

PROFESSIONAL SERVICES AGREEMENT
[On-Call Traffic Engineering Services]

THIS PROFESSIONAL SERVICES AGREEMENT (the "Agreement") is made at Orange, California, on this ____ day of _____, 2025 (the "Effective Date") by and between the CITY OF ORANGE, a municipal corporation ("City"), and STANTEC CONSULTING SERVICES INC., a New York corporation ("Contractor"), who agree as follows:

1. Services. Subject to the terms and conditions set forth in this Agreement, Contractor shall provide general on-call traffic engineering services to the reasonable satisfaction of City the services set forth in Exhibit "A," which is attached hereto and incorporated herein by reference. As a material inducement to City to enter into this Agreement, Contractor represents and warrants that it has thoroughly investigated and considered the scope of services and fully understands the difficulties and restrictions in performing the work. The services which are the subject of this Agreement are not in the usual course of City's business and City relies on Contractor's representation that it is independently engaged in the business of providing such services and is experienced in performing the work. Contractor shall perform all services in a manner reasonably satisfactory to City and in a manner in conformance with the standards of quality normally observed by an entity providing such services to a municipal agency. All services provided shall conform to all federal, state and local laws, rules and regulations and to the best professional standards and practices. The terms and conditions set forth in this Agreement shall control over any terms and conditions in Exhibit "A" to the contrary.

Larry Tay, City Traffic Engineer ("City's Project Manager"), shall be the person to whom Contractor will report for the performance of services hereunder. It is understood that Contractor's performance hereunder shall be under the supervision of City's Project Manager (or his/her designee), that Contractor shall coordinate its services hereunder with City's Project Manager to the extent required by City's Project Manager, and that all performances required hereunder by Contractor shall be performed to the satisfaction of City's Project Manager and the City Manager.

2. Compensation and Fees.

a. Contractor's total compensation for all services performed under this Agreement, shall not exceed TWO HUNDRED FIFTY THOUSAND DOLLARS and 00/100 (\$250,000.00) without the prior written authorization of City.

b. The above compensation shall include all costs, including, but not limited to, all clerical, administrative, overhead, insurance, reproduction, telephone, travel, auto rental, subsistence and all related expenses.

3. Payment.

a. As scheduled services are completed, Contractor shall submit to City an invoice for the services completed, authorized expenses and authorized extra work actually performed or incurred.

b. All such invoices shall state the basis for the amount invoiced, including services completed, the number of hours spent and any extra work performed.

c. City will pay Contractor the amount invoiced within thirty (30) days of receipt of all deliverables.

d. Payment shall constitute payment in full for all services, authorized costs and authorized extra work covered by that invoice.

4. **Change Orders.** No payment for extra services caused by a change in the scope or complexity of work, or for any other reason, shall be made unless and until such extra services and a price therefor have been previously authorized in writing and approved by City as an amendment to this Agreement. City's Project Manager is authorized to approve a reduction in the services to be performed and compensation therefor. All amendments shall set forth the changes of work, extension of time, and/or adjustment of the compensation to be paid by City to Contractor and shall be signed by the City's Project Manager, City Manager or City Council, as applicable.

5. **Licenses.** Contractor represents that it and any subcontractors it may engage, possess any and all licenses which are required under state or federal law to perform the work contemplated by this Agreement and that Contractor and its subcontractors shall maintain all appropriate licenses, including a City of Orange business license, at its cost, during the performance of this Agreement.

6. **Independent Contractor.** At all times during the term of this Agreement, Contractor shall be an independent contractor and not an employee of City. City shall have the right to control Contractor only insofar as the result of Contractor's services rendered pursuant to this Agreement. City shall not have the right to control the means by which Contractor accomplishes services rendered pursuant to this Agreement. Contractor shall, at its sole cost and expense, furnish all facilities, materials and equipment which may be required for furnishing services pursuant to this Agreement. Contractor shall be solely responsible for, and shall indemnify, defend and save City harmless from all matters relating to the payment of its subcontractors, agents and employees, including compliance with social security withholding and all other wages, salaries, benefits, taxes, exactions, and regulations of any nature whatsoever. Contractor acknowledges that it and any subcontractors, agents or employees employed by Contractor shall not, under any circumstances, be considered employees of City, and that they shall not be entitled to any of the benefits or rights afforded employees of City, including, but not limited to, sick leave, vacation leave, holiday pay, Public Employees Retirement System benefits, or health, life, dental, long-term disability or workers' compensation insurance benefits.

7. **Contractor Not Agent.** Except as City may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, to bind City to any obligation whatsoever.

8. **Designated Persons.** Only those qualified persons authorized by City's Project Manager, or as designated in Exhibit "A," shall perform work provided for under this Agreement. It is understood by the parties that clerical and other nonprofessional work may be performed by persons other than those designated.

9. **Assignment or Subcontracting.** No assignment or subcontracting by Contractor of any part of this Agreement or of funds to be received under this Agreement shall be of any force or effect unless the assignment has the prior written approval of City. City may terminate this Agreement rather than accept any proposed assignment or subcontracting. Such assignment or subcontracting may be approved by the City Manager or his/her designee.

10. **Time of Completion.** Except as otherwise specified in Exhibit "A," Contractor shall commence the work provided for in this Agreement within five (5) days of the Effective Date of this Agreement and diligently prosecute completion of the work in accordance with the time period set forth in Exhibit "A" hereto or as otherwise agreed to by and between the representatives of the parties.

11. **Time Is of the Essence.** Time is of the essence in this Agreement. Contractor shall do all things necessary and incidental to the prosecution of Contractor's work.

