

**AGREEMENT WITH AGA ENGINEERS, INC. TO PROVIDE
ENGINEERING & TRAFFIC SURVEY SERVICES**

THIS AGREEMENT is made and entered into this 19th day of October, 2021 by and between AGA Engineers, Inc., a California corporation (“Consultant”), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California (“City”). Consultant and City are also collectively referred to herein as “Parties” or singularly as a “Party.”

RECITALS

- A. On June 28, 2021, the City issued Request for Proposal No. 21-002, by which it sought a qualified consultant to conduct a five-year update of the current engineering and traffic survey for speed limits. The RFP shall be fully incorporated by reference as though attached hereto.
- B. Consultant provided a timely proposal that was selected by City staff. Consultant represents that it is able and willing to provide such services to the City. The Consultant’s proposal dated July 19, 2021 shall be fully incorporated by reference as though fully attached hereto.
- C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

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

1. SCOPE OF SERVICES

Consultant shall perform during the term of this Agreement, the tasks and obligations including all labor, materials, tools, equipment, and incidental customary work required to fully and adequately complete the services described and set forth in **Exhibit A**, attached hereto and incorporated by reference.

2. COMPENSATION

- a. City agrees to pay, and Consultant agrees to accept as total payment for its services for City, the rates and charges identified in **Exhibit B**. The total amount authorized during the term of this Agreement shall not exceed seventy thousand dollars and zero cents (**\$70,000**). The base agreement cost is \$55,020 with a \$14,980 contingency to be used at the City’s sole discretion.
- b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures.

Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on October 18, 2023, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for up to a one-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is \$1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONSULTANT

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

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subcontractors to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subcontractors prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all

Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

- A. Consultant shall procure and maintain for the duration of the agreement insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representative or employees. Coverage shall be at least as broad as:
- 1) Commercial General Liability ("CGL") Insurance- Insurance Services Officer Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury, personal and advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
 - 2) Automobile Liability Insurance- Insurance Services Office Form Number CA 0001 covering, Code 1 (any auto), or if Consultant has no owned autos, Code 8 (hired) and 9 (non-owned), with limits no less than \$1,000,000 per accident for bodily injury and property damage.
 - 3) Workers' Compensation Insurance- as required by the State of California, with statutory limits and employer's liability insurance with limits of no less than \$1,000,000 per accident for bodily injury and disease.
 - 4) Professional Liability Insurance (Errors and Omissions)- Consultant will maintain professional liability insurance appropriate to their profession with limits no less than \$2,000,000 per occurrence or claim and \$2,000,000 aggregate.
- B. If the Consultant maintains broader coverage and/or higher limits than the minimums shown above, the City requires and shall be entitled to the broader coverage and/or the higher limits maintained by Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage, shall be available to the City.
- C. The insurance policies required by this Agreement are to contain, or be endorsed to contain, the following provisions:
- 1) Additional Insured Status- The City, its officers, officials, employees and volunteers shall be covered as additional insureds on the CGL policy with respect to liability arising out of the work or operations performed by or on behalf of Consultant including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10, CG 20 26, CG 20

33, or CG 20 38 and CG 20 37 forms if later revisions used.)

- 2) Primary Coverage- for an claims related to this Agreement, the Consultant's insurance coverage shall be primary insurance and primary coverage at least as broad as ISO CG 20 01 04 13 with respect to the City, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees or volunteers shall be excess of the Consultant's insurance and shall not contribute to it.
- 3) Notice of Cancellation- Each insurance policy required above shall state that coverage shall not be cancelled except with notice to the City.
- 4) Waiver of Subrogation- Consultant hereby grants to City a waiver of any right to subrogation, which any insurer of said Consultant may acquire against the City by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.
- 5) Self-Insured Retentions- Self-insured retentions must be declared and approved by the City. The City may require the Consultant to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claims administration and defense expenses within the retention. The policy language shall provide or be endorsed to provide, that the self-insured retention may be satisfied by either the names insured or the City.
- 6) Acceptability of Insurers- Insurance is to be placed with insurers authorized to conduct business in the State of California with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City.
- 7) Claims Made Policies- If any of the required policies provide coverage on a claims-made basis:
 - i. The Retroactive Date must be shown and must be before the date of the agreement of the beginning of the agreement work;
 - ii. Insurance must be maintained and evidence of insurance provided for at least five (5) years after completion of work under this agreement;
 - iii. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the agreement effective date, the Consultant must purchase "extended reporting" coverage for a minimum of five (5) years after completion of agreement work.
- 8) Verification of Coverage- Consultant shall furnish to City with original certificates of Insurance including all required amendatory endorsements (or copies of the applicable policy language effective coverage required by this clause) and a copy of the Declarations and Endorsement Page of the CGL policy listing all policy endorsements to Entity before work begins. However, failure to obtain the required documents prior to work beginning shall not

