the project, CONTRACTOR shall provide the City one (1) electronic copy of all final database documents including shape files and GIS maps. CONTRACTOR shall also provide training to City staff as needed.

TRAFFIC CONTROL

CONTRACTOR shall submit to the City for review and approval a plan showing traffic control measures for vehicles, pedestrians and bicycles affected by the construction work (the "Traffic Control Plan"). For emergency purposes, the responsible person in charge of the work must be reachable by phone 24 hours a day during the progress of the work. A 24-hour phone number shall be indicated on the permit application.

Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately by the CONTRACTOR at its expense.

Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners.

The Traffic Control Plan shall be developed with the following requirements:

1. All lanes of traffic, in each direction, must be open to traffic from 7:00 A.M. to 8:30 A.M. and from 4:00 P.M. to 6:00 P.M. and during periods when work is not in progress, unless otherwise specified by the City's designated engineer.

2. A maximum of one (1) lane shall be closed to traffic in any direction when work is in progress. Flaggers shall be provided during closure.

3. Residential and Commercial driveways may only be closed after giving property owners seventy-two (72) hours of notice in advance of the closure. Driveways may only be closed during normal work periods and while the CONTRACTOR is actively pursuing work which requires the driveway to be closed, except when forms are in place, or while concrete is being cured.

4. Commercial driveways shall remain open at all times, unless otherwise specified by the City Inspector. The CONTRACTOR shall schedule the commercial driveways to be poured in two phases unless more than one driveway is available to the property. The CONTRACTOR shall coordinate the driveway closure with property owners five (5) calendar days in advance.

5. All work within public streets and/or roadway right-of-way shall be done in an expeditious manner so as to cause as little inconvenience to the traveling public as possible.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals and for performing all work involved in public safety and convenience shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed.

REMOVAL OF ON-STREET PARKING

In the event that parking needs to be removed for the retrofit of streetlights, the following procedure will be followed:

In Metered Parking Areas:

Seventy-two (72) hours prior to construction, CONTRACTOR shall place signs adjacent to every third parking stall stating, "NO PARKING - (specific times and dates) - Tow Away" or "NO PARKING - (specific times and dates) - This Block". CONTRACTOR shall also contact the City Parking Division for site-specific instruction prior to placing barricades.

Signs shall be placed before 1:00 PM on the day selected to allow sufficient time for City inspection.

CONTRACTOR shall request the City Parking Division to cover each parking meter, prior to construction, with a "NO PARKING" sign and the signs previously placed adjacent to every third stall shall be mounted on a barricade and moved into the parking stall at the Contractors expense.

If CONTRACTOR needs less than the entire block, every stall removed shall be barricaded in conjunction with the covering of parking meters.

Where parking removal is necessary, at metered parking stalls, CONTRACTOR shall coordinate with the City Parking Division three (3) days in advance and shall be responsible for the payment of parking removal fees (City Code Section 25.122-1). It is recommended that CONTRACTOR consult with the City Parking Division (phone: 916-808-5874) to obtain an estimate of the fees for this project. Note: Typical fees are $29 to bag the first meter and $5 each additional meter. Daily meter fees are typically $2.25 each day Monday through Saturday.

In Non-Metered Parking Areas:

Seventy-two (72) hours prior to construction (except Monday work, barricades shall be placed on the prior Thursday), the CONTRACTOR shall place signed Type II barricades stating "NO PARKING - (specific times and dates) - Tow Away" or "NO PARKING - (specific times and dates) - This Block", at 50 to 60 foot intervals in the work area. The CONTRACTOR shall notify the City Parking Division prior to placing barricades. No fee is required in Non-metered zones.

"NO PARKING" signs shall be approved by the City's designated engineer prior to their use. "NO PARKING" signs and barricades shall be supplied by the CONTRACTOR. The CONTRACTOR shall notify the City's designated engineer immediately after the "NO PARKING" signs are in place.

Barricades shall be placed before 1:00 PM on the day selected to allow sufficient time for City inspection.

Failure to comply with this section will prevent the City from towing vehicles parked within the proposed work area until the provisions of this section have been met and will require rescheduling of planned work. Additionally, "NO PARKING" signs and barricades shall not be removed prior to removal/towing of vehicles in violation of posted "NO PARKING" signs.

Payment shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and payment of all fees required to perform all work, as specified in these Special Provisions and as directed by the City's designated engineer and shall be considered as included in the prices paid for the various contract items of work. No additional compensation will be allowed therefore.

FIXTURE DISPOSAL

CONTRACTOR shall be responsible for the collection, storage, disposal, and/or recycling of Universal Waste generated by this project in full accordance with California Code of Regulations, Title 22, Division 4.5, Chapter 23 and the provisions of the Contract. Examples of universal waste generated by this project include fixtures, lamps, ballasts, and other electronic components.

UTILITY INCENTIVES

CONTRACTOR shall:

- Identify applicable utility incentive programs and reconcile data with installation records prior to submission.
- Ensure analysis tool(s) used in compliance with utility incentive reporting requirements.
- Assist with completion of appropriate applications and provide required documentation for incentives available for this project. Documentation shall support removal of nonexistent and duplicate poles from the data source maps attached as Attachment F.

WARRANTY

At the completion of the project, CONTRACTOR shall provide the City with five (5) copies of written product submittals and warranties.

Upon City's acceptance of the Work, CONTRACTOR shall provide labor and equipment necessary to replace any failed mast arm fixture that had been replaced by CONTRACTOR within ten (10) days of receipt of City notice of an outage for a period of one (1) year following City's acceptance of Work. CONTRACTOR shall be responsible for coordination with all manufacturers to manage and implement manufacturer's warranty procedures including return of failed items and receipt of replacement items.

In the event that a product failure occurs within the first twelve (12) months of installation and acceptance by the City, the City shall first confirm that there is power to the pole and then notify CONTRACTOR of the failure. CONTRACTOR will replace the failed product at no cost to the City and shall process the replacements of the product(s) in full accordance with the Manufacturer's Warranty Statement(s).

CONTRACTOR shall not be responsible for "knock-downs" or other damage incurred to the products installed. All required maintenance shall be the responsibility of the City. Should CONTRACTOR respond to a Warranty call and find no power or issues other than failed components of craftsmanship issues, the City shall be responsible for reimbursing CONTRACTOR for reasonable and customary costs associated with such calls.

All lighting fixtures are provided with a 10-year manufacturer's material warranty that will be assigned to the City upon completion of the 1-year installation warranty.

PUBLIC OUTREACH

As requested by the City, Contractor shall collaborate with the City on various public outreach programs including, but not limited to, drafting press releases and conducting and preparing for interviews with local media. Web-page collaboration to provide citizens with visibility to technology, implementation schedule and positive impacts that the project will deliver to the City, flyers for hand-out by installation personnel to address Frequently Asked Questions, workshops with local stakeholders, "First Light Ribbon-Cutting" and "Final Light" events, mailings, post-installation project summary / case study.

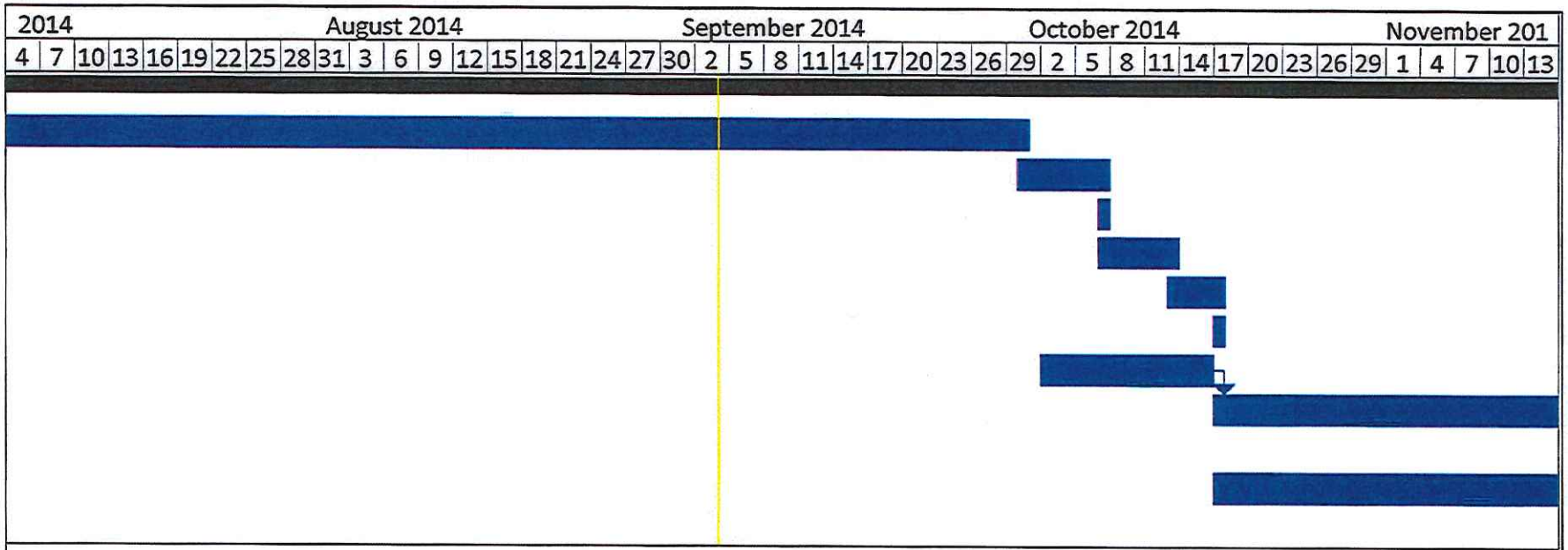
ATTACHMENT "B"

PROJECT SCHEDULE

ID		Task Name	Duration	Start	Finish
1		**Street Light Install Schedule**	**283 days**	**Tue 7/1/14**	**Thu 7/30/15**
2		Submittal Review & Council Approval	13.2 wks	Tue 7/1/14	Tue 9/30/14
3		City Clerk Processing	6 days	Tue 9/30/14	Tue 10/7/14
4		Sign Change Order	1 day	Tue 10/7/14	Tue 10/7/14
5		Procure Bond & COI	5 days	Tue 10/7/14	Mon 10/13/14
6		Notice to Proceed	5 days	Mon 10/13/14	Fri 10/17/14
7		Project Kick-off	1 day	Fri 10/17/14	Fri 10/17/14
8		Procure Cobra Head Fixtures	11 days	Thu 10/2/14	Thu 10/16/14
9		Install Cobra Head Fixtures-6500	53 days	Fri 10/17/14	Tue 12/30/14
10		Install Cobra Head Fixtures-2726	22 days	Thu 1/1/15	Fri 1/30/15
11		GIS Mapping/Pole Badging - 33,761	183 days	Fri 10/17/14	Tue 6/30/15
12		Project Close Out	22 days	Wed 7/1/15	Thu 7/30/15