12. **Reserved.**

13. **Delays and Extensions of Time.** Contractor's sole remedy for delays outside its control, other than those delays caused by City, shall be an extension of time. No matter what the cause of the delay, Contractor must document any delay and request an extension of time in writing at the time of the delay to the satisfaction of City. Any extensions granted shall be limited to the length of the delay outside Contractor's control. If Contractor believes that delays caused by City will cause it to incur additional costs, it must specify, in writing, why the delay has caused additional costs to be incurred and the exact amount of such cost at the time the delay occurs. No additional costs can be paid that exceed the not to exceed amount stated in Section 2.a, above, absent a written amendment to this Agreement.

14. **Products of Contractor.** The documents, studies, evaluations, assessments, reports, plans, citations, materials, manuals, technical data, logs, files, designs and other products produced or provided by Contractor for this Agreement shall become the property of City upon receipt. Contractor shall deliver all such products to City prior to payment for same. City may use, reuse or otherwise utilize such products without restriction.

15. **Equal Employment Opportunity.** During the performance of this Agreement, Contractor agrees as follows:

a. Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, mental or physical disability, or any other basis prohibited by applicable law. Contractor shall ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, national origin, mental or physical disability, or any other basis prohibited by applicable law.

Such actions 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. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, a notice setting forth provisions of this non-discrimination clause.

b. Contractor shall, in all solicitations and advertisements for employees placed by, or on behalf of Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, mental or physical disability, or any other basis prohibited by applicable law.

c. Contractor shall cause the foregoing paragraphs (a) and (b) to be inserted in all subcontracts for any work covered by this Agreement, provided that the foregoing provisions shall not apply to subcontracts for standard commercial supplies or raw materials.

16. Conflicts of Interest. Contractor agrees that it shall not make, participate in the making, or in any way attempt to use its position as a consultant to influence any decision of City in which Contractor knows or has reason to know that Contractor, its officers, partners, or employees have a financial interest as defined in Section 87103 of the Government Code. Contractor further agrees that it shall not be eligible to work as the design/build firm for the project that is the subject of this Agreement.

17. Indemnity.

a. To the fullest extent permitted by law, Contractor agrees to indemnify, defend and hold City, its City Council and each member thereof, and the officers, officials, agents and employees of City (collectively the "Indemnitees") entirely harmless from all liability arising out of:

(1) Any and all claims under workers' compensation acts and other employee benefit acts with respect to Contractor's employees or Contractor's subcontractor's employees arising out of Contractor's work under this Agreement, including any and all claims under any law pertaining to Contractor or its employees' status as an independent contractor and any and all claims under Labor Code section 1720 related to the payment of prevailing wages for public works projects; and

(2) Any claim, loss, injury to or death of persons or damage to property caused by any act, neglect, default, or omission of Contractor, or person, firm or corporation employed by Contractor, either directly or by independent contract, including all damages due to loss or theft sustained by any person, firm or corporation including the Indemnitees, or any of them, arising out of, or in any way connected with the work or services which are the subject of this Agreement, including injury or damage either on or off City's property; but not for any loss, injury, death or damage caused by the active negligence or willful misconduct of City. Contractor, at its own expense, cost and risk, shall indemnify any and all claims, actions, suits or other proceedings that may be brought or instituted against the Indemnitees on any such claim or liability covered by this subparagraph, and shall pay or satisfy any judgment that may be rendered against

the Indemnitees, or any of them, in any action, suit or other proceedings as a result of coverage under this subparagraph.

b. To the fullest extent permitted by law, and as limited by California Civil Code 2782.8, Contractor agrees to indemnify and hold Indemnitees harmless from all liability arising out of any claim, loss, injury to or death of persons or damage to property to the extent caused by its negligent professional act or omission in the performance of professional services pursuant to this Agreement.

c. Except for the Indemnitees, the indemnifications provided in this Agreement shall not be construed to extend any third party indemnification rights of any kind to any person or entity which is not a signatory to this Agreement.

d. The indemnities set forth in this section shall survive any closing, rescission, or termination of this Agreement, and shall continue to be binding and in full force and effect in perpetuity with respect to Contractor and its successors.

18. Insurance.

a. Contractor shall carry workers' compensation insurance as required by law for the protection of its employees during the progress of the work. Contractor understands that it is an independent contractor and not entitled to any workers' compensation benefits under any City program.

b. Contractor shall maintain during the life of this Agreement the following minimum amount of comprehensive general liability insurance or commercial general liability insurance: the greater of (1) One Million Dollars (\$1,000,000) per occurrence; or (2) all the insurance coverage and/or limits carried by or available to Contractor. Said insurance shall cover bodily injury, death and property damage and be written on an occurrence basis.

c. Contractor shall maintain during the life of this Agreement, the following minimum amount of automotive liability insurance: the greater of (1) a combined single limit of One Million Dollars (\$1,000,000); or (2) all the insurance coverage and/or limits carried by or available to Contractor. Said insurance shall cover bodily injury, death and property damage for all owned, non-owned and hired vehicles and be written on an occurrence basis.

d. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits which are applicable to a given loss shall be available to City. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of Contractor under this Agreement.

e. Each policy of general liability and automotive liability shall provide that City, its officers, officials, agents, and employees are declared to be additional insureds under the terms of the policy, but only with respect to the work performed by Contractor under this Agreement. A policy endorsement to that effect shall be provided to City along with the certificate of insurance. In lieu of an endorsement, City will accept a copy of the policy(ies) which evidences

that City is an additional insured as a contracting party. The minimum coverage required by Subsection 18.b and c, above, shall apply to City as an additional insured. Any umbrella liability insurance that is provided as part of the general or automobile liability minimums set forth herein shall be maintained for the duration of the Agreement.