waive the Consultant's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

- 9) Subcontractors- Consultant shall require and verify that all subcontractors maintain insurance meeting all of the requirements stated herein. Contractor shall ensure that City is an additional insured on insurance required from subcontractors.
- 10) Special Risks or Circumstances- City reserves the right to modify these requirements, including limits, based upon the nature of the risk, prior experience, insurer, coverage or other special circumstances.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, Consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subcontractors, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

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

10. RECORDS

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

11. CONFIDENTIALITY

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

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

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

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

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702

To Consultant: AGA Engineers, Inc.
211 Imperial Highway
Suite 28
Fullerton, CA 92835
Fax: (714) 992-2883
Attn: Roland P. Hizon

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

14. EXCLUSIVITY AND AMENDMENT

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

15. ASSIGNMENT

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

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

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

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

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, religion, sex, marital status, sexual orientation, gender identity, gender expression, gender, medical conditions, genetic information, or military and veteran status, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, teaching, training, utilization, promotion, termination or other employment related activities or any services provided under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

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

20. PROFESSIONAL LICENSES

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

21. MISCELLANEOUS PROVISIONS

- a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.
- b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

CITY OF SANTA ANA

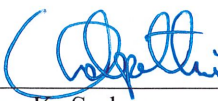
Daisy Gomez
Clerk of the Council

Kristine Ridge
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

AGA ENGINEERS, INC.

By: Laura A. Rossini
Laura A. Rossini
Chief Assistant City Attorney


Chalap K. Sadam
President

[Signatures continue on the next page]

RECOMMENDED FOR APPROVAL

Nabil Saba, PE
Executive Director
Public Works Agency



SECTION 2: SCOPE OF SERVICES AND SCHEDULE

Project Scope of Services

The AGA Team developed the following tasks to provide an orderly and efficient completion of the work needed to conduct the speed zone study based on the RFP requirements and our extensive experience in conducting E&TS for various agencies throughout the years.

Task 0 – Project Management and Coordination

Though not identified as a specific project task in the RFP, AGA developed this task to cover the day-to-day administration of the professional engineering project. To this end, the Project Management and Coordination task will be active throughout the extent of the project.

The AGA Team feels strongly that robust leadership is a key element of AGA's management approach in order to fully leverage the expertise and experience of the Project Team. The Project Manager will ensure the timeliness, cost-effectiveness and overall success of the project. Establishing good working relationships with agency staff and reaching consensus on all proposed project recommendations is extremely important. This can be accomplished with an initial project kick-off meeting to lay the groundwork for the project and understand the agency's perspective including project objectives, scope of work, project schedule and other project related items. Thereafter, additional meetings will be scheduled, as needed.

Task 1 – Conduct Vehicle Speed (Radar) Surveys

The vehicle speed surveys will be conducted in accordance with the *2020 California Manual for Setting Speed Limits* published by the Division of Traffic Operations of the California Department of Transportation.

A minimum of 100 bidirectional speed observations, with a minimum of 50 observations for each direction of travel, will be obtained for the 200 designated City street segments, the list of which will be provided by the City and in accordance with the City's Master Plan of Streets and Highways and the latest California Road System (CRS) Map. This list will be provided by the City at the Project Kick-off Meeting. For street segments containing a raised median, the survey will include a minimum of 100 vehicles in each direction of travel. Obtaining a minimum 100 speed samples for each street segment will ensure that there will be a 95% probability that the sample data represents the population data for this type of study and the actual behavior of the majority of motorists.

The studies will only be conducted during "good weather" conditions on weekdays and when school is in session during the off-peak hours of 9:00 AM to 4:00 PM, unless other specific time limits are specified by the City.

Each speed zone will be surveyed for representative free flow speeds; that is, speeds not influenced by temporary conditions or construction work. The survey will utilize a traffic radar gun which is calibrated and certified periodically to achieve and maintain accuracy.