Project: 2014 09 03_Sacramento
Date: Thu 9/4/14

Task		External Tasks	
Split		External Milestone	
Milestone		Deadline	
Summary		Progress	
Project Summary			



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Date: Thu 9/4/14

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Split		External Milestone	
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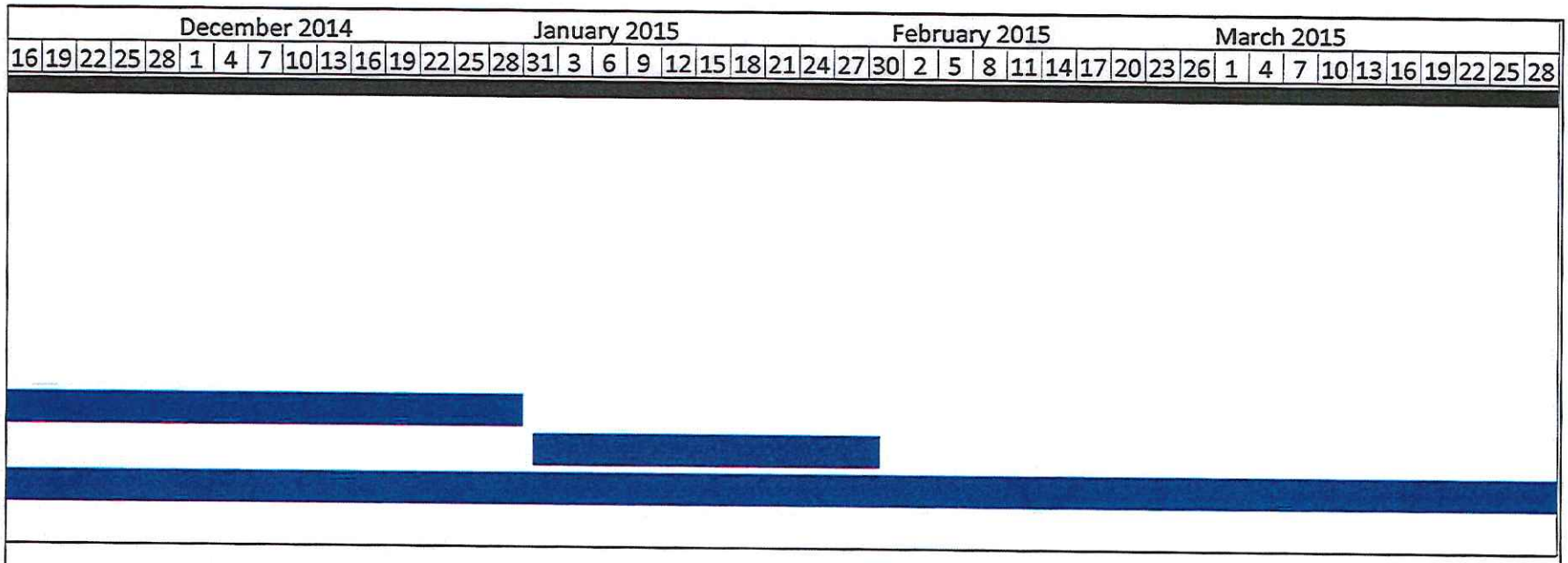
Summary		Progress	
Project Summary			



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Summary		Progress	
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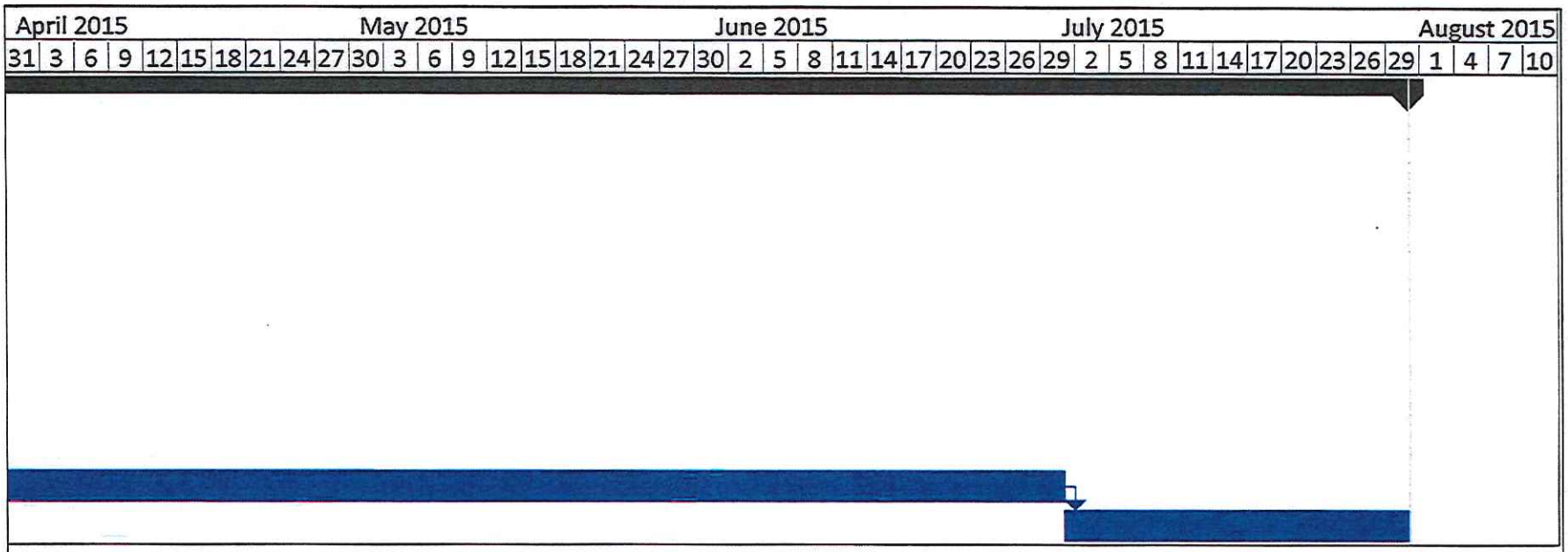


Project: 2014 09 03_Sacramento
Date: Thu 9/4/14

Task		External Tasks	
Split		External Milestone	
Milestone		Deadline	
Summary		Progress	
Project Summary			

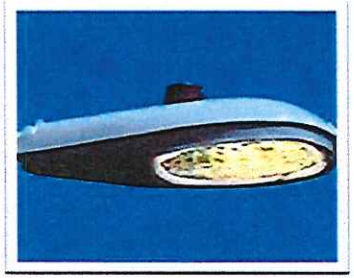
ATTACHMENT "C"

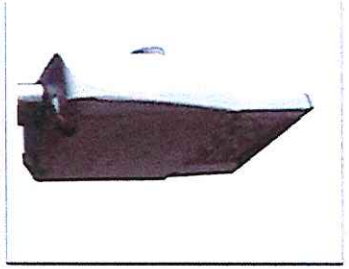
PRODUCT DATA SHEET

ATTACHMENT "C"

Product Data Sheet

9226 Cobra Head Fixtures	
LeoTek Ecobra-head (87W)	
EC3-10M-700	
200w Equivalent	
Photocell Recepticle	YES
Rated Life	100,000 hours
Warranty	10 years





ATTACHMENT "D"

LIQUIDATED DAMAGES ASSESSMENT

Exhibit K

Liquidated Damages Assessment

Project Name Citywide Energy Efficient Replacement Program

Project Manager Yvette Rincon

Direct Costs

					Extended Cost	
Project Manager	$150	per hour	@	1 Planned Hours per Day	$ 150.00	per day
Inspector	$120	per hour	@	6 Planned Hours per Day	$ 720.00	per day
Additional Costs	$75	per hour	@	2 Planned Hours per Day	$ 150.00	per day

Indirect Costs (As Applicable)

Rent (At alternate facility housing staff and programs)	$ -	per day
Lost Rent (Missed Programming Opportunities)	$ -	per day
Utilities	$ -	per day
Additional Costs	$ -	per day

Client Impacted Costs

Delayed Occupancy Costs	$ -	per day
Storage	$ -	per day
Furniture Removal & Reinstall	$ -	per day

Funding

Loss of Funding (Grants, Incentives, Loans)	$ -	per day

Total Amount of Liquidated Damages

$ 1,020.00 **per day**

ATTACHMENT "E"

GUARANTEED MAXIMUM PRICE

(REVISED EXHIBIT "J" TO THE AGREEMENT)

EXHIBIT J
~~Attachment E~~

GUARANTEED MAXIMUM PRICE AND FEE

1. Guaranteed Maximum Price. The **Guaranteed Maximum Price** as of the date of execution of the Contract is **WRITTEN AMOUNT** ($ 4,850,000.00). The GMP is comprised of the following.

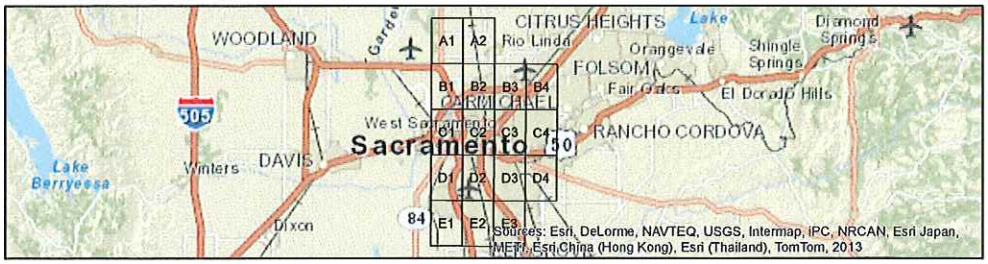
Professional Services:	**$ 0.00**
Professional Services Contingency[1]:	**$ 0.00**
Construction:	**$ 4,823,343.00**
Bonds:	**$ 26,657.00**
Insurance:	**$ Incl. in Construction**
Construction Contingency[1]:	**$ 0.00**
TOTAL	**$ 4,850,000.00**

Notes:
1. Contingency funds are owned and controlled by the City of Sacramento. Only the City has the authority to allocate use of contingency funds (Exhibit G, Section 1.4.12).