f. Contractor shall maintain during the life of this Agreement professional liability insurance covering errors and omissions arising out of the performance of this Agreement with a minimum limit of One Million Dollars (\$1,000,000) per claim. Contractor agrees to keep such policy in force and effect for at least five (5) years from the date of completion of this Agreement.

g. The insurance policies maintained by Contractor shall be primary insurance and no insurance held or owned by City shall be called upon to cover any loss under the policy. Contractor will determine its own needs in procurement of insurance to cover liabilities other than as stated above.

h. Before Contractor performs any work or prepares or delivers any materials, Contractor shall furnish certificates of insurance and endorsements, as required by City, evidencing the aforementioned minimum insurance coverages on forms acceptable to City, which shall provide that the insurance in force will not be canceled or allowed to lapse without at least ten (10) days' prior written notice to City.

i. Except for professional liability insurance coverage that may be required by this Agreement, all insurance maintained by Contractor shall be issued by companies admitted to conduct the pertinent line of insurance business in California and having a rating of Grade A or better and Class VII or better by the latest edition of Best Key Rating Guide. In the case of professional liability insurance coverage, such coverage shall be issued by companies either licensed or admitted to conduct business in California so long as such insurer possesses the aforementioned Best rating.

j Contractor shall immediately notify City if any required insurance lapses or is otherwise modified and cease performance of this Agreement unless otherwise directed by City. In such a case, City may procure insurance or self-insure the risk and charge Contractor for such costs and any and all damages resulting therefrom, by way of set-off from any sums owed Contractor.

k. Contractor agrees that in the event of loss due to any of the perils for which it has agreed to provide insurance, Contractor shall look solely to its insurance for recovery. Contractor hereby grants to City, on behalf of any insurer providing insurance to either Contractor or City with respect to the services of Contractor herein, a waiver of any right to subrogation which any such insurer may acquire against City by virtue of the payment of any loss under such insurance.

l. Contractor shall include all subcontractors, if any, as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor to City for

review and approval. All coverages for subcontractors shall be subject to all of the requirements stated herein.

19. Termination. City may for any reason terminate this Agreement by giving Contractor not less than five (5) days' written notice of intent to terminate. Upon receipt of such notice, Contractor shall immediately cease work, unless the notice from City provides otherwise. Upon the termination of this Agreement, City shall pay Contractor for services satisfactorily provided and all allowable reimbursements incurred to the date of termination in compliance with this Agreement, unless termination by City shall be for cause, in which event City may withhold any disputed compensation. City shall not be liable for any claim of lost profits.

20. Maintenance and Inspection of Records. In accordance with generally accepted accounting principles, Contractor and its subcontractors shall maintain reasonably full and complete books, documents, papers, accounting records, and other information (collectively, the "records") pertaining to the costs of and completion of services performed under this Agreement. City and its authorized representatives shall have access to and the right to audit and reproduce any of Contractor's records regarding the services provided under this Agreement. Contractor shall maintain all such records for a period of at least three (3) years after termination or completion of this Agreement. Contractor agrees to make available all such records for inspection or audit at its offices during normal business hours and upon three (3) days' notice from City, and copies thereof shall be furnished if requested.

21. Compliance with all Laws/Immigration Laws.

a. Contractor shall be knowledgeable of and comply with all local, state and federal laws which may apply to the performance of this Agreement.

b. If the work provided for in this Agreement constitutes a "public works," as that term is defined in Section 1720 of the California Labor Code, for which prevailing wages must be paid, to the extent Contractor's employees will perform any work that falls within any of the classifications for which the Department of Labor Relations of the State of California promulgates prevailing wage determinations, Contractor hereby agrees that it, and any subcontractor under it, shall pay not less than the specified prevailing rates of wages to all such workers. The general prevailing wage determinations for crafts can be located on the website of the Department of Industrial Relations (www.dir.ca.gov/DLSR). Additionally, to perform work under this Contract, Contractor must meet all State registration requirements and criteria, including project compliance monitoring.

c. Contractor represents and warrants that it:

(1) Has complied and shall at all times during the term of this Agreement comply, in all respects, with all immigration laws, regulations, statutes, rules, codes, and orders, including, without limitation, the Immigration Reform and Control Act of 1986 (IRCA); and

(2) Has not and will not knowingly employ any individual to perform services under this Agreement who is ineligible to work in the United States or under the terms of this Agreement; and

(3) Has properly maintained, and shall at all times during the term of this Agreement properly maintain, all related employment documentation records including, without limitation, the completion and maintenance of the Form I-9 for each of Contractor's employees; and

(4) Has responded, and shall at all times during the term of this Agreement respond, in a timely fashion to any government inspection requests relating to immigration law compliance and/or Form I-9 compliance and/or worksite enforcement by the Department of Homeland Security, the Department of Labor, or the Social Security Administration.

d. Contractor shall require all subcontractors or subconsultants to make the same representations and warranties as set forth in Subsection 21.c.

e. Contractor shall, upon request of City, provide a list of all employees working under this Agreement and shall provide, to the reasonable satisfaction of City, verification that all such employees are eligible to work in the United States. All costs associated with such verification shall be borne by Contractor. Once such request has been made, Contractor may not change employees working under this Agreement without written notice to City, accompanied by the verification required herein for such employees.

f. Contractor shall require all subcontractors or sub-consultants to make the same verification as set forth in Subsection 21.e.

g. If Contractor or subcontractor knowingly employs an employee providing work under this Agreement who is not authorized to work in the United States, and/or fails to follow federal laws to determine the status of such employee, that shall constitute a material breach of this Agreement and may be cause for immediate termination of this Agreement by City.

h. Contractor agrees to indemnify and hold City, its officers, officials, agents and employees harmless for, of and from any loss, including but not limited to fines, penalties and corrective measures City may sustain by reason of Contractor's failure to comply with said laws, rules and regulations in connection with the performance of this Agreement.