The vehicle speed surveys will be conducted by our subconsultant, Thomas L. Hartman, a certified Traffic Radar Operator. Certification copies of the radar equipment and the radar operator are provided in **Appendix B**.



The field survey data will be marked on a radar speed survey field sheet similar to the City supplied sample in the RFP with the following additional roadway segment information:

- Adjacent land use types
- Roadway geometrics
- On-Street Parking
- School Zone
- Bike Route
- Pedestrian and bicycle activity
- Lane configuration
- Median type
- No Parking/Stopping restrictions
- Truck Route
- Bike lane facilities
- General Comments

A sample of the radar speed survey field sheet is provided in **Appendix C**. The final format of the field survey data sheet will be pre-approved by the City.

If the collected speed survey data are unusually high or low, AGA will conduct up to twelve (12) radar speed resurveys at the same segment locations at no cost to the City.

AGA will also collect the posted speed limit information for adjacent jurisdictions (e.g., the Cities of Costa Mesa, Irvine, Tustin, Orange, Garden Grove, and Fountain Valley), with roadway segments abutting or under joint control with the City of Santa Ana.

Task 2 – Speed Data Analysis

AGA will enter the field survey data into a speed survey data worksheet to determine the following speed data analytics:

- 85th Percentile speed
- 50th Percentile speed
- 15th Percentile speed
- Average Speed
- 10 mph pace speed
- Percent in pace speed
- Percent over pace speed
- Percent under pace speed

A sample of the radar speed survey data worksheet is provided in **Appendix D**. The final format of the worksheet will be pre-approved by the City.

Task 3 – Roadway Segment Characteristics Review

A licensed Traffic Engineer will review all of the street segments to determine any roadway conditions not readily apparent to the motorist which would justify lowering the proposed speed limit to the maximum reduction permitted under the State established guidelines. These characteristics include the following:

- Street width and alignment
- Channelization and striping patterns
- Reversed super elevation
- Roadside land use
- Heavy pedestrians and/or trucks
- Traffic flow characteristics
- Frequency of driveways
- Visibility obstructions
- Roadway grade
- On-street parking



The product of this review will be a summary of each of the study segments and identification of the study segments which justify consideration for maximum increase/decrease in the recommended speed limits.

Task 4 – Accident History Review and Rate Calculations

The AGA Team will evaluate the most current mid-block accident history (minimum two years) on each of the street segments included in the survey. For accident history analysis purposes, mid-block accidents are defined as those occurring outside of the 150' radius of signalized intersections of the roadway segment being analyzed. This criterion excludes collisions that may be traffic signal related in nature. We have extensive experience in City traffic operations and are well qualified to review accident records.

The mid-block accident rate in terms of “accidents per 1,000,000 vehicle miles of travel” for each segment surveyed will be calculated and shown on the Engineering and Traffic Survey summary sheets. The following shows the accident rate calculation:

$$\text{Accident Rate} = \frac{\text{Number of Midblock accidents} \times 10^6}{24\text{-hour volume} \times 365 \times \text{segment length} \times \text{number of years}}$$

Where:

- Number of mid-block accidents based on a minimum of two years
- 24-hour volume (both directions) for the survey segment
- Segment length in miles

As stated in the *Santa Ana Speed Survey Q&A Set 1*, released July 14, 2021, the City will provide both the accident data and the ADT count information.

A minimum two-year accident data is recommended to be utilized to develop Actual Accident Rates for comparison to the Average Expected Accident Rates which is detailed in the *2017 Collision Data on California State Highways (Revised March 2020)* published by the California Department of Transportation. The Average Expected Accident Rates per roadway type are summarized below:

Roadway Type	Average Expected Accident Rate
Conventional 2 lanes or less (< 45 mph)	1.20
Conventional 2 lanes or less (≥ 45 mph)	0.82
Divided 4 lanes (< 45 mph)	0.91
Divided 4 lanes (≥ 45 mph)	0.90
Divided 5 lanes or more (< 45 mph)	1.00
Divided 5 lanes or more (≥ 45 mph)	1.06

Example:

For a roadway segment with the following information:

- 2 lane roadway
- 35 mph posted speed
- 17 midblock accidents/collisions in 3 years



- 20,079 average 24-hour volume
- 1.11 mile segment

The accident rate for this roadway segment is calculated as follows:

$$\begin{aligned} \text{Accident Rate} &= \frac{17 \times 10^6}{20,079 \times 365 \times 1.11 \times 3} \\ &= \mathbf{0.70 \text{ accidents per million vehicle miles (A/MVM)}} \end{aligned}$$

The Average Expected Accident Rate for this roadway segment type is 1.20; thus, the calculated accident rate of 0.70 is below the expected rate for this example.

