

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 LG2WB ENGINEERS, INC., dba LINS COTT, LAW & GREENSPAN, ENGINEERS (LLG), a California 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 ONE HUNDRED THOUSAND DOLLARS and 00/100 (\$100,000.00) 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”

LG2WB Engineers, Inc.,
dba Linscott, Law & Greenspan, Engineers
2 Executive Circle, Suite 250
Irvine, CA 92614
Attn.: Keil D. Maberry, Principal

Telephone: 949-825-6175
E-Mail: maberry@llgengineers.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"

LG2WB ENGINEERS, INC.,
dba LINS COTT, LAW & GREENSPAN,
ENGINEERS, a California corporation

*By: 
Printed Name: Keil Maberry
Title: Principal VICE PRESIDENT

*By: 
Printed Name: Richard Barretto
Title: Principal PRESIDENT

"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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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

PROJECT MANAGEMENT STRATEGY

Our general approach focuses on communication, insightful and accurate services, timely delivery of work products, and early anticipation of issues. We carefully reviewed the scope of work to be provided, as detailed in the RFP. We understand that specific tasks will demand sensitivity to issues, experience with project management, and the resources to provide timely and accurate deliverables. *As a large transportation planning and traffic engineering firm, we have the staffing size that allows us to always be available and responsive.* As listed to the right, we would implement the following key approaches to ensure a successful and meaningful project outcome. These key approaches are further explained below:

METHODOLOGY

1. *Innovative High Impact Solutions*
2. *Effective Project Management*
3. *Adherence to the Procedures*
4. *Regular & Effective Client Communication*
5. *Availability & Responsiveness to Client*
6. *Anticipation of Issues & Problem Solving*
7. *Graphics & Visual Simulations*
8. *Well-Documented Reports/Plans*
9. *Schedule & Budget Adherence*
10. *Quality Assurance/Quality Control*

1. Innovative High Impact Solutions

LLG will provide innovative and comprehensive consulting services to enable the City to serve as a model in the practice of innovative transportation planning and traffic engineering.

2. Effective Project Management

Effective project management involves the management of resources, knowledge, and people. We will ensure the Project Team's sound organization, in-depth understanding of the issues and goals, and development/execution of the project plan. Our staffing size allows us to handle multiple tasks simultaneously.

3. Adherence to the Procedures

LLG will adhere to the standards, policies, business methods, and project requirements. This includes understanding Federal, State, and Local regulations and best practices within our discipline.

4. Regular and Effective Client Communication

Daniel A. Kloos, as the Project Manager, would facilitate communication between the City, responsible parties, and the Project Team. LLG frequently uses teleconferencing and emails to expedite project management. LLG will provide written updates on the project's progress since communication is paramount.

5. Availability and Responsiveness to Client

Many of our projects demand that we be responsive and work effectively with other team members. All phone calls and emails are returned within 24 hours.

6. Anticipation of Issues and Problem Solving

We understand that smooth progression is critical to achieving a successful outcome. We embrace a philosophy of anticipating issues or conflicts before they arise. In some instances, issues cannot be avoided but they will be addressed positively and affirmatively.

7. Graphics & Visual Simulations

It is critical to illustrate the issues, analysis, and results. LLG will prepare high-end informative figures, graphs, maps and illustrations for use in the reports and presentations.

8. Well-Documented Reports/Plans

LLG has prepared several thousand technical reports and design plans. We specialize in putting the study's technical elements of the report into a format that our clients and the public can easily understand.

9. Schedule and Budget Adherence

We recognize the importance of the project adhering to a set schedule and budget. We will prepare a schedule and a cost breakdown of the tasks at the beginning of the project for approval. The schedule will be met, and the budget will not be exceeded.

10. Quality Assurance/Quality Control

LLG has a standard practice of quality control that involves both Senior and Principal-level staff members. Every deliverable to the City will be reviewed before leaving our office as part of our Standardized Quality Control Program.



SCOPE OF WORK

It is noted that the RFP has identified a General Scope of Work. Based on our overall sense and understanding of the RFP, we propose the following detailed sample scopes of work to successfully complete the potential assignments that will be based on the letter proposals provided per requested task order. These letter proposals will be based on the fee schedule, included **separately** as an attachment, and will also include a work schedule.

Per the RFP, LLG intends to complete the following scope of work tasks, 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 (peer review) for capital/development projects and traffic control plans
- Street light design and plan check
- Signing and stripping plan preparation and plan check
- Technical support for funding and grant applications
- 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 and on-site support services
- General traffic-related municipal engineering services

TASK 1 – PREPARATION OF TRAFFIC IMPACT ANALYSIS REPORTS

The following is the general anticipated work program, which focuses to the preparation of a traffic impact analysis report (i.e. for Project Level Transportation Analysis and/or Long Range Corridor Studies [General Plans and Specific Plans]), which includes specific work tasks for Trip Generation Analysis, On-Site Circulation Analysis, Access Studies and Data Collection.