ATTACHMENT "F"

STREETLIGHT GIS MAPS

City of Sacramento - Mast Arms



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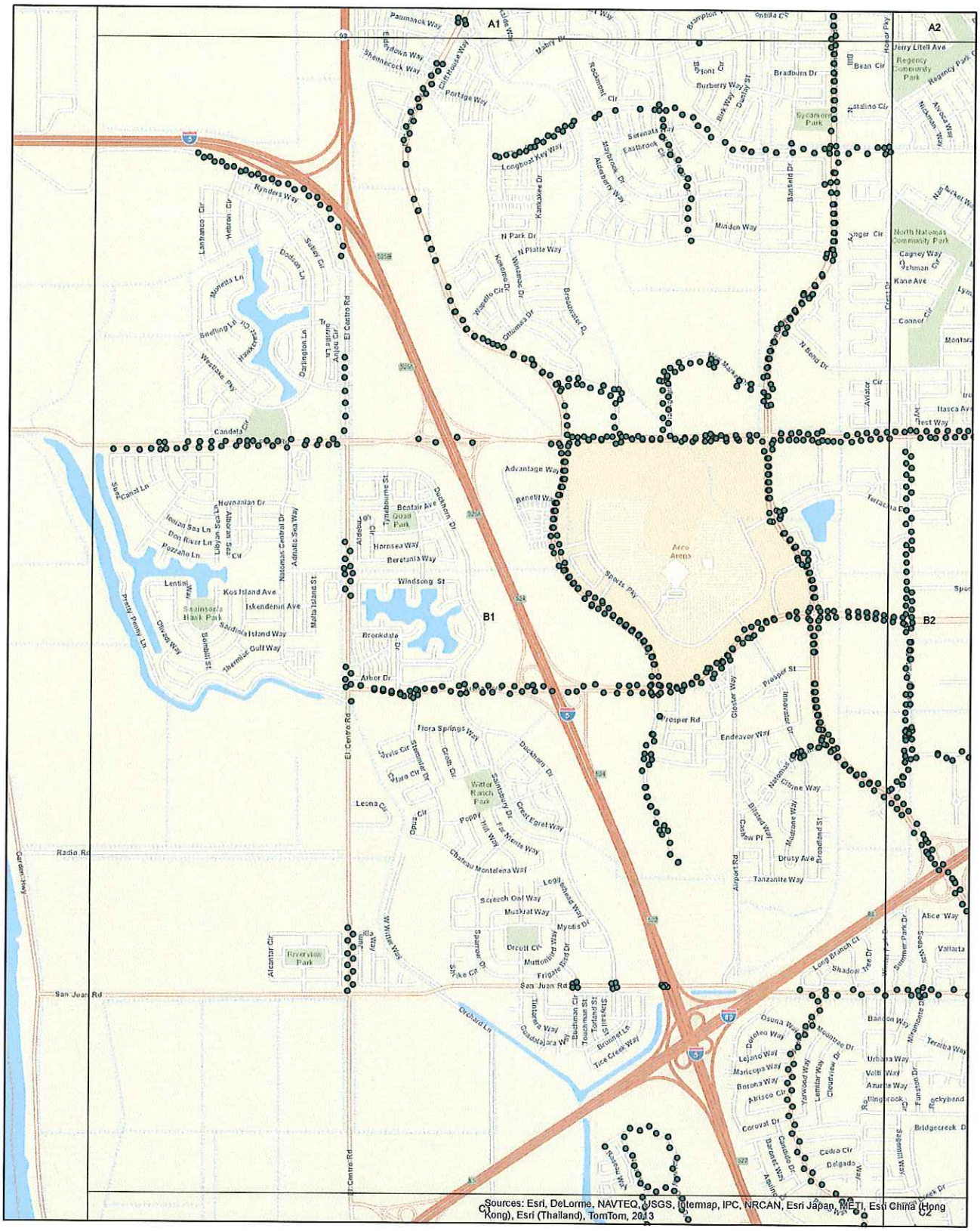

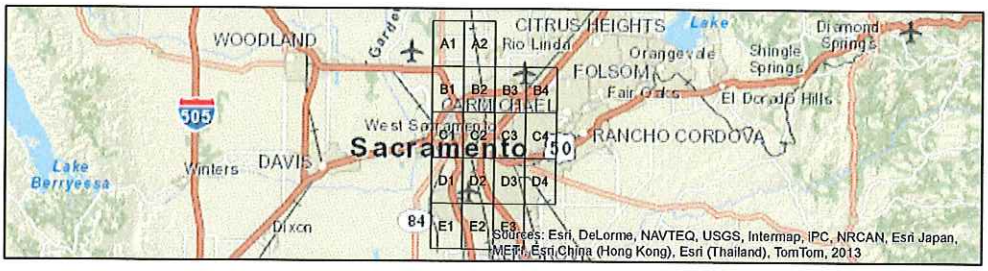

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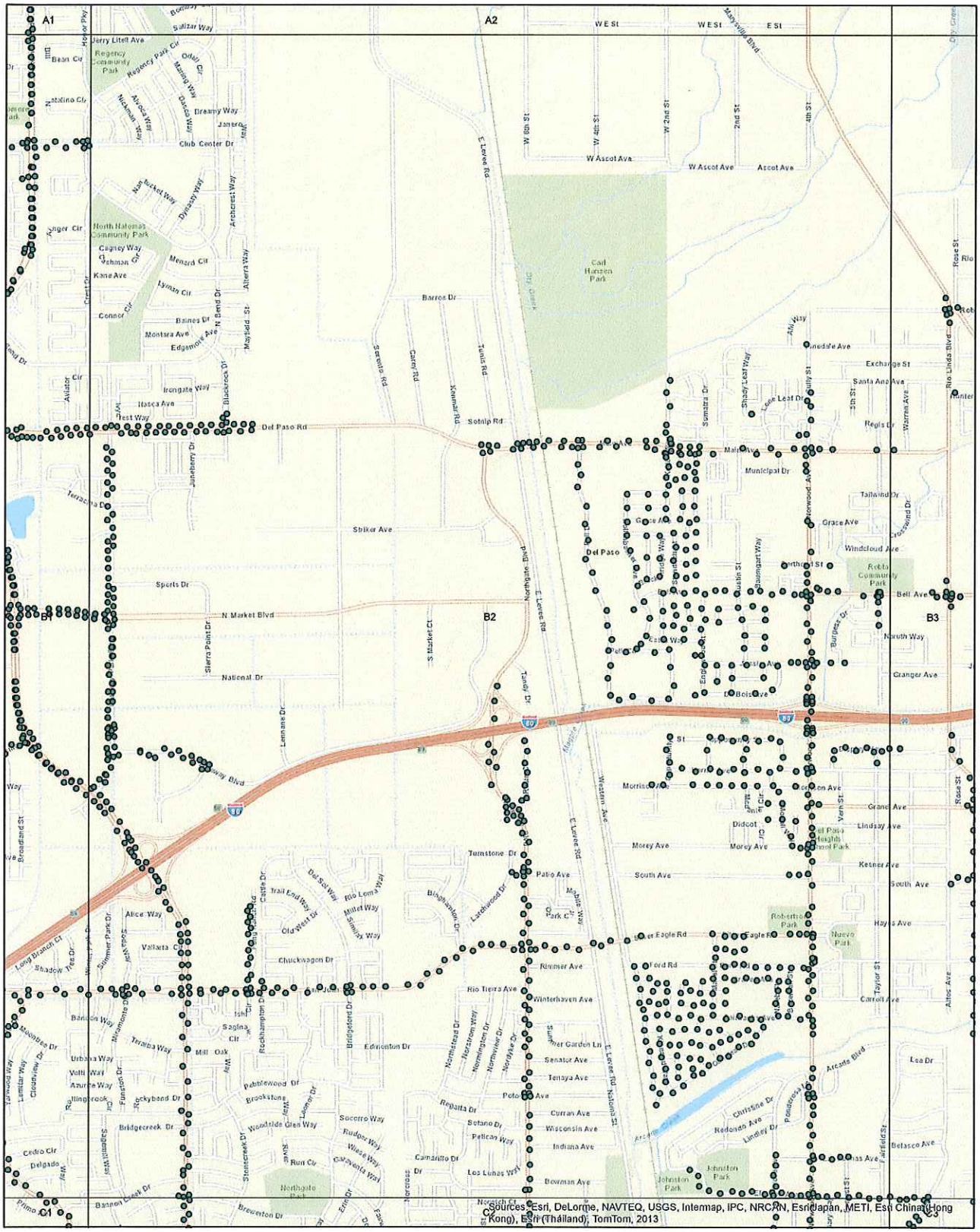