22. Governing Law and Venue. This Agreement shall be construed in accordance with and governed by the laws of the State of California and Contractor agrees to submit to the jurisdiction of California courts. Venue for any dispute arising under this Agreement shall be in Orange County, California.

23. Integration. This Agreement constitutes the entire agreement of the parties. No other agreement, oral or written, pertaining to the work to be performed under this Agreement shall be of any force or effect unless it is in writing and signed by both parties. Any work performed

which is inconsistent with or in violation of the provisions of this Agreement shall not be compensated.

24. Notice. Except as otherwise provided herein, all notices required under this Agreement shall be in writing and delivered personally, by e-mail, or by first class U.S. mail, postage prepaid, to each party at the address listed below. Either party may change the notice address by notifying the other party in writing. Notices shall be deemed received upon receipt of same or within three (3) days of deposit in the U.S. Mail, whichever is earlier. Notices sent by e-mail shall be deemed received on the date of the e-mail transmission.

“CONTRACTOR”

Stantec Consulting Services Inc.
38 Technology Drive, Suite 200
Irvine, CA 92618
Attn.: Keith Rutherford, Principal

Telephone: 949-923-6952
E-Mail: keith.rutherford@stantec.com

“CITY”

City of Orange
300 E. Chapman Avenue
Orange, CA 92866-1591
Attn.: Larry Tay, City Traffic Engineer

Telephone: 714-744-5525
E-Mail: ltay@cityoforange.org

25. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Signatures transmitted electronically shall have the same effect as original signatures.

[Remainder of page intentionally left blank; signatures on next page]

IN WITNESS of this Agreement, the parties have entered into this Agreement as of the year and day first above written.

“CONTRACTOR”

STANTEC CONSULTING SERVICES INC.,
a New York corporation

*By: _____
Printed Name: David Elwell
Title: Vice President

*By: _____
Printed Name: Jeffrey Stone
Title: Asst. Secretary

“CITY”

CITY OF ORANGE, a municipal corporation

By: _____
Daniel R. Slater, Mayor

ATTEST:

Pamela Coleman, City Clerk

APPROVED AS TO FORM:

Nathalie Adourian, City Attorney

- *NOTE:**
- City requires the following signature(s) on behalf of the Contractor:
(1) the Chairman of the Board, the President or a Vice-President, AND (2) the Secretary, the Chief Financial Officer, the Treasurer, an Assistant Secretary or an Assistant Treasurer. If only one corporate officer exists or one corporate officer holds more than one corporate office, please so indicate. OR
 - The corporate officer named in a corporate resolution as authorized to enter into this Agreement. A copy of the corporate resolution, certified by the Secretary close in time to the execution of the Agreement, must be provided to City.

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IN WITNESS of this Agreement, the parties have entered into this Agreement as of the year and day first above written.

"CONTRACTOR"

STANTEC CONSULTING SERVICES INC.,
a New York corporation

Elwell, Dave

Digitally signed by Elwell, Dave
DN: CN="Elwell, Dave", OU=Internal,
OU=Users, OU=stntec, DC=corp,
DC=ads
Reason: I am approving this document
Date: 2025.11.03 14:59:50-08'00'

*By: _____

Printed Name: David Elwell

Title: Vice President

Stone, Jeff

Digitally signed by Stone, Jeff
Date: 2025.11.03 16:17:30
-05'00'

*By: _____

Printed Name: Jeffrey Stone

Title: Asst. Secretary

"CITY"

CITY OF ORANGE, a municipal corporation

By: _____

Daniel R. Slater, Mayor

ATTEST:

Pamela Coleman, City Clerk

APPROVED AS TO FORM:

Nathalie Adourian, City Attorney

***NOTE:**

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- The corporate officer named in a corporate resolution as authorized to enter into this Agreement. A copy of the corporate resolution, certified by the Secretary close in time to the execution of the Agreement, must be provided to City.

✓

EXHIBIT “A”

SCOPE OF SERVICES

[Beneath this sheet.]

SECTION III

SCOPE OF WORK

RFP NO. 24-25.24

SECTION III: SCOPE OF WORK

All work shall be conducted on an as needed basis when requested in writing by the City Traffic Engineer or designated representative and according to the timeframe specified by the City. Work performed by the Consultant that has not be specifically identified and authorized by the City, will not be compensated.