The product of this task will be the summary table showing the following:

- Street segment
- Segment length (in miles)
- ADT information
- Number of accidents
- Average Expected Accident Rate
- Actual Accident Rate

A sample of the accident summary table is provided in **Appendix E**. The final format for the accident summary table will be pre-approved by the City.

Task 5 – Segment Spot Speed Analysis

The speed survey data analyzed in Tasks 1 through 4 will be summarized in the Segment Spot Speed Summary Table. The summary will include the information per the City provided sample in the RFP. This table includes the recommended speed limit for the street segment based on the 85th percentile speed and any justifications for setting the speed limit lower than the recommended 85th percentile speed. At a minimum, this table will include the following:

- | | |
|-------------------------------------|--|
| • Street Name | • Mean Speed |
| • Street Segment | • 10 MPH Pace Range |
| • Existing Speed Limit | • Percent of Vehicles in Pace |
| • Recommended Speed Limit | • Date of Survey |
| • 85 th Percentile Speed | • Reason for speed limit change from the 85 th percentile speed |

A sample of the Segment Spot Speed Summary Table is provided in **Appendix F**. The final format will be pre-approved by the City.

Task 6 – Preparation of Draft Report

A report documenting the Engineering and Traffic Study will be submitted to the City for review. It will summarize the existing speed limits and the recommended changes to the speed limits (increase or decrease) in accordance with the requirements of Sections 627, 40802(b), 22357 and 22358 of the California Vehicle Code. AGA will also document any changes in the guidelines based on the 2014 California Manual for Setting Speed Limits (basis for the 2016



E&TS) and the 2020 California Manual for Setting Speed Limits (basis for the 2021 E&TS), if any. It will be submitted to the City for review.

As specified in the RFP, at a minimum, the report will include the following:

- Radar speed survey operational procedures
- Description of the purpose and methodology of Speed Zone establishment, including a discussion of realistic speed zoning, speed traps, CVC requirements, etc.
- Description of the statistical analysis factors
- Description of the field data used in analyzing related roadway characteristics
- Accident history for the street segments
- Results and recommendations
- Summary of recommendations in narrative and table form per City format
- Revision drafts to the City of Santa Ana Municipal Code establishing the new speed limits
- Color Speed Survey Map – sample provided in **Appendix G**.

The report will be a legal document to formally adopt or change speed limits at the surveyed locations.

Task 7 – Preparation of Final Report

AGA will address and incorporate the City's consolidated comments on the draft report into the final report which will be provided to the City in both hardcopy and electronic formats.

Task 8 – Presentations

AGA will make up to five presentations at public meetings to report on the E&TS study findings and recommendations. Mr. Perales, Engineer of Record, will make the presentation(s) and answer any questions that come up.

Task 9 – Sketches for Sign Changes (Optional)

If directed by the City, AGA will survey and document the status of existing speed limit sign/posts at up to 90 locations that may require modifications. AGA's tasks will include:

- Identify each proposed new sign location at a specific distance from the nearest curb extension,
- Indicate if the sign is new, a replacement, and/or removal,
- Indicate if a new sign only or new sign and post will be required, and
- Prepare sketches depicting the above information.

The sketches will be developed by AGA in a manner acceptable to the City and using City formats as described in the RFP, i.e., the sketches will be developed by inserting electronic aerial photos into the Microstation-compatible files and showing the sign posting changes from the nearest curb return extension. AGA has performed this task on several previous speed survey projects, including the ones completed for the City of Santa Ana.