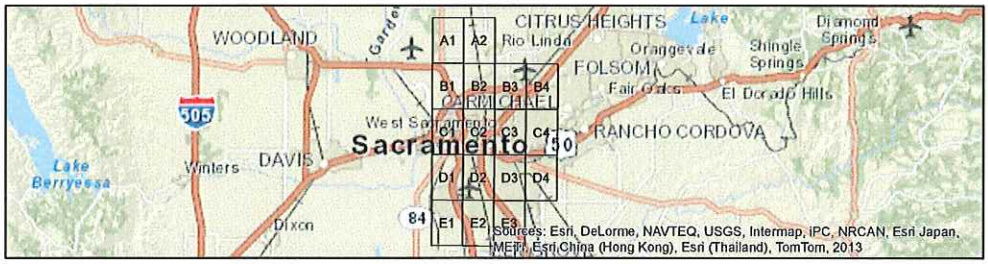

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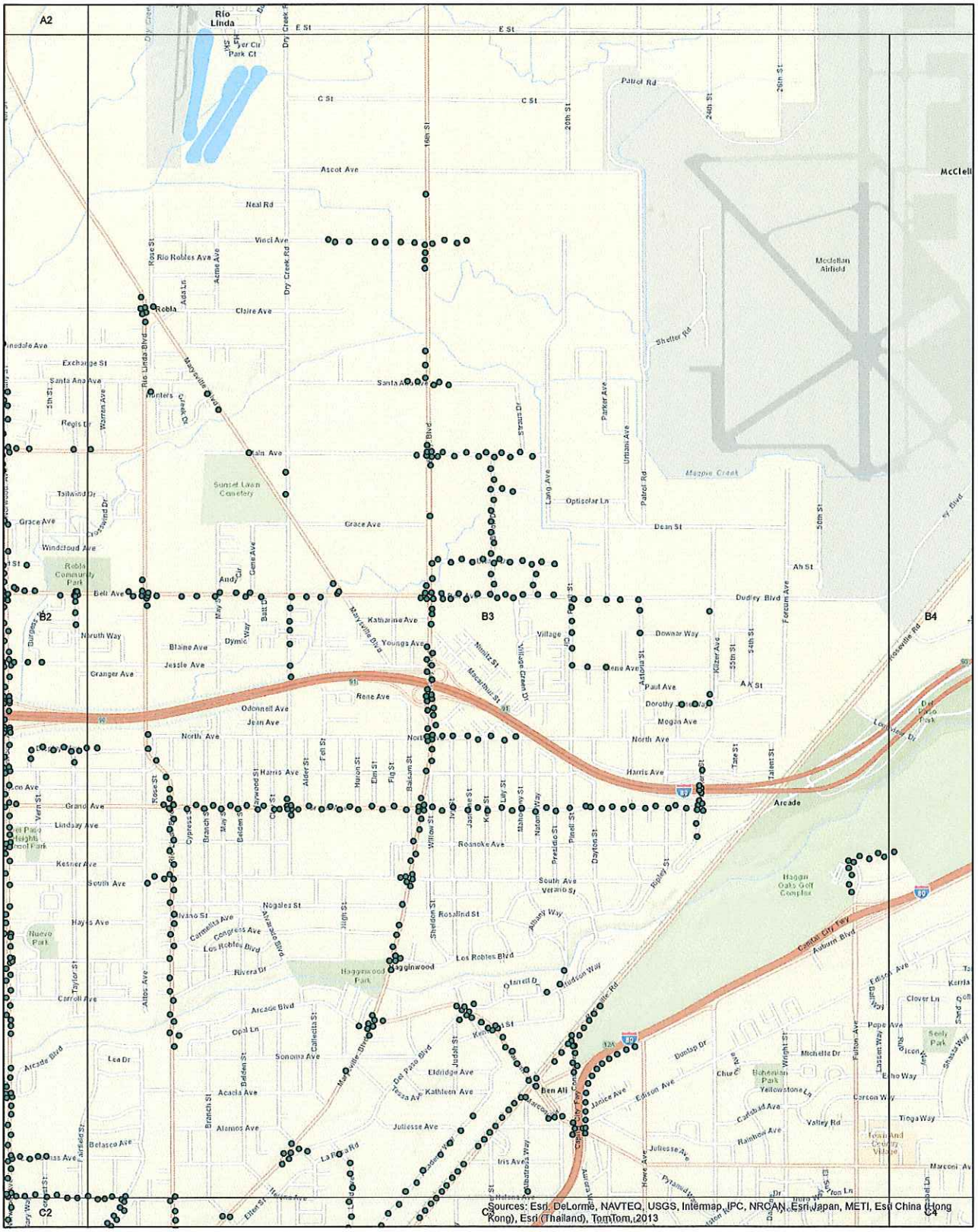

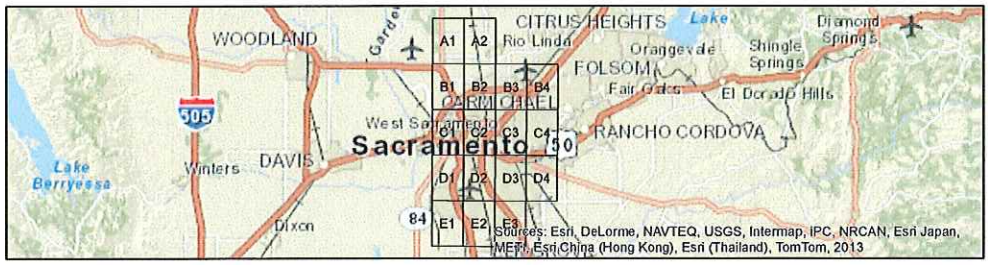

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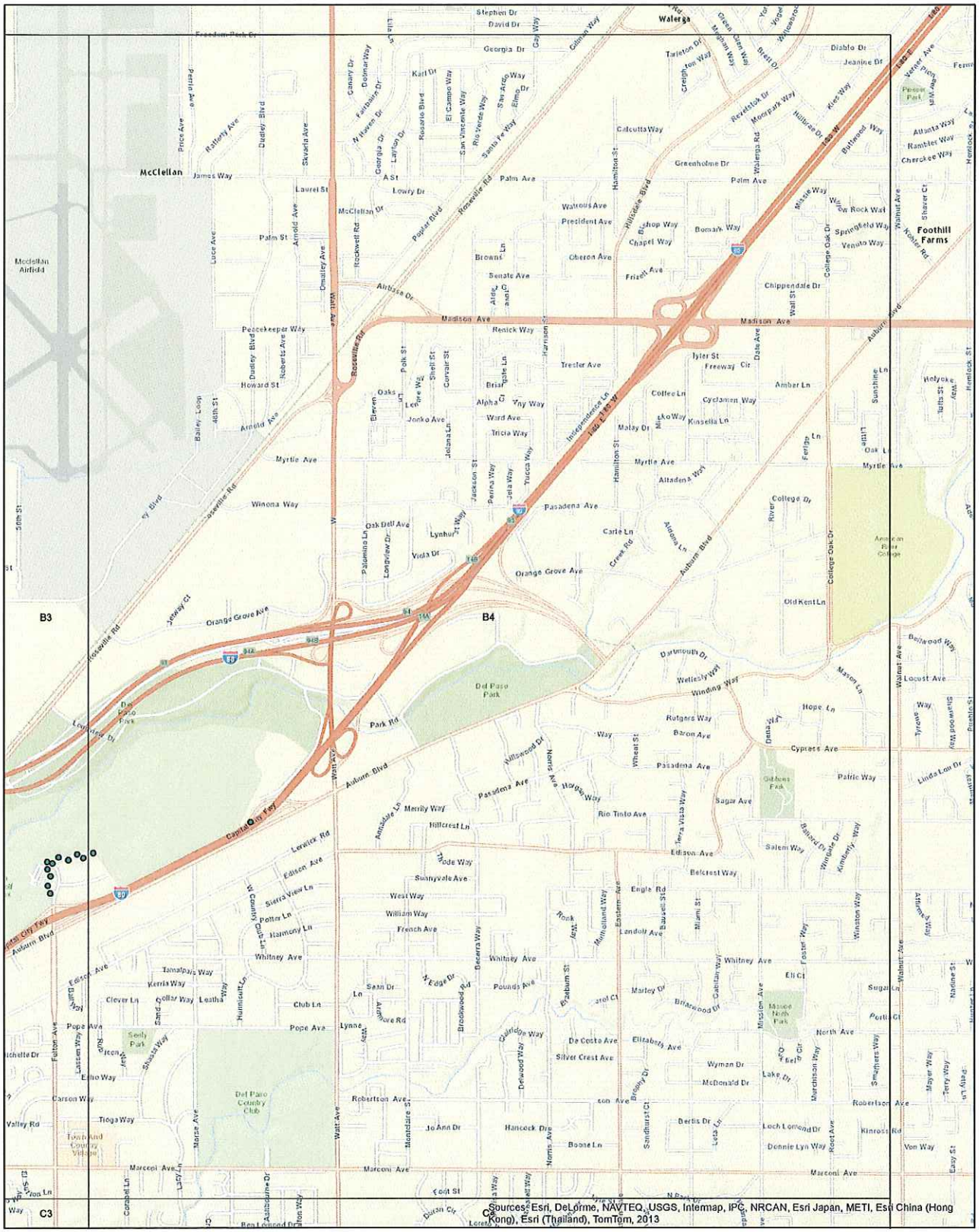

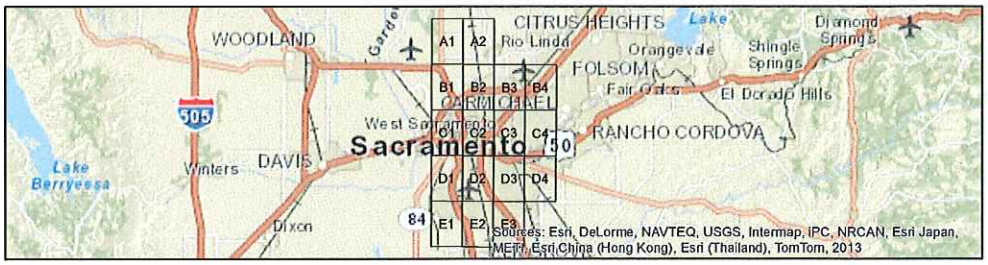

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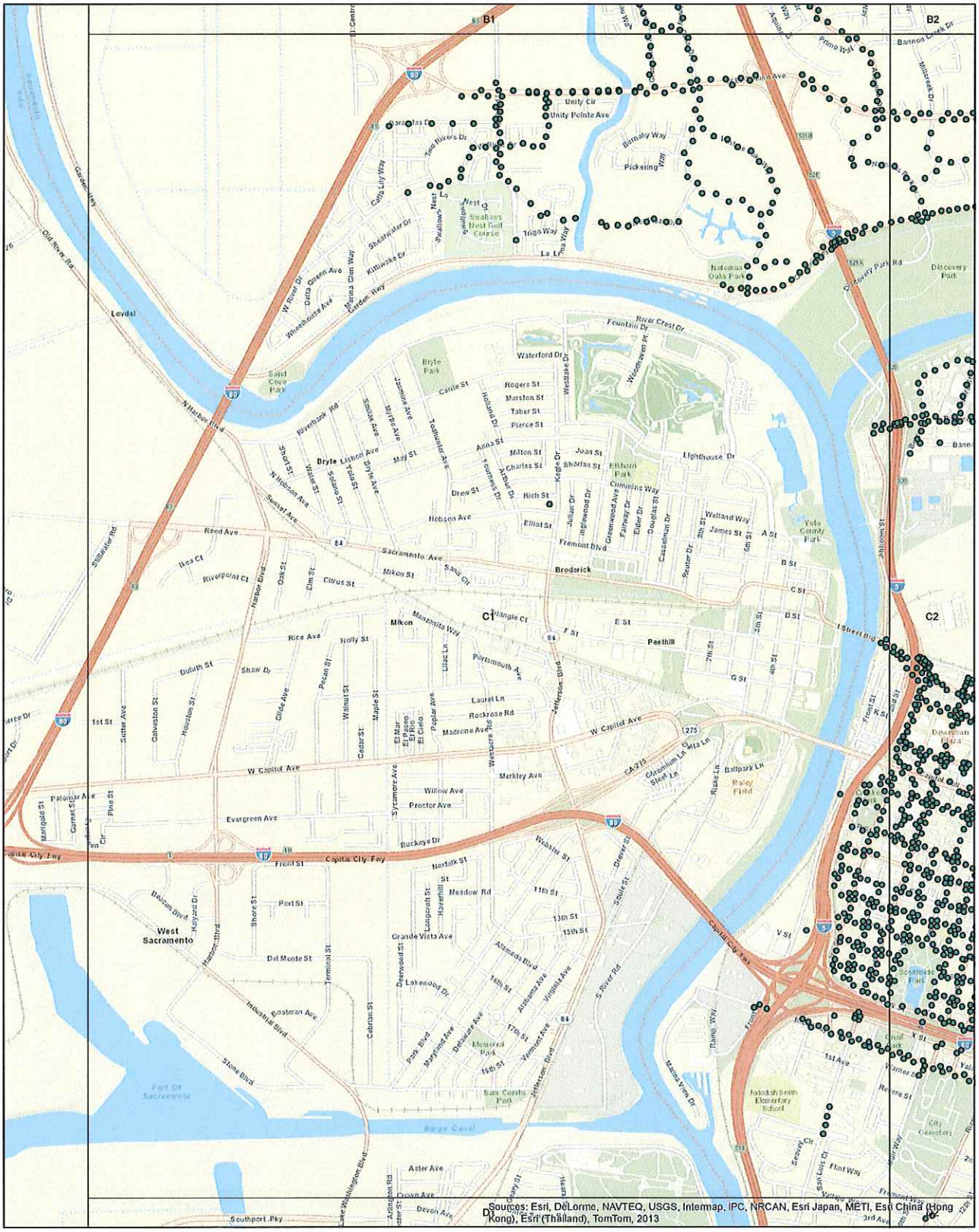