The scope of work includes, but is not limited to:

- Traffic studies for capital projects
- Traffic and/or parking study review for private developments
- Traffic signal design
- Traffic control plan preparations
- Plan check for capital/development projects and traffic control plans
- Street light design and plan check
- Signing and striping plan preparation and plan check
- Traffic signal and street lighting construction inspection
- Construction management and construction engineering
- Technical support for funding and grant application
- Grant funding oversight
- Intelligent transportation systems (ITS) design
- Traffic signal timing and coordination studies
- Traffic counts and data collection
- Neighborhood traffic calming studies, warrant studies, and traffic investigations
- Special studies, civil design, and on-site support services may be requested
- General municipal traffic engineering services

The City of Orange manages 160 traffic signals, over 8,000 streetlights, over 20 miles of fiber optic network, the Traffic Management Center (TMC), radar feedback signs, pedestrian crossing and overhead flashers, and other devices to facilitate the safety of the public and efficiency of traffic. The City of Orange expects consulting firms to have thorough knowledge in traffic signal, ITS systems, street light design to perform required services. Firms are also expected to understand federal/state/local funding and policies, as well as Orange County Transportation Authority (OCTA) Comprehensive Transportation Funding Program (CTFP) requirements. The ideal firm(s) will have expertise in the areas above or may specialize in one or more subareas and will be capable to provide technical services associated with the general traffic engineering needs of the City of Orange.

All design work and improvement plan check services shall be performed by or under the responsible charge of a California License Professional Engineer (Civil, Traffic, and/or California License Land Surveyor as applicable) eligible to prepare and sign such plans. Successful firms will be required to enter into the City's standard professional services agreement (attached) and obtain an Orange business license. Any changes requested to the City's standard agreement must be noted in the response to the RFP for the City's consideration.

Each specific assignment under an on-call engineering services contract will be compensated on either lump sum or time-and-materials basis. The method of compensation will be specified in writing by the City at the time the assignment is given.

Generally, response times related to plan checks for the initial review shall be completed within **ten (10) working days**, unless otherwise directed by the City. Each subsequent plan check shall be completed within 5 working days unless otherwise directed by the City.

The scope of work will vary by project, and will be further defined in a project specific request by the City of Orange, but may generally include the following:

- **Design Plans** – Develop or assist with development of final design plans associated with traffic signals and street light systems. These plans include, but are not limited to: traffic signal plans, Intelligent Transportation Systems plans, traffic signal interconnect plans, and street light plans.
- **Program Management / Construction Management / Construction Inspection** – Services related to the City's Capital Improvement Program, which will typically include traffic signal and street light improvements, but may also include ancillary roadway rehabilitation, roadway widening, ADA access and handicap ramps, parkways, drainage and drainage structures, storm drain utilities, signage and striping, parks, and other miscellaneous facilities. A thorough understanding of the NPDES regulations and grant regulations, including Federally funded program compliance is required. Project manager and inspector must be able to coordinate with outside agencies such as adjacent cities, Caltrans, and various utility companies.
- **Transportation Analysis** – Specialized traffic studies to assess proposed projects within a short time frame. Typical studies would include travel demand or traffic forecasting of proposed roadways, street widening or intersection improvement projects. Studies will analyze diversion of traffic due to substantial long term construction projects. Analysis will incorporate pedestrian and bicycles. Additional studies could be needed to provide technical support for grant and funding applications.
- **Traffic Signal Corridor Coordination Studies** – Conduct studies that analyze the performance of traffic signal timing on street corridors. These studies shall include before and after analysis to quantify the level of improvement to the expected as a result of the project.
- **Simulation Modeling** – Provide computer simulation of corridors or road networks as needed utilizing microsimulation software. Training may also be included with these projects.
- **Traffic Counts** – Perform data collection as needed within short time frames including ADT's, 12-hour counts, intersection turning movement counts, occupancy rates, speed/delay runs, pedestrian and bike counts, parking turnover, etc.
- **Statewide Planning Efforts** – Specialized studies and analysis in support of various regional and statewide initiatives involving traffic signal improvements, timing, and coordination.
- **Research and Outreach** – Assist staff in producing reports and making presentations on transportation related topics.
- **Neighborhood Traffic Calming** – Assist staff in processing requests for traffic calming measures. This includes but is not limited to street and neighborhood evaluation, data collection, recommendations, design, and coordination/communication with residents.
- **Review for Private Developments** – Assist staff in reviewing plans and reports for private development projects. This includes but is not limited to: traffic signal plans, striping plans, street light plans, and various traffic studies. Coordination with project owners or design teams on behalf of the City may be requested.

Deliverables

The specific scope of work for each task/project will be provided in a written transmittal from a City of Orange representative along with, in most cases, a follow-up phone call and, if necessary, a meeting to discuss the specific needs of the assignment. Within five business days of receipt of transmittal, the Consultant will be expected to provide the City with a proposed level of support along with a NOT TO EXCEED cost. A fully-executed amendment to the on-call contract may be required along with an authorization to proceed prior to commencement of work.

Consultant is expected to have a close working relationship with City staff and remain very accessible throughout the contract duration. The Consultant shall act as an extension of City staff.

A member of the consulting firm will be required to attend meetings with other jurisdictions, City departments, or public outreach events if an individual project requires extra coordination.

H. Work Plan

The on-call traffic engineering services we are prepared to provide to the City range from preparation of detailed design plans for traffic signals, enhanced warning systems, signing and striping plans, traffic control plans and related systems, providing specialized skills in areas of traffic studies and analyses, transportation planning, grant funding and applications, and outreach. Our step-by-step process for on-call assignments is depicted in the On-Call Process work flow below.

Approach

Our approach to a traffic on-call assignments will be to satisfy the City's objectives in a timely and cost-effective manner through the application of excellent project management and up-to-date technical skills. This approach is based on our experience and successful completion of previous HSIP Cycle 5 and 6 traffic signal improvement projects and the recent Katella Avenue and Struck Avenue Intersection Improvement Project for the City. Because of this previous experience, we are very familiar with City design standards and procedures.