1.1 – Contact City staff to discuss the project and analysis criteria, confirm the study approach, identify key traffic issues, and formalize the Scope of Work. In consultation with City staff, prepare a scope agreement detailing the study area, assumptions, traffic analysis scenarios, related projects for near-term cumulative assessment, need for long-term buildout analyses, and overall traffic impact report requirements. Submit the scope for City review and approval.

1.2 – Visit the project study area to confirm existing conditions. Confirm the existing roadway striping, traffic control measures, curbside parking restrictions, adjacent intersection configurations, and other pertinent roadway features within the project study area. Identify the existing transit system



and bus stop locations within the project study area.

1.3 – Conduct manual turning movement counts during the morning (7:00 AM to 9:00 AM) and afternoon (4:00 PM to 6:00 PM) peak periods at the identified key study intersections within the project vicinity. The traffic counts will also include pedestrian and bicycle counts if necessary. If required, the turning movement traffic counts will be conducted with FHWA vehicle classifications.

1.4 – Conduct 24-hour daily machine traffic counts at identified key roadway segments to support the roadway segment capacity analyses. If required, the 24-hour daily traffic counts will be conducted with FHWA vehicle classifications.

1.5 – Research recent traffic impact studies and data on nearby developments that may contribute cumulative impacts to adjacent streets and study areas. The compiled list of cumulative projects will be submitted to City staff for review and approval.

1.6 – Determine and present in tabular and/or graphic form a trip generation forecast for the proposed Project on a daily and peak-hour basis. The forecasts will be based on the trip generation rates found in Trip Generation, 11th Edition, published by the Institute of Transportation Engineers (ITE) [2021]. Appropriate adjustments to the trip generation potential of the Project to account for internal capture and/or pass-by traffic will be made, if applicable. In addition, if applicable, all truck trips will be converted into passenger car equivalents (PCE) for capacity analysis.

1.7 – Prepare select zone model runs for the proposed Project using the Orange County Transportation Analysis Model (OCTAM) as provided by the Orange County Transportation Authority (OCTA), if needed. This will be done for the Daily, AM and/or PM peak periods to determine the overall Project trip distribution pattern. The distribution patterns will be submitted for review and approval by City Staff prior to finalization and will be used to formalize the study area.

1.8 – Assign the forecasted Daily, AM and PM peak hour trips expected to be generated by the proposed Project to the study intersections and roadway segments based on existing and anticipated traffic patterns to and from the Project site.

1.9 – Develop estimated trip generation projections for each of the cumulative projects within the Project vicinity. Distribute and assign cumulative project traffic.

1.10 – Develop AM & PM peak hour & Daily traffic volume projections at key study intersections and key roadway segments for existing plus project traffic conditions, near-term traffic conditions & long-term traffic conditions (if required, long-term traffic projections will be developed via the use of the most current OCTAM).

1.11 – Provide recommended mitigation measures which may include intersection and/or signalization improvements, striping modifications, the addition of

auxiliary turn lanes, traffic control/limitations at site access points, etc.

1.12 – Conduct traffic signal warrant analyses at impacted unsignalized intersections and project driveways using CAMUTCD peak hour warrants. Calculate the Project’s net traffic increment (fair-share percentage) at these intersections and estimate its contribution toward mitigation costs.

1.13 – Conduct neighborhood traffic calming studies, traffic investigations, and additional warrant studies as needed. These efforts will address safety concerns and support data-driven recommendations for mitigation and operational improvements.

1.14 – Review the proposed access and internal circulation, commenting on parking layout, ingress/egress safety, driveway sight distances and locations, striping, median modifications, and pedestrian and bicycle circulation.

1.15 – Prepare a traffic impact analysis report that details all of the above-mentioned items, including our analysis, findings and conclusions. The report will be submitted for review by City staff. If necessary, update the traffic impact analysis report based on City staff comments and submit a final traffic impact analysis report to the City.

TASK 2 – VEHICLE MILES TRAVELED (VMT) ANALYSIS REPORTS



The following is the anticipated work program, which focuses on the preparation of a Vehicle Miles Traveled (VMT) Analysis Technical Memorandum.