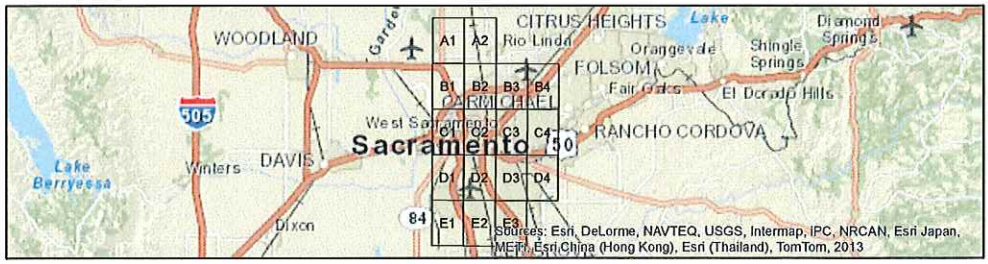

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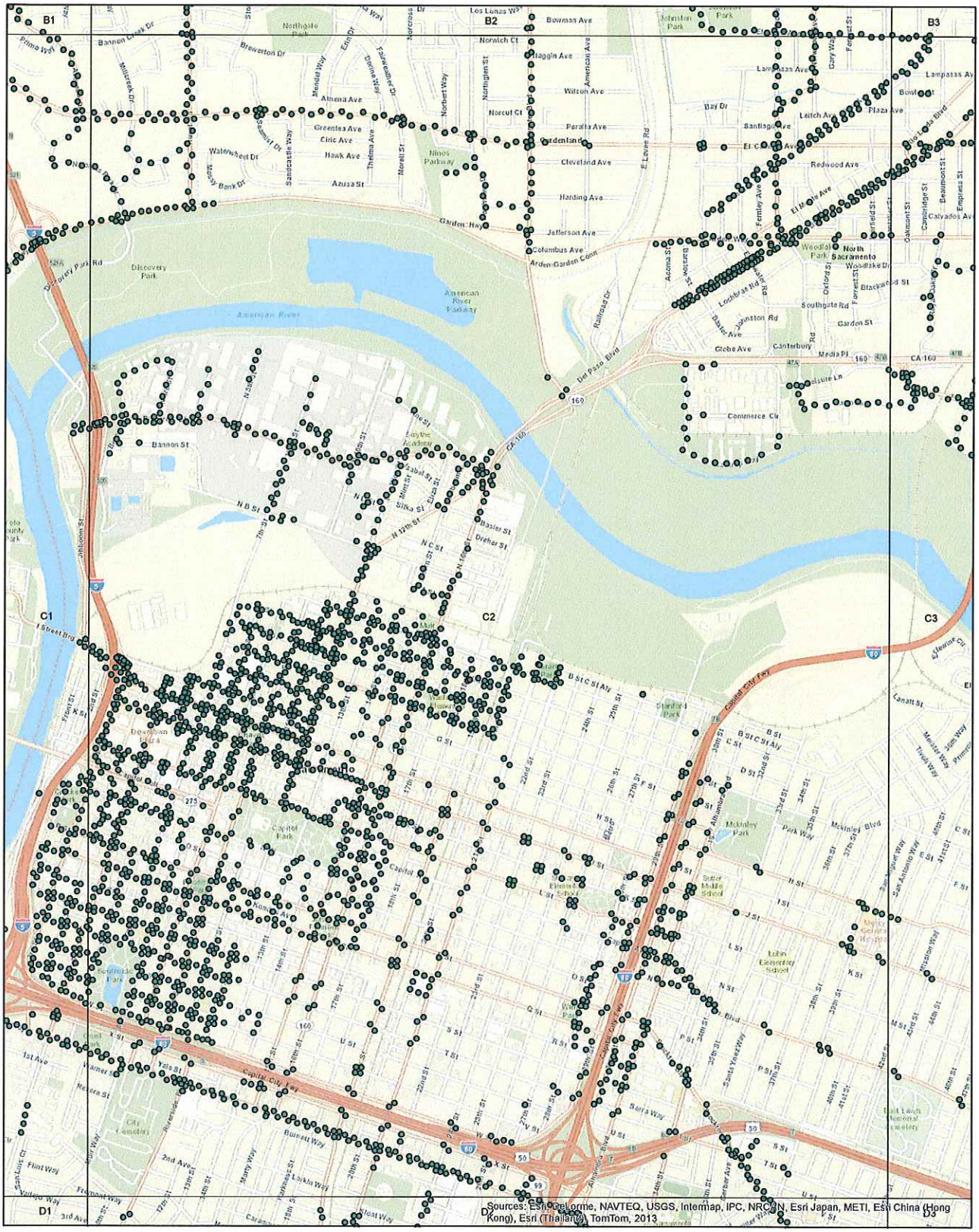

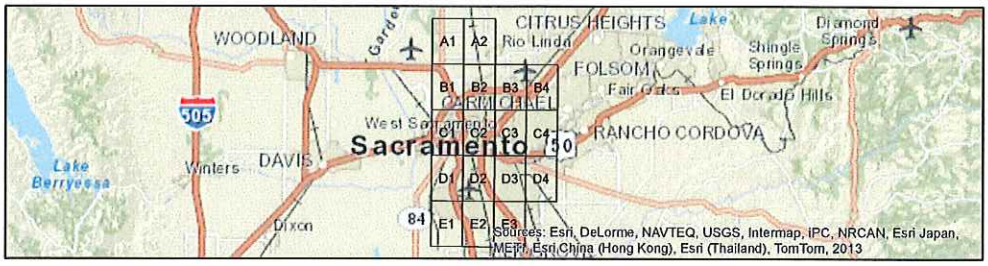

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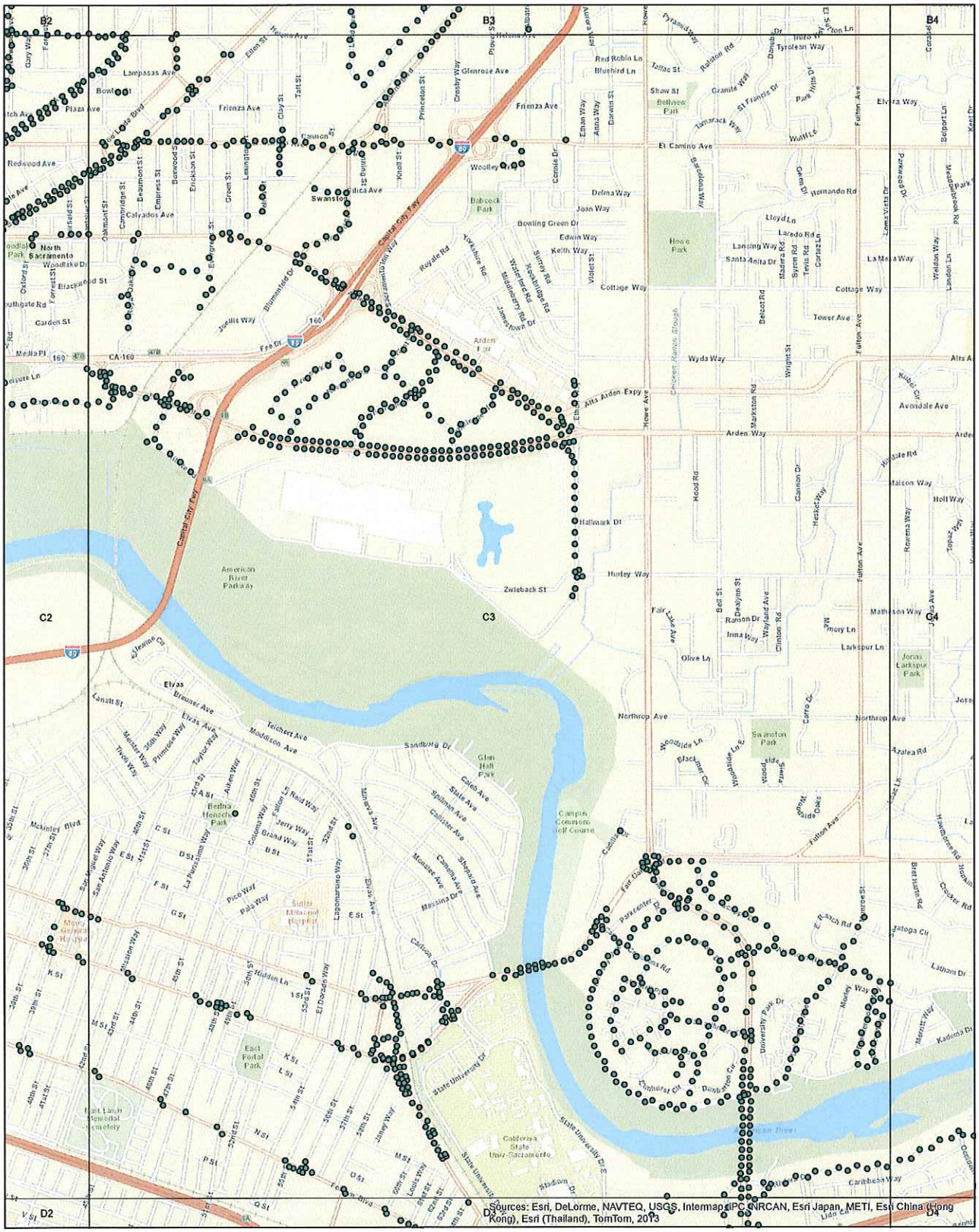