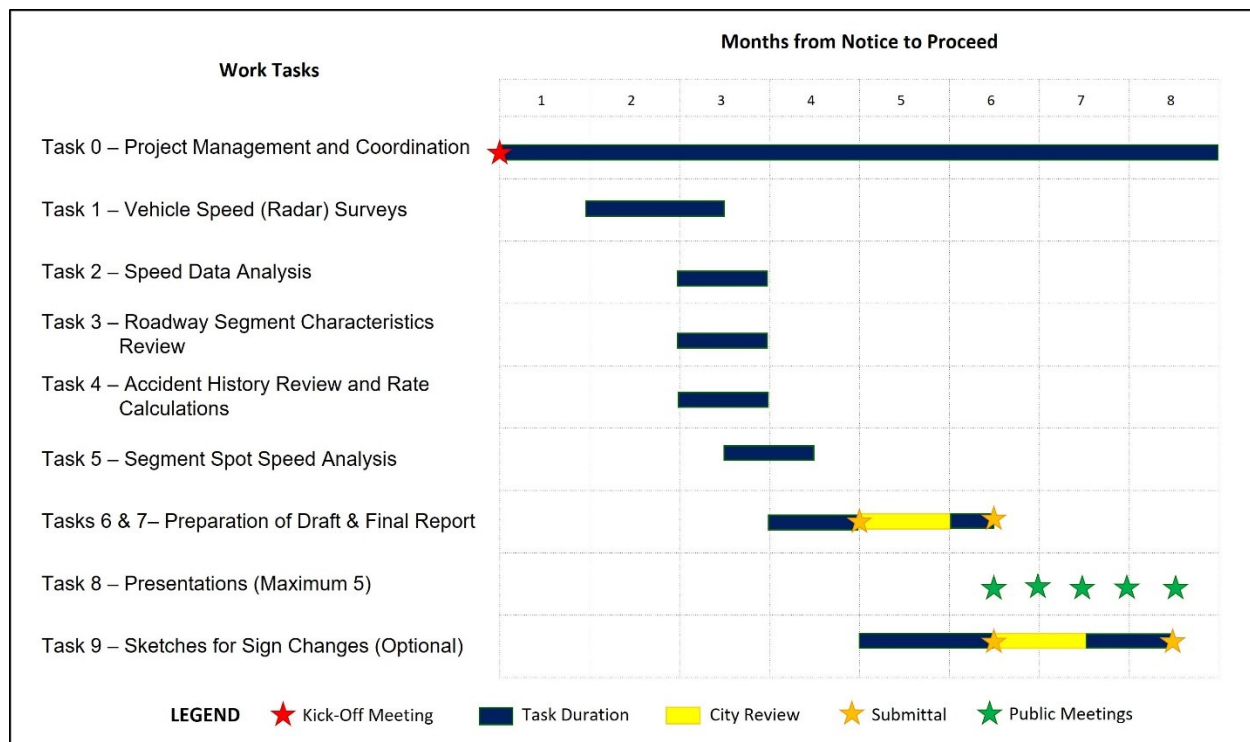


Project Schedule

AGA's proposed project schedule, shown below, has been prepared considering all the requirements for the study detailed in the RFP in estimating the time required to complete the project. AGA has adequate staff resources to provide a Draft Report to the City of Santa Ana within twelve to fourteen weeks from receipt of the notification to proceed, and a Final Report to the City within two weeks of receipt of the written consolidated comments on the Draft Report.

Given the recently adopted changes in the California Vehicle Code relative to raising or lowering speed limits, and the potential for questions relative to speed limit modifications resulting in the need for multiple presentations at the Commission/Council level, our expedited Project Schedule will allow adequate time for these presentations and ensure that the current extended seven-year validity between speed surveys will not lapse.

AGA will coordinate with the City prior to data collection to ensure that no planned construction work or other events will potentially impact the scheduled data collection.