2.1 – Coordinate with City Staff to confirm the assumptions that can affect the analysis and confirm VMT requirements and thresholds as adopted by the City. Use the most current OCTAM, convert proposed Project development totals into Socioeconomic Data (SED), and code the appropriate land uses and network assumptions into the baseline and cumulative Traffic Analysis Zone(s) (TAZs) for the project.

2.2 – Determine Project impact based on the City’s adopted guidelines. Utilize up to three (3) efficiency metrics such as per capita, per employee, and/or per service population as the regional average threshold.

2.3 – Prepare and conduct full model runs for the applicable scenarios listed below via the use of the most current OCTAM. The land uses in the TAZ or TAZs of which the Project is contained will be changed to reflect the “with Project” conditions. The analysis scenarios associated with the model update and runs are listed below:

- Baseline Year Conditions
- Baseline Year With Project Conditions
- Buildout Year Conditions
- Buildout Year With Project Conditions



2.4 – Evaluate the “With Project” Scenarios noted above for Baseline and Buildout conditions and summarize the VMT as outlined in the City’s guidelines.

2.5 – Calculate the Baseline and Buildout City and/or regional average VMT thresholds and determine Project and Buildout impacts based on the VMT guidelines adopted by the City.

2.6 – Recommend appropriate mitigation measures, if necessary, to reduce the impact. LLG will consider the mitigation measures listed in the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (dated October 2024), prepared by the California Air Pollution Control Officers Association (CAPCOA).

2.7 – Quantify the effects of the mitigation improvement by utilizing the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*.

2.8 – Prepare a VMT Analysis Technical Memorandum detailing all the above-mentioned items, our findings, and conclusions. The technical memorandum will be suitably documented with appropriate text, tabular, graphic, and/or appendix materials. The technical memorandum will be submitted and reviewed by City staff. Comments will be addressed in the final VMT Analysis Technical Memorandum.

2.9 – Attend project coordination meetings with City staff as necessary during the preparation of the VMT Analysis Technical Memorandum.

2.10 – Additional services that LLG can also assist the City as follows:

- Project Screening
- Transit Priority Area (TPA) Mapping
- VMT Mitigation Analysis (TDM and Fee Programs)
- VMT Guidelines and Policy Support
- Climate Action Plan Support and Air Quality VMT

TASK 3 – PREPARATION OF PARKING DEMAND ANALYSIS REPORTS

The following is the anticipated work program, which focuses on the preparation of a parking study.

3.1 – Meet with City staff to identify pertinent parking issues and concerns and formalize a Scope of Work for the parking study.

3.2 – Conduct a visit to the site area and review existing on-site conditions.

3.3 – Prepare a parking analysis for the proposed Project. The contents of the parking analysis will be based on the approved City Scope of Work and may include the following analyses:

- City-code parking evaluation
- ULI Shared Parking evaluation
- Survey Shared Parking evaluation
- Parking analysis based on other parking resources (i.e., ITE Parking Generation 5th Edition, etc.)



3.4 – Prepare a Parking Letter Report that details all of the above-mentioned items, including our analysis, findings,

and conclusions. The report will be submitted for review by the appropriate members of City staff. If necessary, update the Parking Letter Report based on City staff comments and submit a Final Parking Letter Report to the City.

3.5 – Attend project coordination meetings with City staff as necessary during the preparation of the Parking Analysis.

3.6 – Additional Studies will be prepared and may include the following if required:

- Accumulation Surveys
- Utilization Surveys
- Neighborhood Parking Surveys
- Parking & Traffic Management Plans
- Parking Structure Review
- Parking Design/Layout



TASK 4 – PREPARATION OF TRAFFIC DESIGN PLANS

The following work program is proposed for the preparation of a “typical” PS&E (plans, specifications, and estimates) package, which consists of traffic signal, signing and striping, and work zone traffic control plans.

4.1 – Review existing & proposed improvement plans for the proposed project. Confirm that the proposed improvements accurately reflect the requirements of the City. Meet with City staff to discuss any special requirements involved in the project’s design before commencing development of the plans.

4.2 – Coordinate with the City for pertinent street/signal design standards. The traffic signal and signing/stripping design will be prepared according to City requirements and will be consistent with the State of California Department of Transportation Standard Plans and Specifications and the current California Manual on Uniform Traffic Control Devices (MUTCD).

4.3 – Field Review & Data Collection: LLG will conduct site visits to document and verify existing surface conditions, including street geometry, signage, traffic signal infrastructure, and utilities. Field notes, measurements, and photographs will support the development of accurate design plans. LLG will also review City records and existing plans to ensure all data is reflected in the final plan set. Electronic (PDF) and hardcopy files will be provided as needed for City and utility coordination.