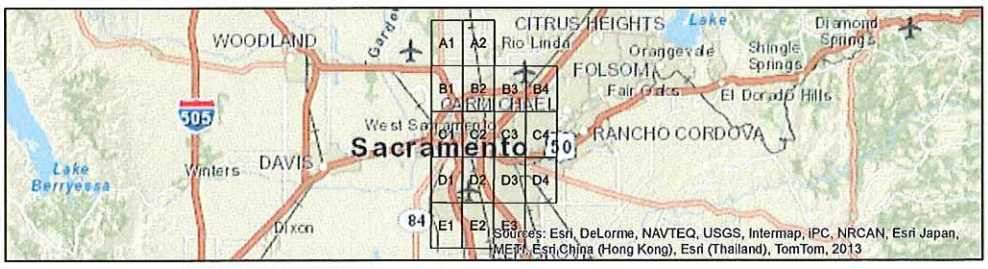

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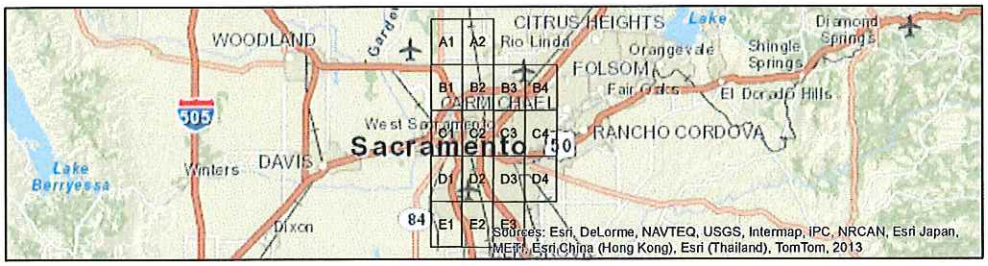

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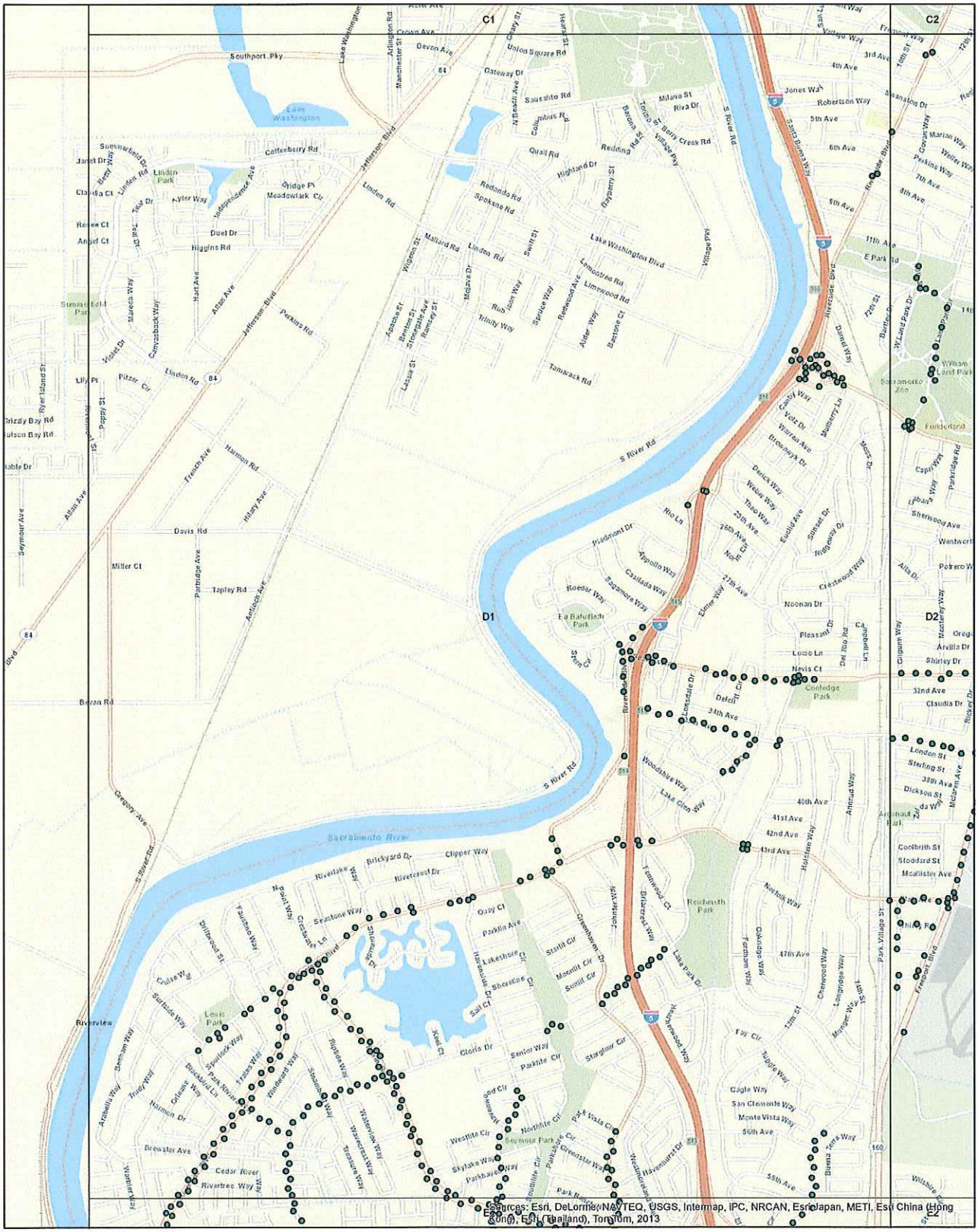

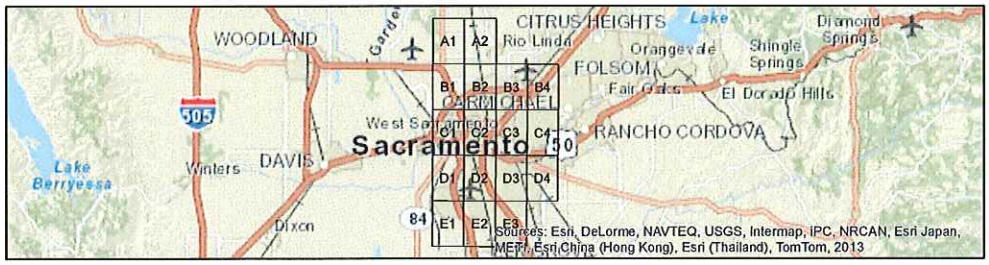

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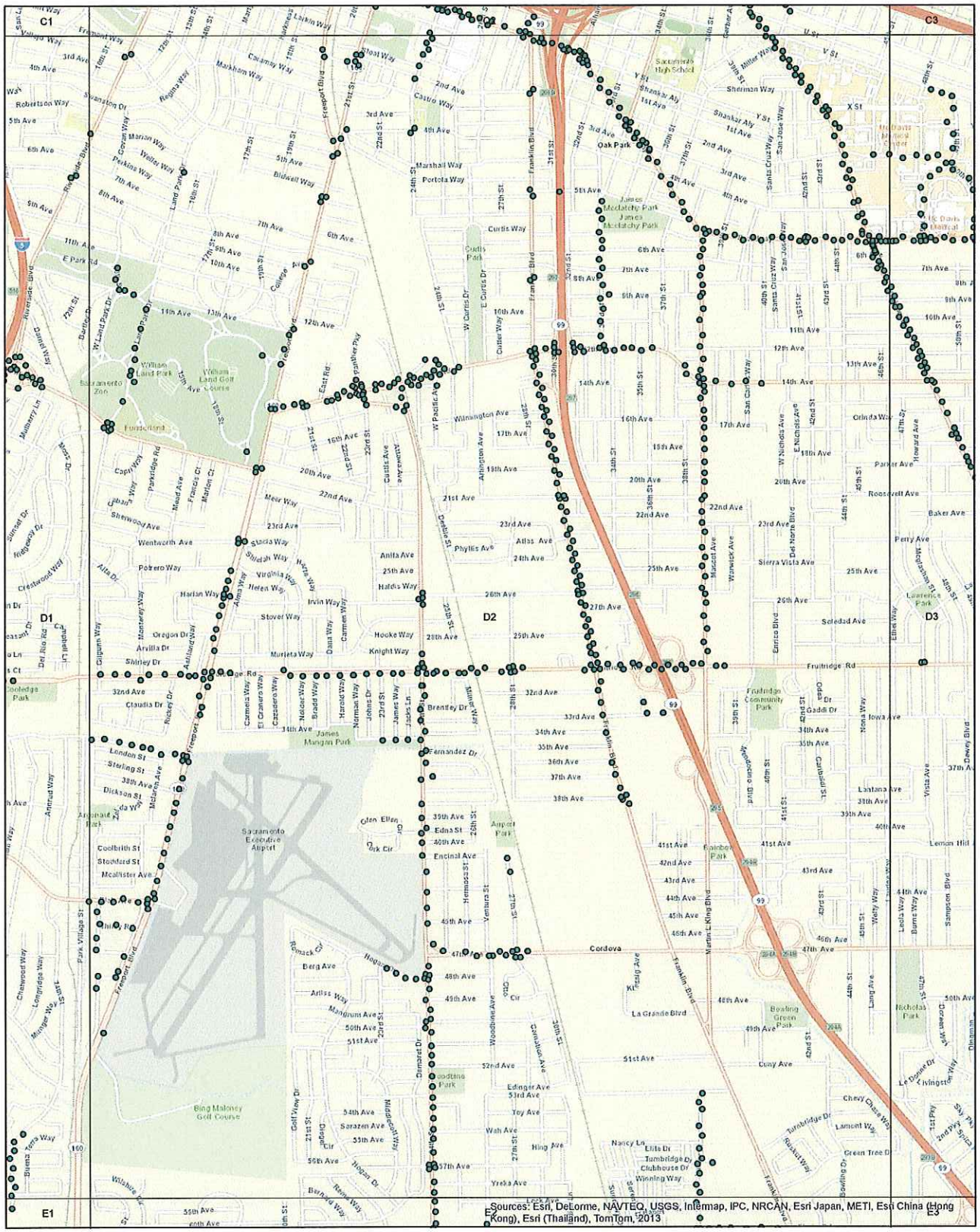