We will acknowledge receipt of task orders from the City within 24 hours. In response to a specific on-call assignment, we will assemble the skills required and prepare a detailed work plan, schedule, and a not-to-exceed cost estimate for review and approval by the City within five business days. We will meet with the

City to review and refine the scope of services and schedule, and to negotiate the corresponding contract amount, if necessary. Once the City agrees with the project plan and cost, and the notice to proceed is issued, our team will begin the assignment and manage the project through to satisfactory completion.

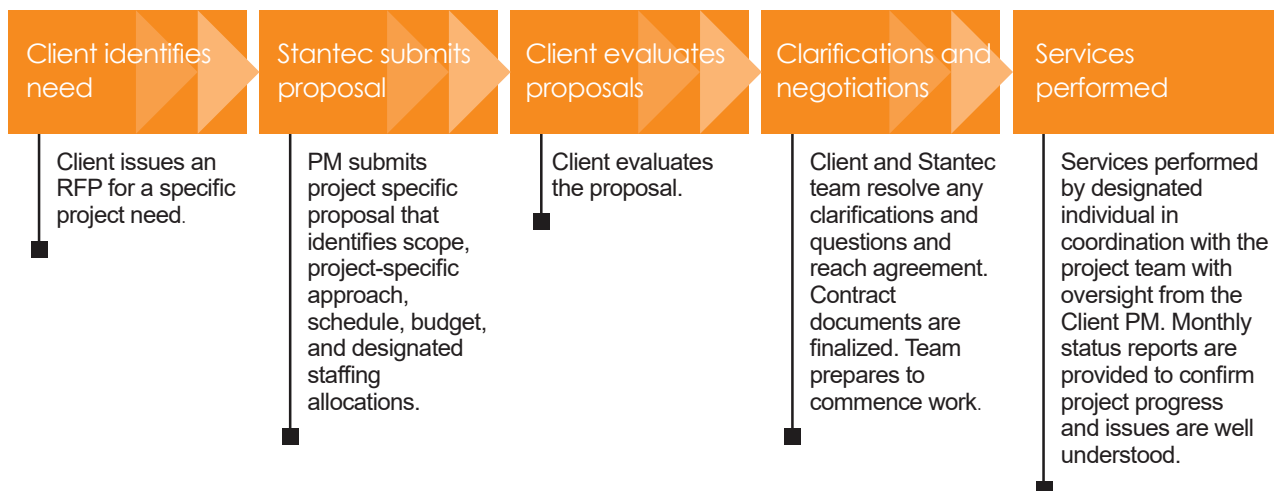
The first task we will perform at the beginning of an assignment is to meet with City traffic staff to receive plan checks or to conduct research and review existing data and information at the City for new design projects. We will discuss with City staff any special concerns or conditions associated with each assignment. Our work plan methodology to complete individual tasks as needed by the City will include but not be limited to the following tasks.

Task 1: Traffic Signal Design Plans

Subtask 1.1 – Background and Utility Research/ Coordination and Field Review

Our team will research and obtain from the City, utility companies, and/or other appropriate agencies, the available as-built record street improvements, utility plans, and right-of-way maps for the limits of each project area. We will identify utilities within the intersection limits as shown on the available record plans of existing roadway improvements and utility facilities. Based upon review and verification of the

On-Call Process



as-built plans and our site visit to thoroughly document existing improvements (including digital photographs) and identify potential conflicts, we will identify areas free of potential conflicts where the conduits, foundations, and other substructures associated with proposed signal improvements can be located. Potholing of signal pole foundation locations will not be included in scopes of work unless requested by the City.

Design plans will be sent to identified utility owners/agencies to confirm depiction of their existing facilities as shown on the plans and to identify locations of any future planned facilities. A record of communication with each utility agency will be documented in a utility log and provided to the City upon completion of design. The utility log will contain all requests for information, transmittals of design plans to agencies for review, and notices of conflict and need for relocation as necessary.

Subtask 1.2 – Design Survey and Base Map Preparation

If required, based on the type of improvements and/or availability of suitable records and as-built drawings, we will provide topographic design surveys for projects. Control data will be assembled and established for the project area. Topographic base map limits at intersections will extend an appropriate distance on each leg to cover the limits of advance vehicle detection zones. Surveys will include 25-foot (max.) cross section intervals along the first 100 feet (min.) in each direction along major streets, and 25-foot (max.) intervals along 50 feet (min.) of minor streets. Cross sections will include, but not be limited to, right-of-way, back/ front of walk, top of curb, flow line, gutter lip, lane lines, centerline, and any visible surface utilities, top and bottom of access ramps and driveway aprons, landscaping, trees, power/utility poles (including height), street lights, and signage.

The survey data will be downloaded and compiled to create topographic base maps of the project areas, including right-of-way, centerline, surface features, and culture. Any fees required to obtain an agency encroachment permit for design surveys will be considered a reimbursable expense.

Subtask 1.3 – Traffic Signal, ITS, and Interconnect Design PS&E

We will prepare traffic signal plans using AutoCAD (version per City requirements), at 1" = 20' scale. Designs will follow applicable California Manual on Uniform Traffic Control Devices (CA MUTCD) and

City of Orange standards. Prior to preparation of plans, we will meet with the City to confirm the project objectives and to identify any special design requirements. ITS and interconnect plans will be prepared in AutoCAD at 1" = 20' or 1" = 40' scale. Stand-alone improvement plan sets will also include a title sheet.

Supporting design information such as conduit fill calculations, electrical loads, and other relevant data will be provided to the City. If design plans include changes to roadway or intersection geometrics, a supporting traffic study or analysis for the modification can be provided to the City if included in the assignment scope.