4.4 – Topographic Survey & Utility Coordination: LLG will obtain aerial and topographic surveys as needed, based on available base mapping & project requirements. We will research existing utility information from the City and utility companies to coordinate proposed improvements with field conditions. LLG will distribute plans to external utility providers, collect & document responses, & incorporate all comments from City departments and utilities into the final plan set in coordination with the City’s Project Manager.

4.5 – LLG will be responsible for preparing any permit applications for outside agencies (Caltrans, County, railroad, etc.) that may be necessary during the course of the project. LLG understands that administration of the

permit through the permitting agencies’ process may also be required on the City’s request.

4.6 – LLG will be responsible for the preparation of right-of-way/easement documents for processing by the City. This will include any services (i.e., survey) necessary to complete the task.

4.7 – Prepare traffic signal installation or modification plans for the project intersections. The plans will be prepared at 1” = 20’ (20 scale) using AutoCAD or MicroStation drafting software on 24” x 36” plan sheets. The plans will incorporate all aspects of the traffic signal, including new and relocated signal standards, all signal heads, loop detectors, conduits, the controller assembly, and service point locations. We will show all related street/intersection improvements on our plans to be prepared by the Civil Engineer. The plans will conform to the City’s Standard Plans, Special Provisions, and any staff special requirements, as well as the latest Caltrans Standard Plans and Specifications. The traffic signal plans will be prepared under the supervision of and signed by a Registered Civil Engineer. Traffic plans will include existing overhead circuit elevations, conduit fill capacity, and electrical load requirements. LLG will provide City staff with the design support information and/or calculations for consideration during the City’s review of the plans.

4.8 – Prepare signing and striping plans for the project street segments. Our plans will be prepared at 1” = 40’ (40 scale) using AutoCAD or MicroStation drafting software on 24” x 36” plan sheets. Our plans will include all new striping, pavement markings, pavement legends, and stripe removals. At the project limits, we will reference in existing striping based on topographic information and field review. For those projects that require the preparation of roadway design plans, the plans prepared by the project civil engineer will be used as a base. For those projects that do not have significant roadway work, LLG will prepare the base for our signing and striping plans using applicable as-built plans and field review surveys. Note that if the signing and striping work is fairly minor, signing and striping improvements could be shown on the signal plan itself to save the City time and money.

4.9 – Prepare work zone traffic control plans and detour plans for the implementation of the proposed street/intersection improvements. Our plans will be prepared at 1” = 40’ (40 scale) using AutoCAD or MicroStation drafting software on 24” x 36” plan sheets. Our plans will incorporate all aspects of traffic control devices, using the Work Area Traffic Control Handbook (WATCH) and California MUTCD as references.

4.10 – Prepare the appropriate traffic signal timing plans that identify the proposed signal cycle length, minimum green times, green intervals, offsets and time of day operation. Submit the traffic signal timing plans to the City for review and make any necessary revisions to the timing plans based on City comments. Produce a signed copy of

the signal timing plans and submit to the City for approval. Provide field support for data collection, implementations, and troubleshooting.

4.11 – Prepare Special Provisions/Technical Specifications for traffic signal design projects per City requirements. A Word document will be submitted with the first plan set submittal, with updates provided in subsequent submittals as needed.

4.12 – Submit copies of the completed plan set to the City for initial review and comment. Copies to other agencies will be provided for their review, as necessary. The plan set package will be complete with all required sheets, including a title sheet, roadway plans, signing and striping plans, traffic control plans, and traffic signal plans.

4.13 – Revise design plans, Special Provisions, & cost estimates per City comments and submit second & third plan sets for final check and approval. After plans are approved, we will submit one set of mylar plans for signatures. All final plans and reports will be signed and stamped by a licensed professional engineer. Design plans will be submitted to the City at 60%, 90% and 100% levels. Final drawings will be wet signed and stamped on 24" x 36" mylar.

4.14 – Review and comment on traffic-related standard drawings that the City is developing to assure compliance with California MUTCD and Caltrans requirements.

4.15 – Attend coordination meetings with City staff, the project Civil Engineer, and/or other public agencies to ensure projects are processed within established deadlines.

TASK 5 – PLAN CHECK OF TRAFFIC-RELATED TECHNICAL REPORTS

5.1 – Meet with City Staff to identify key traffic issues and concerns. As part of the City's plan check process, LLG will assist in preparing a Scope of Work and/or reviewing the applicant's traffic engineer's work program. LLG will also review the site area, circulation, and access conditions to familiarize ourselves with the project location.