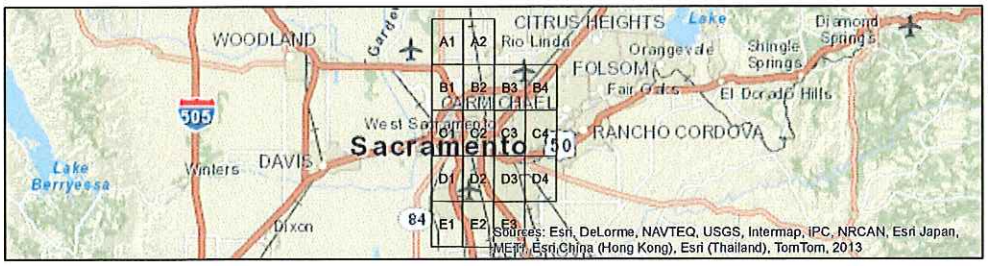

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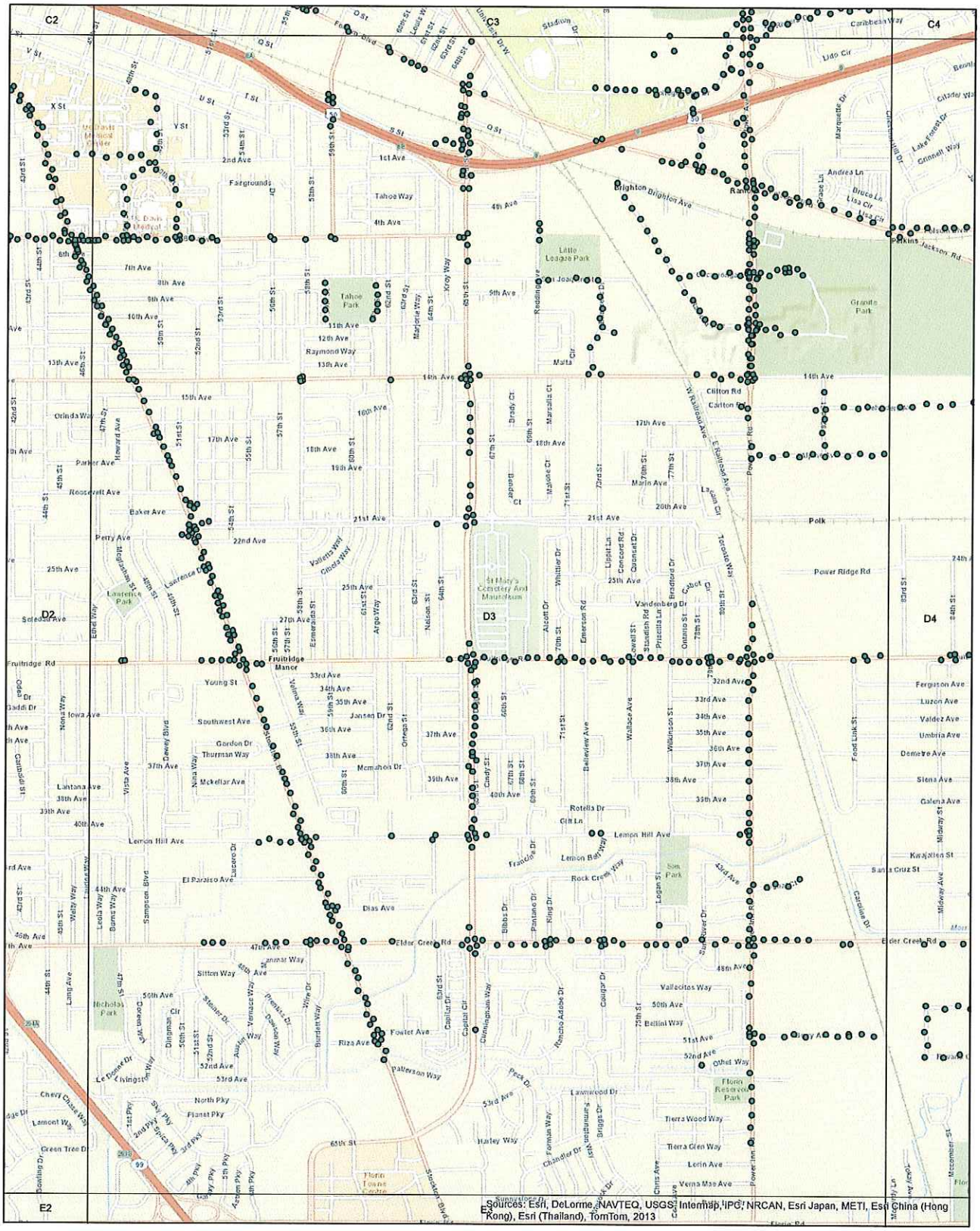

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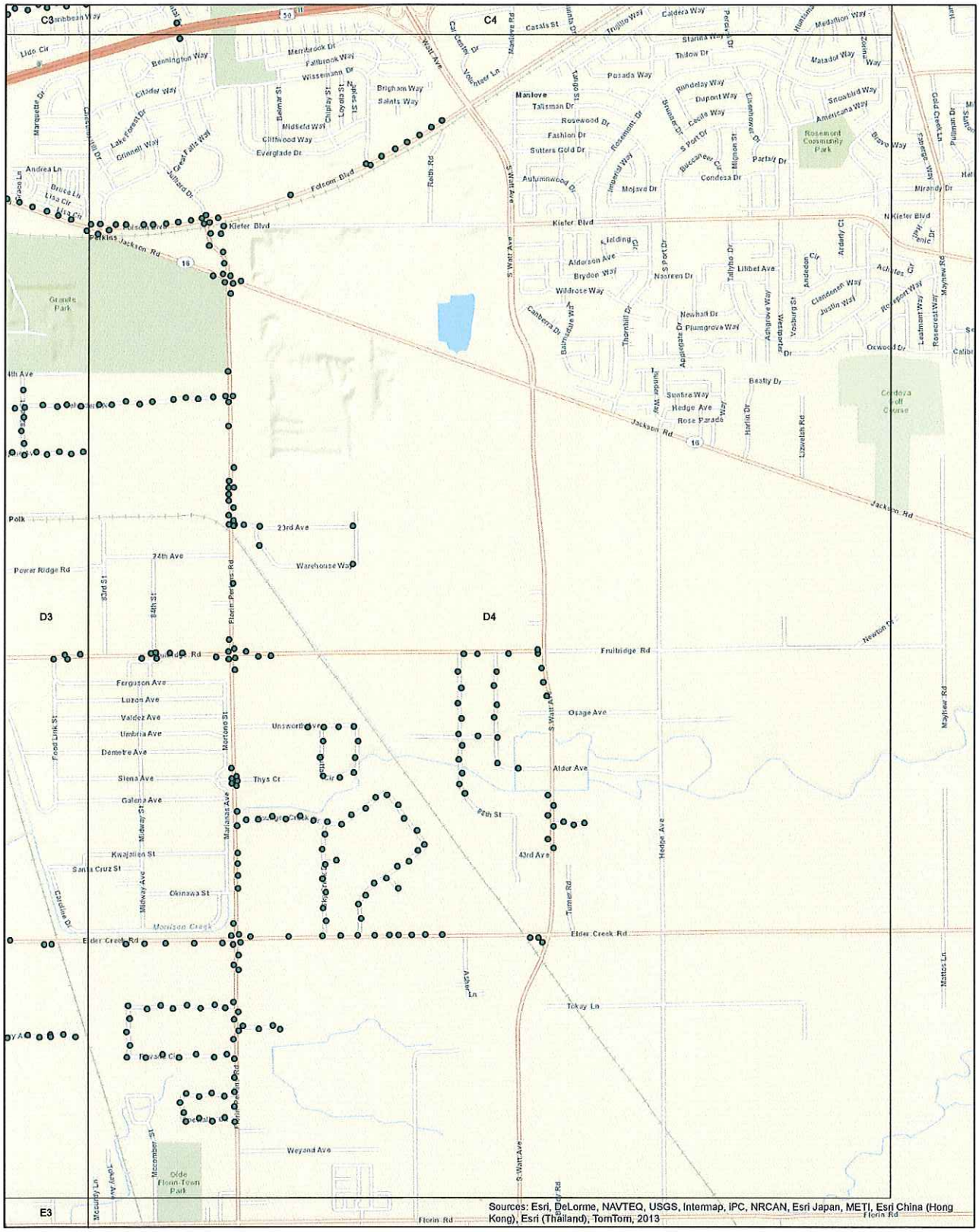