FEE PROPOSAL

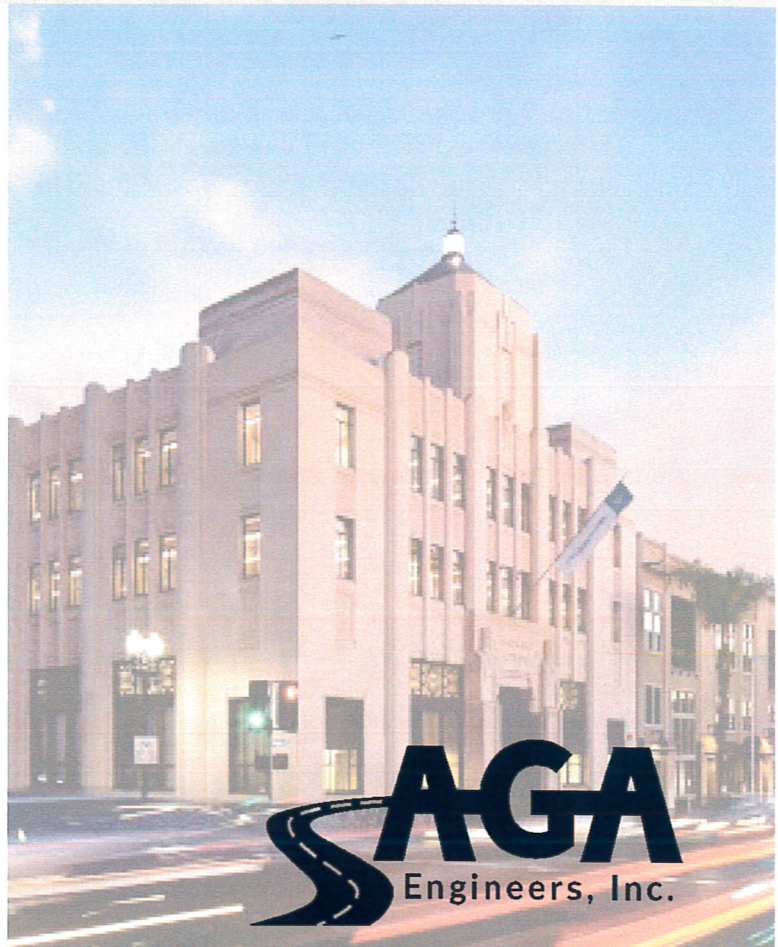
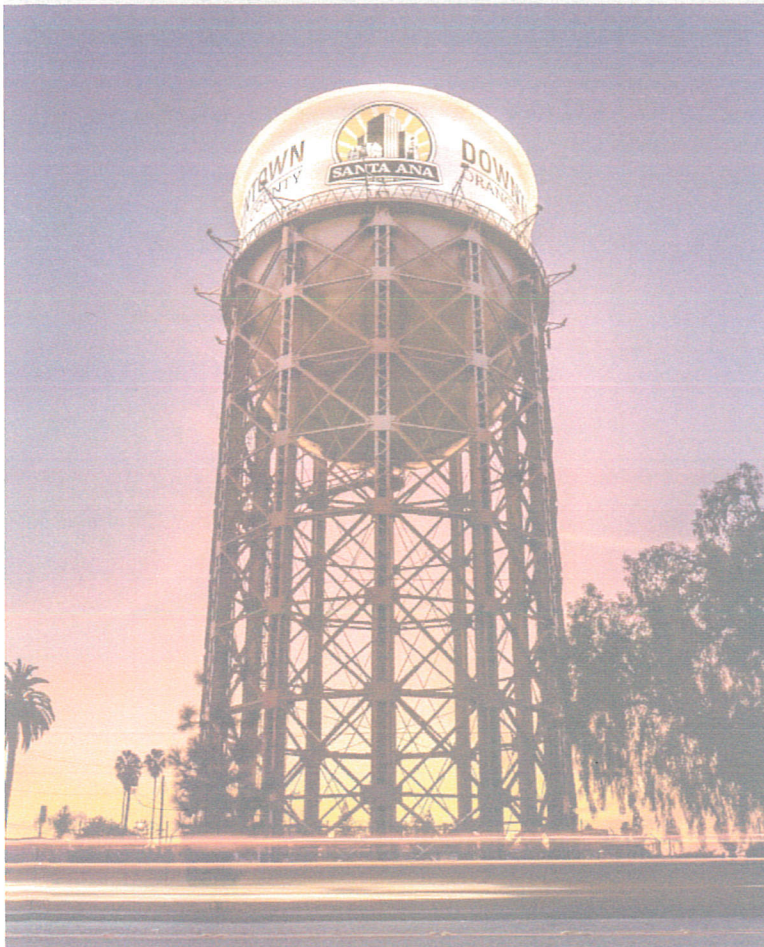
Engineering & Traffic Survey

for Speed Limit Update

RFP NO. 21-002

in the City of Santa Ana

July 19, 2021





Fee Proposal

Our Fee Proposal is presented on the following pages. Per the RFP, this section includes the company's Schedule of Hourly Rates and the Labor Hours and Cost summary for each of the major tasks as detailed in Section 2: Scope of Services and Schedule.