5.2 – Evaluate and review the traffic impact analysis report for the proposed project prepared by the applicant's traffic engineer. The report and its accompanying appendices will be reviewed to ensure consistency and compliance with City requirements and guidelines, the current Congestion Management Program (CMP), and standard engineering practices. Our evaluation will focus on, but is not limited to, the following:

- Traffic forecasting and methodology
- Intersection operations and mitigation
- Confirmation of findings and conclusions

5.3 – Review project site access and circulation, including driveway locations, sight distance, internal circulation, and truck or service access.

5.4 – Evaluate and review the parking demand analysis report for the proposed project prepared by the applicant's

traffic engineer. The report and its accompanying appendices will be reviewed to ensure consistency/compliance with City parking requirements and ULI's Shared Parking methodology (if applicable). Our evaluation will focus on, but not limited to, the following:

- Parking forecasting methodology and accuracy of parking forecasts
- Parking methodology and assumptions
- Parking demand/supply analysis
- Confirmation of findings and conclusions

5.5 – Evaluate and review the Vehicle Miles Traveled (VMT) analysis report for the proposed project prepared by the applicant's traffic engineer. The report and its accompanying appendices will be reviewed to ensure consistency and compliance with City requirements and guidelines such as Senate Bill 743 (SB 743) and standard engineering practices. Our evaluation will focus on, but not limited to, the following:

- VMT screening analysis
- VMT forecasting methodology and accuracy of traffic forecasts
- Travel Demand Model Inputs and Land Use to SED Conversion
- VMT and Travel Demand Model assumptions, including the development of the Project VMT and the Regional VMT (City VMT). The model input and output model files will be required to complete this review task
- Mitigation strategies (e.g., TDM measures) and CAPCOA-based effectiveness
- Reasonableness of findings and conclusions

5.6 – Products prepared as part of this Scope of Work include a memorandum summarizing our review and comments or report mark-ups. The memorandum will present our evaluation of the traffic impact, parking demand, and/or VMT analyses, with specific recommendations addressing any identified accuracy or methodological shortcomings.

TASK 6 – PLAN CHECK OF TRAFFIC-RELATED DESIGN PLANS

The following is the anticipated work program, which focuses on a plan check (including peer review elements) of traffic-related design plans.

6.1 – Meet with City Staff to identify pertinent traffic issues, concerns, and any special requirements involved in the project's design. Visit the site area and review existing conditions on the project area streets (i.e., limits of the design work).

6.2 – Evaluate and review the design plans (i.e., traffic signal plans, signing and striping plans, traffic control plans, signal timing plans, etc.) prepared by the applicant's traffic engineer. The design plans will be reviewed to ensure consistency with City requirements and consistency with the State of California Department of Transportation

Standard Plans and Specifications and the current California Manual on Uniform Traffic Control Devices (MUTCD).

6.3 - Products prepared as part of this Scope of Work include the preparation of plan mark-ups and/or a memorandum summarizing our review comments.

TASK 7 – INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

LLG staff has been providing Intelligent Transportation Services (ITS) for various agencies for over two decades and below is a list of anticipated tasks:

7.1 – Provide the City with traffic signal synchronization traffic controller technology and communication systems with International Municipal Signal Association (IMSA) Transportation Center System Specialist Level I, IMSA Traffic Signal Senior Field Technician Level III certifications.

7.2 – Provide traffic engineering design plans for various infrastructure projects, including new and modified traffic signals, wired and wireless communications, street lighting, signing and striping, and construction detours.

7.3 - Provide the City with support for the complexities and implications of various traffic signals, communications, and ITS upgrades.

7.4 – Provide support to the City for Traffic Signal Systems projects that include installing and upgrading ITS elements such as signal control systems at the respective Traffic Management Centers, signal design and signal timing preparation and implementation, signal controller and assembly upgrades, and operating, maintaining, and supporting/monitoring the traffic signal systems.

7.5–Implement, fine-tune, operate, monitor, and troubleshoot various signal systems and ITS applications on a continual basis.

7.6 - Additional ITS service that LLG can also assist the City as follows:

- Traffic Signal Synchronization, implementation, fine-tuning and monitoring for individual Cities or multijurisdictional between Cities, County and Caltrans
- Network & communication development and support
- System integration, signal timing design, and implementation
- Inventory of ITS Components and Subsystems
- Infrastructure Monitoring & Operational Maintenance
- Traffic Signal Hardware and Software installation, operations, and maintenance
- Adaptive signal implementation and technical oversight
- Implementation of Traffic Management Center (TMC)
- Troubleshooting Traffic Related Equipment (Network, Controllers, and Timing)

TASK 8 – SPEED DATA ANALYSIS

8.1 – Conduct engineering studies (ENT Studies) as defined in the California Vehicle Code (CVC) for the review of all speed zones adopted by ordinance, analyze speed data and

recommend speed limit changes and safety-related improvements.