We understand it is anticipated that projects will be accommodated within an existing right-of-way. However, if necessary, we can prepare legal descriptions and plats for processing by the City to obtain additional rights-of-way or easements. This work will include all research, surveys, obtaining title reports, etc. to complete required right-of-way easement documents.

Plans will be submitted at 30%, 80%, and 100% completion level in electronic PDF format and in full-size hard copy format as requested. Final approved signed plans will be on 4-mil mylar and electronic files will be provided in PDF and AutoCAD formats. All design files and utility correspondence will be provided to the City.

We will prepare and submit permit applications to outside agencies if necessary for project implementation. Permits may be processed through agencies by the City or by our office if directed. Any fees required to obtain agency permits will be paid by the City or considered a reimbursable expense.

An estimate of probable construction cost will be prepared for 80% submittal including quantities and unit prices. The quantities and cost estimate will be revised/updated as necessary for each subsequent submittal.

Technical specifications and special provisions for traffic signal and related work will be prepared on an as-needed basis based on the latest City specifications. We will coordinate with City staff to discuss and identify any updates/revisions to the specifications before documents are modified. The specification documents will be included with the 80% plan submittal and revised with subsequent submittals, as required. Preparation of bid documents and technical specifications will be prepared in accordance with the requirements of the project funding source.

Task 2: Signing and Striping Plans

Stantec will prepare signing and striping plans using AutoCAD at 1" = 40', horizontal scale, for implementation of project improvements. The plans will indicate the new striping and pavement markings within the Project limits and removal of existing delineation and pavement markings as necessary. The plans will also include existing signs and new signs if necessary to meet current California Manual on Uniform Traffic Control Devices (CA MUTCD) standards. The traffic sign work will be based on a field inventory of existing delineation, markings, and signs and an assessment of new project signage upgrade requirements, as appropriate. All improvements will be based on the latest California Manual on Uniform Traffic Control Devices (CA MUTCD) and City of Orange standards.

Task 3: Streetlighting Plans

Street lighting plans will be prepared in AutoCAD format compatible with City requirements at 1" = 20', or 1" = 40', horizontal scale. We will use existing record drawing, field survey topographic, R/W and property data to create an intersection/roadway base map at project locations. The plans will include all necessary details, and general and construction notes. For stand-alone lighting projects, the improvement plan set will include a title sheet and detail sheet(s) as required. Supporting design information such as photometric analysis, conduit fill calculations, electrical loads, and other relevant data will be provided to the City.

Task 4: Traffic Control Plans

Traffic control and staging, including but not limited to minimum thorough and turn lane requirements, access requirements, and construction restrictions will be discussed and a consensus achieved with the City prior to development of plans. Traffic control will follow the guidelines established in the latest CA MUTCD and City of Orange standards.

Traffic control plans will be prepared using AutoCAD, at 1" = 40' horizontal scale, "double stacked" with two viewports per sheet. The plans will show traffic control measures required for each project

construction stage including all traffic control devices, temporary lane delineation, and construction signing. Stantec will make every effort to work closely with the City to reduce the impacts of traffic control and lane closures by implementation of an efficient design that emphasizes public and worker safety and cost-effective construction.

Task 5: Traffic Engineering Plan Check

Our team of discipline specialists will conduct plan check reviews for capital and development projects including traffic signal/interconnect, signing and striping, and traffic control plans. Plan reviews will emphasize compliance with latest editions of the City of Orange Standards, CA MUTCD, AASHTO, Caltrans Highway Design Manual, and other accepted industry manuals and guidelines. Our team also includes experts in roadway and civil design, and we can provide a review of plans associated with these disciplines as well, if needed.

When beneficial for plan review and general project knowledge, we will visit project sites to confirm existing improvements and adequacy of project design. Our team will coordinate with City staff and/or other consultants performing simultaneous review of other components of a project, as required. We will typically make plan check comments directly on the plans with the most significant comments summarized in a memo to City staff. We will be available to attend project meetings virtually, or at the City to discuss plan check comments with plan designers.

First review of plans will be completed within 10 working days and subsequent reviews within five working days unless directed otherwise by the City.

Task 6: Traffic Signal Timing and Coordination Studies

Our team of discipline specialists has managed and provided services to several corridor and network projects throughout many municipalities throughout the County of Orange. Stantec developed and implemented improved and synchronized timings and operations, and documented the post-implementation benefits. Our team will provide all the required services to the City with the help of AimTD, who has a long and successful working

relationship with Stantec, to provide traffic data collection services for our team as necessary.

Task 7: Transportation Analysis

Subtask 7.1 – Traffic Studies

Capital infrastructure projects require an analysis of project-level traffic impacts. We will prepare a comprehensive analysis that includes all the necessary information for the City's decision makers to understand the potential impact to the transportation system resulting from the project. We have specialists experienced in the preparation of corridor studies, intersection/roadway improvements, pedestrian and bicycle circulation evaluation, parking studies, and air quality analysis.

To prepare a transportation analysis, we first define the existing conditions using traffic counts and a field review of the project area. We will derive traffic forecasts of future conditions using an appropriate four-step travel demand model considering growth factors to be approved by the City.

We then prepare a roadway capacity analysis for mid-block segments and intersections, along with an access control evaluation. We use the Intersection Capacity Utilization (ICU) method for intersection analysis along with Highway Capacity Manual (HCM) methodology when appropriate. As discussed in Task 7.2: Simulation/Modeling, below, we use various types of sophisticated simulation software depending on the type of project and the amount of public engagement that is needed. Depending on the scale of analysis, we will document the study in letter form, a technical memorandum, or a comprehensive report.