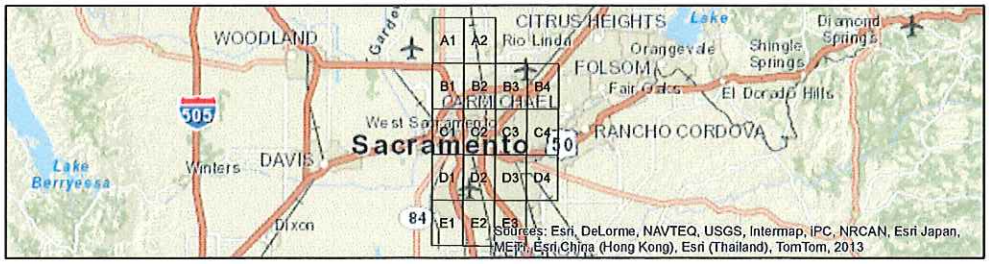

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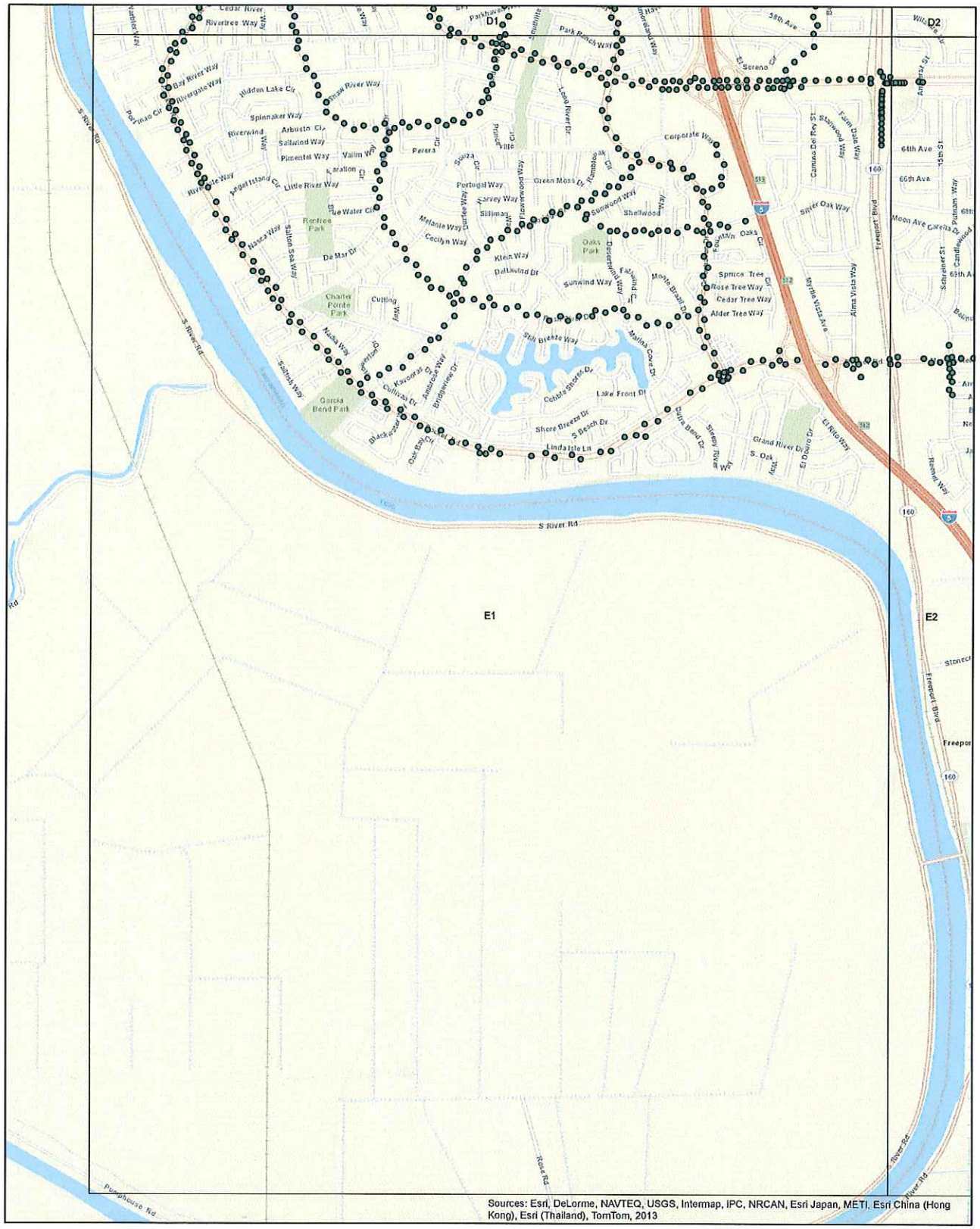

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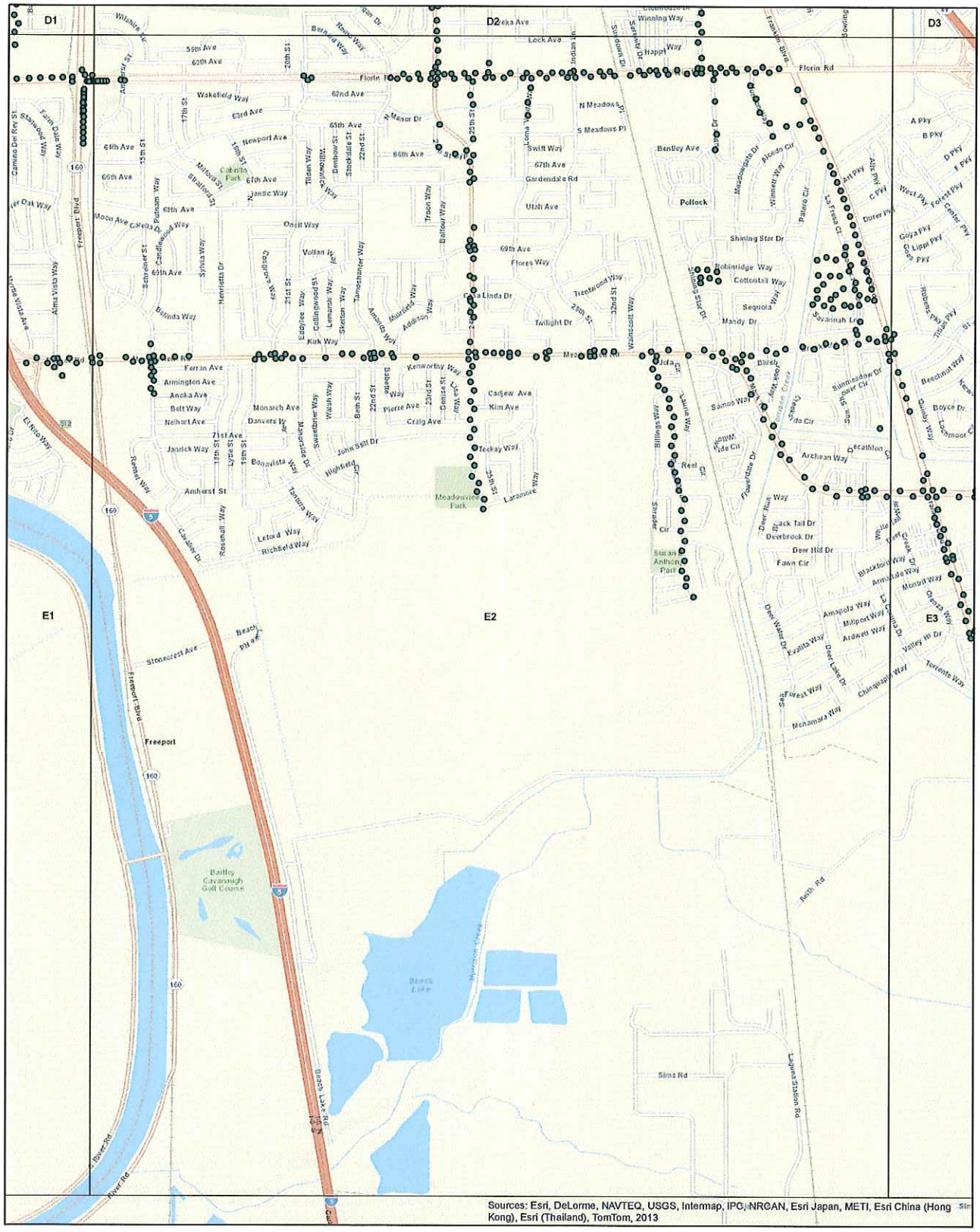

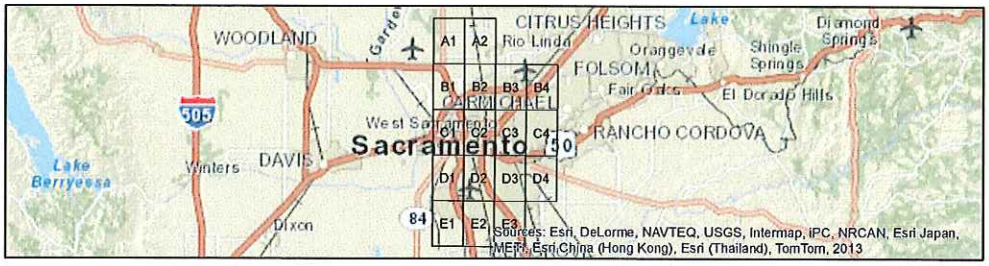

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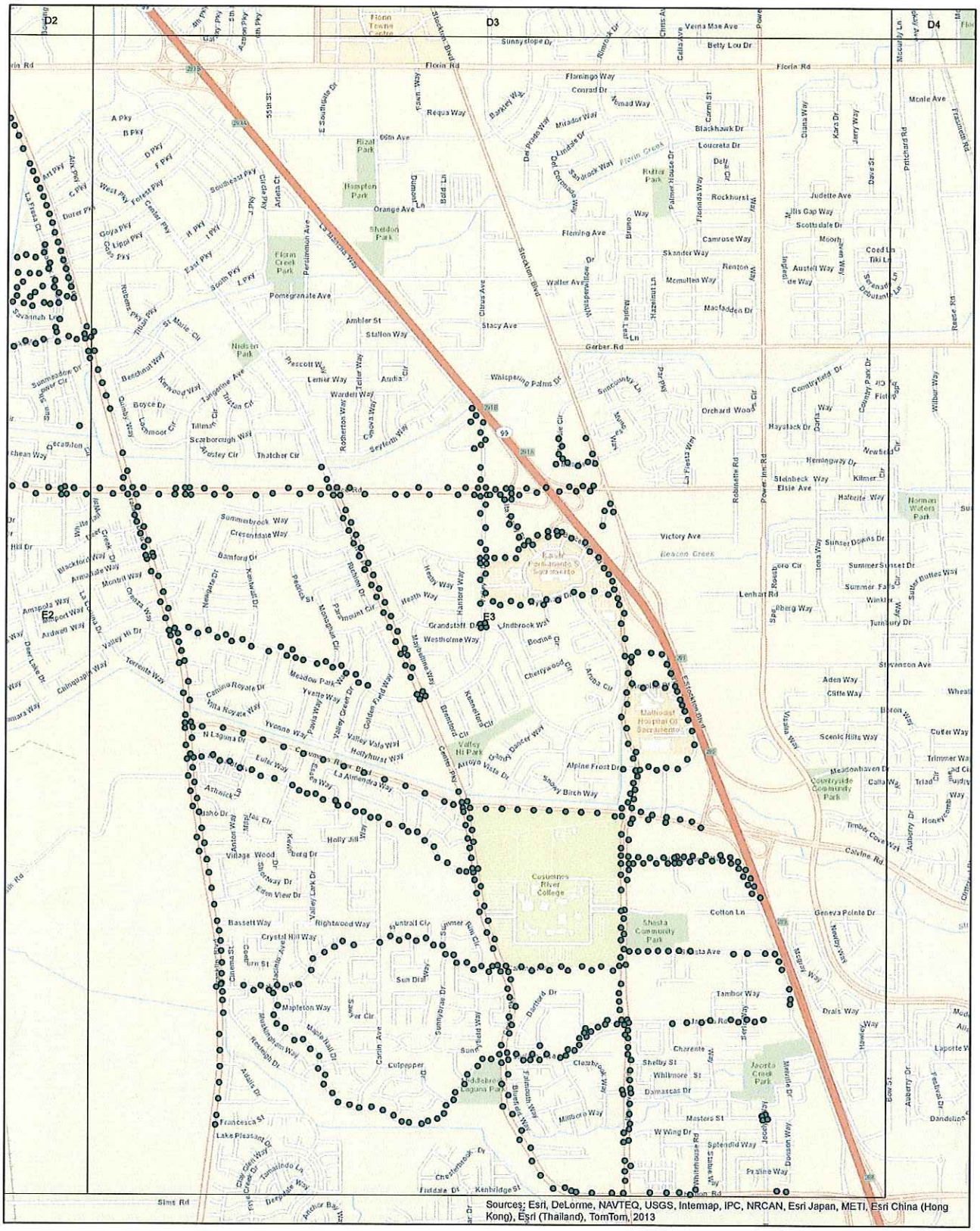

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