8.2 – Engineering and Traffic (E&T) Surveys or Speed Zone Surveys to determine appropriate speed limits for a roadway. These surveys are required by the California Vehicle Code (CVC) and other regulations to ensure speed limits are based on prevailing speeds, accident history, and road conditions. The surveys are typically conducted every five years or more frequently if changes occur in the roadway or traffic conditions.

TASK 9 – INTERSECTION CONTROL STUDIES & WARRANT ANALYSES

The following is a list of intersection control studies that LLG can provide to the City as needed.

9.1 – Multi-Way Stop: Conduct an engineering study for the consideration of a Multi-Way Stop installation that utilizes the methodology described in Section 2B.07 of the latest Edition of the California Manual on Uniform Traffic Control Devices (MUTCD) or conforms to City Policies and Procedures for Residential Multi-Way Stop Signs. Traffic counts will be conducted for all approaches to the intersection and will be performed for 24 hours during a typical workday (unless specified otherwise).

9.2 – Traffic Signal: Conduct traffic signal warrant analysis for the consideration of a traffic signal installation. The engineering study would utilize the methodology described in Chapter 4C of the latest Edition of the California MUTCD. Unless specified otherwise, it should be assumed that warrants 1 through 8 will be analyzed for each location requested. Machine traffic counts will be performed for all approaches to the intersection and will be performed for 24 hours during a typical workday (unless specified otherwise).

9.3 – Determine the most appropriate intersection control at a requested intersection for the control measures listed above. All alternatives shall be compared on the basis of safety, user delay & implementation cost. The results of the study, including recommendations, shall be summarized in memorandum format and submitted to the City for review.

TASK 10 – TRAVEL DEMAND MODELING

The following is the anticipated work program, which focuses on the preparation of a City of Orange Specific OCTAM Version.

10.1 – Coordinate with City Staff to identify key traffic issues and develop or update a citywide traffic forecast model for Specific Plans, Master Plans, and/or General Plan Updates. This model will also support VMT analysis and ensure compliance with Senate Bill (SB) 743 for future development.

10.2 – Development or Update of the City of Orange Transportation Analysis Model that will tier-off OCTAM and will allow for micro-level detail, validation, and refinement within each Traffic Analysis Zone (TAZ) within the City's jurisdiction.

10.3 – Verify in the field the existing roadway network for the base year model. All planned buildout network improvements will be confirmed for inclusion within the future year scenario.

10.4 – Coordinate with the City and confirm all Existing and Buildout model inputs.

10.5 – Review every TAZ within the City in detail, inputting and validating the latest adopted socioeconomic data and land uses alongside network assumptions. The data, consistent with the City's General Plan, will include households, demographics, and employment and will be reviewed by the City.

10.6 – Calibrate the Orange Transportation Analysis Model to allow for more precise, detailed integration of City land uses to improve long-term induced travel modeling capabilities.

10.7 – Conduct sensitivity modeling for the above analysis scenarios. Land use data will be organized by existing TAZs.

10.8 – Evaluate the scenarios noted above for the Baseline and Cumulative conditions, and summarize the following types of VMT:

- Project generated VMT per Capita (VMT/Cap), VMT per Employee (VMT/Emp) and/or VMT per Service Population (VMT/SP) and compare it to the appropriate benchmark noted in the City's Guidelines.
- Project impact on VMT: comparing changes in Citywide VMT due to the Project.

10.9 – Calculate the Baseline & Buildout City average VMT per Capita (VMT/Cap), VMT per Employee (VMT/Emp), VMT per Service Population (VMT/SP) and/or Citywide VMT.

10.10 – Additional services that LLG can also assist the City as follows:

- Travel behavior survey & evaluation, data visualization
- Future traffic volume forecasts
- Select zone and link analysis
- Average trip length (ATL) analyses
- Transit and highway corridor assessments
- Location-based analytics
- Assessment of transit and shared mobility systems
- Connected/Autonomous Vehicles planning and modeling analyses
- Network development assignments

TASK 11 – BIG DATA ANALYTICS

Travel behavior is difficult to predict using traditional methods due to heavy assumptions. Big Data from GPS-enabled devices offers real-world insights into commuter patterns, allowing LLG to enhance transportation planning with greater context and accuracy.