Subtask 7.2 – Simulation/Modeling

Changes to a single intersection or an established roadway corridor can be controversial when the impact of the change isn't fully understood. Our design visualization services help bring into focus critical components of the proposed change and help decision makers and the general public see the effect of the project. Microsimulation also provides accurate traffic information to aid in project design. We use programs such as VISSIM, CORSIM, Synchro/ SimTraffic and Transmodeler to create 3D traffic simulations that show current and predicted future traffic volume, producing detailed operational statistics and animated videos as a final deliverable.

Public involvement brings its own challenge: how do we convey highly technical or complex information to a non-technical audience? With our design visualization tools, we can communicate your project messages in terms that are understandable and relatable. Using Autodesk 3ds Max, we can create 3D models to show your design as a photorealistic rendering or animation, providing useful graphics or discussion.

We also have more interactive visualization methods. Our driving simulators use a gaming engine to make an interactive experience. The person uses a gaming wheel and "drives" through the project, with real-time responses in a virtual version of your project. We also use YouTube 360 to create 360-degree animations that allow users to see every angle of your project as they move the screen around. The technology uses the models created in Autodesk 3ds Max.

Subtask 7.3 – Neighborhood Traffic Calming Studies, Warrant Studies, and Traffic Investigations

Our team is comprised of local traffic engineering experts who have successfully delivered neighborhood traffic calming studies for various cities and homeowners' associations throughout southern California. Implementation of the our team's recommendations brought quantifiable improvements that enhanced safety and efficiency for the residents.

Subtask 7.4 – Traffic/Parking Study Review for Private Developments

As an extension of City Staff, we will peer review transportation planning and traffic engineering technical studies prepared by others. Utilizing the City's review checklist, or our own traffic study quality control checklist, we will review the transportation planning studies prepared by other consultants prior to the review by City Staff. We have prepared hundreds of transportation studies ourselves, and have a deep knowledge of requirements for a broad range of transportation study types. Our review will include a thorough check of completeness, a verification of all calculations, and a check of assumptions for reasonableness. Our thorough review will save City Staff time by identifying calculation errors as well as flagging fundamental big picture issues early in the review process, so that City Staff can focus their efforts on the high-level aspects of the project.

Task 8: Technical Support for Funding and Grant Application

Our team includes a seasoned experts who has successfully completed funding and grant applications for several traffic and transportation related projects. Maria Morris' familiarity with funding programs and grants, including preparation of applications, will be of benefit to the City and provide opportunities for project implementation.

Task 9: Special Studies and Civil Design

In addition to the service tasks discussed above, we understand that the City may require additional services on an as-needed basis in support of traffic/transportation projects. Some additional services in which we have successful experiences includes the following:

- Technical services and support for non-motorized capital projects (active transportation)
- Bikeway master plans
- Environmental studies
- Drainage studies
- Roadway improvement plan design
- ADA pedestrian ramp design
- Storm drain design
- NPDES compliance
- Landscaping and irrigation design

Task 10: Traffic Counts and Data Collection

Traffic counts and data collection, if required, will be coordinated by our team and conducted by AimTD a data collection specialist firm. We have a successful working relationship with AimTD on a variety of projects requiring traffic data collection. Having a good existing working relationship allows us to provide the shortest turnaround times possible for collecting and compiling data.

Task 11: General Municipal Traffic Engineering Services

We are also able to provide the City a host of other general traffic engineering services not specifically identified above. Specific services we have successfully provided other public agencies include Engineering and Traffic Surveys (E&TS) for establishing speed limits, safe routes to school, field equipment/infrastructure inventories, pedestrian and bicycle active transportation improvements, ADA compliance, sight distance analyses, design manual/standard plan updates, and more. Our deep bench of traffic, data collection, and civil discipline specialists can meet your specific needs.



Grijalva Park at Santiago Creek Trail, Orange, CA

STANTEC CONSULTING SERVICES INC.**RATE TABLE**

Labor Classification	Hourly Rate
Level 17	
Principal/QA/QC Manager	\$290
Sr. Transportation Specialist	\$290
Level 16	
Sr. Project Manager	\$280
Sr. Civil Engineer/Sr. Survey Manager	\$280
Level 15	
Roadway Task Manager	\$254
Survey/Mapping/Right-of-Way	\$254
Level 14	
Sr. Project Engineer	\$240
Sr. Traffic Engineer	\$240
Level 13	
Sr. Engineer/Project Engineer	\$228
Sr. Transportation Planner	\$228
Traffic Engineer II	\$228
Field Survey Coordinator	\$228
Level 12	
Civil Engineer	\$217
Transportation Planner	\$217
Traffic Engineer II	\$217
Design Engineer	\$217
Level 11	
Engineering Designer	\$206
Sr. Project Coordinator	\$206
Survey Analyst	\$206
Level 10	
Senior Designer	\$190
CAD Technician	\$190
Level 9	
Design Technician	\$183
CAD Technician/Asst. Engineer II	\$183
Project Coordinator	\$183
Assistant Planner	\$183
Level 8	
Project Coordinator	\$177
Junior Engineer/Assistant Engineer I	\$177
Survey Crews	
1-Man Survey Crew	\$240
2-Man Survey Crew	\$365
3-Man Survey Crew	\$490

AimTD**RATE TABLE**

General rate sheets are not provided since project locations vary widely, leading to significant differences in data collection costs.