All costs (including data collection costs) have been included. Costs are based on the assumption that 200 roadway segments will be surveyed for speeds. If the number of survey locations is modified, the project costs would likewise be modified at a rate of \$275 per location.

As directed in the RFP, our Fee Proposal also includes a cost for the optional task of developing sketches showing speed limit sign posting modifications at an estimated 90 locations citywide. The unit cost for each sign posting location sketch is \$245.



Schedule of Hourly Rates

Effective May 1, 2021

President/Executive Vice President	\$ 275
Vice President	\$ 250
Director of Project Development	\$ 225
Principal Transportation Engineer	\$ 225
Senior Transportation Engineer	\$ 205
Senior Project Engineer & Project Manager	\$ 200
Senior Design Engineer/Senior Project Development Manager	\$ 195
Senior Associate/Senior Project Engineer/Advanced System Integrator	\$ 185
Transportation Engineer	\$ 175
Senior System Integrator	\$ 170
Senior Signal Systems Specialist/Construction Inspector	\$ 165
Design Engineer/ Signal Systems Specialist	\$ 150
Associate Transportation Engineer III	\$ 140
Associate Transportation Engineer II	\$ 135
Associate Transportation Engineer I	\$ 125
Project Coordinator	\$ 120
Associate Engineer II	\$ 115
CADD Operator/Associate Engineer I/Project Administrator	\$ 110
Assistant Engineer/Assistant Project Coordinator	\$ 100
Transportation Engineering Assistant	\$ 90
Traffic Enumerator, Engineering Aide III	\$ 80
Engineering Aide II	\$ 65
Engineering Aide I	\$ 50
Council/Commission Meetings, Hearings, etc. (Billing Rate + \$50 Surcharge)	\$ 1,000
Expert Witness (Billing Rate + \$50 Surcharge)	\$ 1,000
Expert Witness - Deposition/Court (Billing Rate + \$100 Surcharge)	\$ 1,000
Subconsultants will be billed at cost plus 20%	

Conditions of Usage: The above rates are typically effective for a 12-month period, but AGA maintains the right to change the billing rates at any time for convenience of record keeping. Therefore, all billings will always be at the then current billing rates. This will not affect any agreed upon total or not-to-exceed fees.

INVOICES WILL BE SUBMITTED MONTHLY AND SHALL BE DUE AND PAYABLE WITHIN 30 DAYS. FINANCE CHARGES MAY BE ACCRUED DAILY ON UNPAID BALANCES BASED ON A 10% ANNUAL PERCENTAGE RATE.



Labor Hours and Costs

Task Description	Project Manager	Senior Design Engineer	Associate Transportation Engineer III	Engineering Aide III	Engineering Aide I	Radar Surveys Preliminary Field Review	GRAND TOTAL Hours / Cost
0. Project Management and Coordination	\$185 4 \$740	\$195 4 \$780	\$140 2 \$280	\$80	\$50 2 \$100	---	12 / \$1,900
1. Conduct Vehicle Speed (Radar Surveys)				16 \$1,280		\$8,000	\$8,000
2. Speed Data Analysis	24 \$4,440		12 \$1,680	8 \$640	60 \$3,000	---	\$9,760
3. Roadway Segment Characteristics and Sign Review		40 \$7,800			8 \$400	---	48 / \$8,200
4. Accident History Review and Rate Calculations	16 \$2,960	8 \$1,560	12 \$1,680		40 \$2,000	---	76 / \$8,200
5. Segment Spot Speed Summary	12 \$2,220	4 \$780	8 \$1,120		12 \$600	---	36 / \$4,720
6 & 7. Report Preparation	24 \$4,440	4 \$780	12 \$1,680	12 \$960	12 \$600	---	64 / \$8,460
8. Presentation at Public Meetings	8 \$1,480	20 \$3,900			8 \$400	---	36 / \$5,780
TOTALS (Hours/Cost)	88 / \$16,280	80 / \$15,600	46 / \$6,440	36 / \$2,880	142 / \$7,100	\$8,000	392 / \$55,020
9. Sketches for Sign Changes (Optional) - 90 locations	36 \$6,660	12 \$2,340	40 \$5,600	8 \$640	135 \$6,750	---	231 / \$21,990