11.1 – Apply big data analytics for the following based on individual project needs:

- Origin/Destination Studies
- Select Link Analysis
- Travel Time/Speed Studies
- Trip Length Studies
- Performance Measurements
- Multi-Modal TDM Opportunities Review
- Internal/External Studies
- Commercial Trips
- Segment Congestion
- Parking Studies



TASK 12 – GEOGRAPHIC INFORMATION SYSTEMS (GIS)

12.1 – Utilize state-of-the-art software to support transportation-related planning and analysis. Our team can develop and manage spatial databases, integrate existing datasets, and generate customized maps and reports tailored to specific project studies or action plans. GIS outputs can include land use, transportation networks, elevation, and environmental features to inform decision-making and visualize data effectively.

TASK 13 – GRANT WRITING SERVICES

13.1 – Notify the City of all applicable Grant funding opportunities from all sources.

13.2 – Provide the City with technical and grant writing support in applying for regional, state, and federal grant opportunities. Prepare competitive grant applications for both Planning Action Plans and Implementation Projects.

13.3 – Provide the City with grant components including application narrative, project justification, grant-specific objectives, project scope of work, and project timeline.

TASK 14 – STAKEHOLDER AND PUBLIC OUTREACH

14.1 – Identify Stakeholders and City Needs: LLG will collaborate with City staff to identify key stakeholders, such as local agencies, emergency services, schools, public health organizations, and community groups, to ensure broad representation. In parallel, we will develop an understanding of community needs by identifying priority topics to guide engagement and generate meaningful public feedback.

14.2 – Stakeholder Engagement Committees: LLG will coordinate with the City to establish and facilitate key stakeholder groups, including a Stakeholder Working Group (SWG) and other project-specific committees. These groups will guide plan development, ensure alignment with City priorities, and provide input from technical experts and community representatives.

14.3 – Community Engagement Plan (CEP) Development and Implementation: LLG will prepare and implement a detailed Community Engagement Plan (CEP) that will actively involve the community in the planning process for

the project. The outreach plan will leverage LLG's experience to maximize engagement and ensure input is collected effectively.

14.4 – Public Workshops: LLG will coordinate a mix of in-person and virtual workshops, supported by digital engagement tools, to gather broad community input on transportation safety issues. We will lead presentations, engage technical staff, and manage Q&A sessions to ensure productive dialogue. The draft Community Engagement Plan (CEP) will be reviewed by City staff and the Stakeholder Working Group (SWG), with LLG incorporating feedback before finalizing it for implementation. The workshops will:

- Feature an interactive format to solicit feedback from residents.
- Focus on the needs of seniors, commuters, and underserved populations within the City.

14.5 – Website Development, Social Media Content, Online Comment Maps, Feedback Forms and Community Surveys: LLG's outreach efforts will also include the following tools to facilitate broad engagement:

- **Website:** LLG will prepare timely, engaging news releases to inform the public and encourage participation. Content will be shared via a dedicated website, City bulletins, and social media platforms.
- **Social Media Content:** LLG will provide the City outreach content to share through the City's social media platforms.
- **Online Comment Map:** LLG will create an interactive online comment map that will be posted on the dedicated website, allowing community members to provide geographic-specific feedback and comments.
- **Community Survey:** LLG will prepare a community survey to gather public input, with results analyzed to inform the planning process.



14.6 – Public Involvement and Feedback Collections: LLG will analyze stakeholder and public feedback to align community priorities with data-driven findings. Recurring themes will help identify focus areas and guide the development of targeted safety strategies.

14.7 – Feedback Collection for Project: LLG will develop and provide all necessary materials to collect and document public feedback, including:

- Presentation slides and handouts summarizing key findings and proposed strategies.
- Comment forms and surveys to capture attendee input.
- Maps and infographics to illustrate the project visually.

TASK 15 – MISCELLANEOUS TRAFFIC ENGINEERING TASKS & SERVICES

15.1 – LLG is also well qualified to provide the following consulting support services for the City:

- Preparation of Plans, Specifications, and estimates for Capital Improvement Program (CIP) projects

- Multi-Modal and Complete Streets traffic engineering support and policies
- Prepare or review the conditions of approval
- School-related circulation
- Safe Routes to School (SRTS) Plans
- Respond to traffic-related residents' requests
- Transit Studies and Corridor Studies
- Traffic Simulation utilizing Synchro or Vistro software
- Traffic Calming Support, including design and review
- Evacuation Modeling
- Assist staff in producing reports and making presentations on transportation-related topics (i.e., attend Neighborhood meetings, Traffic Commission meetings, Planning Commission meetings and/or City Council meetings)
- Training: provide and facilitate training of staff in specific transportation planning areas as requested by the City
- Upon request, conduct investigations and prepare reports regarding requests for traffic control device installations and modifications, such as parking regulations, speed zones, channelization, crosswalks, pedestrian, and bicycle facilities
- Upon request, advise, support & assist City departments, committees, commissions, and the City Council. In addition, provide an interface with Regional and State transportation agencies. Assist in the preparation of traffic-related portions of the City's operational and capital improvement budgets
- Upon request, assist in the modification of the Traffic Ordinance, development fees and assessment fees for capital traffic improvements and maintenance
- Upon request, assist the City's Director of Public Works & Engineering Services in the selection of other consultants to perform the design of traffic safety projects
- Provide oversight of design and other consultant contracts for traffic safety projects
- Upon request, assist in the modification of the City's Guidelines and Code
- Upon request, prepare warrant studies per latest California MUTCD
- Upon request, provide traffic counts through appropriate subconsultants
- Upon request, LLG will prepare or update an Active Transportation Plan focused on pedestrian & bicycle mobility by assessing existing conditions, engaging the public, identifying infrastructure needs, and recommending prioritized improvements aligned with local, state, and federal guidelines
- Upon request, LLG will prepare a Safety Plan/Report such as a Local Road Safety Plan (LRSP), SS4A Action Plan, etc., by analyzing collision data, identifying high-risk areas, public engagement, and recommending strategies to enhance safety across the City's transportation network

FEE SCHEDULE

The most current Fee Schedule, including the rates of all applicable staff who may be assigned to the City, as well as any applicable overtime hourly rates, mileage costs, and pricing for additional billing requirements, is shown below. All hourly rates quoted at the commencement of any specified project shall remain valid for the duration of that project. Our services will be billed monthly on a time-and-materials basis, according to the Rate Schedule below. Additionally, the fee schedule for our traffic count subconsultant, Transportation Studies, Inc. (TSI), can be found on the following page.

RATE SCHEDULE

<u>TITLE</u>	<u>PER HOUR</u>
Principals	
Principal Engineer	\$ 298.00
Associate Principal Engineer	\$ 268.00
Planning/Design Manager	\$ 249.00
Transportation Engineers	
Senior Transportation Engineer	\$ 226.00
Transportation Engineer III	\$ 200.00
Transportation Engineer II	\$ 171.00
Transportation Engineer I	\$ 147.00
Transportation Planners	
Senior Transportation Planner	\$ 200.00
Transportation Planner III	\$ 171.00
Transportation Planner II	\$ 146.00
Transportation Planner I	\$ 130.00
Signal System Specialist	
Senior Signal System Specialist	\$ 226.00
Signal System Specialist III	\$ 200.00
Signal System Specialist II	\$ 171.00
Signal System Specialist I	\$ 147.00
Technical Support	
Engineering Associate III	\$ 150.00
Engineering Associate II	\$ 145.00
Engineering Associate I	\$ 140.00
Engineering Computer Analyst II	\$ 138.00
Engineering Computer Analyst I	\$ 109.00
Senior CADD Drafter	\$ 140.00
CADD Drafter III	\$ 130.00
CADD Drafter II	\$ 115.00
CADD Drafter I	\$ 98.00
Senior Engineering Technician	\$ 140.00
Engineering Technician II	\$ 130.00
Engineering Technician I	\$ 99.00
Word Processor/Secretary	\$ 92.00
Engineering Aide I	\$ 70.00

- Litigation support may be charged at 125% of the base rate. Consultation in connection with litigation and Court appearances will be quoted separately.
- Project-related mileage will be billed at the prevailing standard mileage rate as determined by the IRS.
- Subcontractors and other project-related expenses will be billed at cost plus 15%.
- The above schedule is for straight time. Overtime will be charged at 1.50 times the standard hourly rates.
- Interim and/or monthly statements will be presented for completed work. These will be due and payable upon presentation unless prior arrangements are made.

FEE FOR SERVICE**CITY OF ORANGE**

24 Hour Machine Counts Volume	\$ 60.00 per location
Intersection Approach Counts 4 leg	\$ 240.00 per location
Intersection Approach Counts 3 leg	\$ 180.00 per location
Intersection Turning Movement Counts *	\$ 45.00 per man hour
Pedestrian & Bicycle Volume Counts *	\$42.00 per man hour
Origin and Destination Studies / License Plate Surveys	\$ 50.00 per man hour
Travel Time Study	\$ 50.00 per man hour
24 Hour Machine Speed Counts	\$ 80.00 per location
Certified Speed Radar Survey	\$ 45.00 per Location

- Intersection Turning Movement Counts & Pedestrian & Bicycle counts can be combined for fee of \$ 45.00 per man hour