

Amendment to Standard City of San José Consultant Agreement

(Capital Projects)

First

Second

Third

Consultant's Name: Kimley-Horn and Associates, Inc.

(CPMS Contract No. N/A)
(Standard Agreement AC No. 29781)

This Amendment is made and entered into this 4th day of May, 2021. The City and Consultant amend the above-referenced agreement as set forth herein.

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1. Capitalized words in this Amendment have the same meaning as in the Agreement.
 2. The provisions of this Agreement and any previous amendments not modified by this Amendment remain in full force and effect.
 3. The provisions of this Amendment are effective upon execution of the Amendment by both parties.
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4. **Agreement Term:** Subsection 2.1 is amended to extend the expiration date from _____ to _____.
 5. **Maximum Total Compensation:** Subsection 10.1 is amended to Increase Decrease the Maximum Total Compensation from \$ _____ to \$ _____.
 6. **Agreement Section(s):**
Section(s) ATTACHMENT A: TASKS; Task No. 1, Task No. 4, Task No. 5, Task No. 6, Task No. 7, and Task No. 8 is/are amended to read as set forth in Attachment A of the Amendment.
 7. **Scope of Basic Services – Exhibit A:** The original First Revised Second Revised Exhibit A is amended to read as set forth in the attached First Second Third Revised Exhibit A, which is incorporated by reference into this Amendment.
 8. **Compensation – Exhibit B:** The original First Revised Second Revised Exhibit B is amended to read as set forth in the attached First Second Third Revised Exhibit B, which is incorporated by reference into this Amendment.
 9. **Additional Service:** The Consultant is authorized to perform the Additional Services set forth in the attached Additional Services Exhibit, which is incorporated by reference into this Amendment.
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This Amendment is executed by the authorized representatives of the City and Consultant as follows:



Email: lily.lim-tsao@sanjoseca.gov

By _____

Name: Lily Lim-Tsao **Date**
Title: Deputy Director, Transportation



Email: brian.sowers@kimley-horn.com

By _____

Name: Brian Sowers **Date**
Title: Sr. Vice President

Approval as to Form (City Attorney):

Form Approved by the Office of the City Attorney.

(Maximum Total Compensation, as amended, is \$100,000 or less, and the provisions of the form are not altered.)



Email: aaron.yu@sanjoseca.gov

Aaron Yu, Deputy City Attorney **Date**

First

Second

Third

Revised Exhibit A: Scope of Basic Services

(Capital Project)

This revised Exhibit A is an attachment to the First Second Third amendment to Agreement.

The tasks set forth in the original Exhibit A, or in any previous amendment to the original Exhibit A, are amended as follows:

Task No. 1, entitled "Project Management," is amended to read as follows:

A. Services:

This task includes project management related tasks and meetings to consist of budget oversight, adherence to project scheduling, and general project coordination.

Kimley-Horn shall arrange an initial Kick-off meeting with City staff to discuss the proposed project approach and deliverables, and will set timetables for consultant deliverables, City review periods, scheduling of implementation, and other administrative details. The Kimley-Horn project manager and one additional staff person will attend the Kick-off Meeting. Kimley-Horn will also collect any available data for the signal timing effort that is available from the City, including:

- Hard copies or electronic copies of the existing timing sheets for the intersections to be re-timed
- Computer files for timing card cover sheets (Software: VISIO)
- Collision data for the past three years, preferably including intersection collision diagrams
- Intersection Condition Diagrams for the project intersections
- Information of service requests/citizen complaints

Kimley-Horn will prepare Draft meeting minutes for the Kick-off Meeting, within five (5) days after the meeting, to be reviewed by the City and Final meeting minutes within two (2) days after City review.

In addition to the Kick-off meeting, Kimley-Horn shall attend up to five (5) project meetings with the City. The primary purpose of the meetings will be to review the existing conditions, various analyses, and the recommended timing. The Kimley-Horn project manager and one staff person will attend each meeting.

Kimley-Horn shall facilitate monthly calls with the City to discuss project progress. Kimley-Horn shall provide the City with written monthly project status updates along with project invoices.

B. Deliverable:

1. Attendance at Kick-off meeting (in person or online)
2. Attendance at up to five (5) project meetings (in person or online)
3. Draft and Final Meeting Minutes

C. Completion Time: The Consultant must complete the services and deliverable for this task in accordance with whichever one of the following time is marked:

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- On or before the following date: ~~12/31/2021~~ ~~6/30/2022~~ **6/30/2023**.
- On or before ____ Business Days from _____.

Task No. 4, entitled “Data Collection Part 2,” is amended to read as follows:

A. Services:

A floating car study will be conducted for each corridor before implementation is completed. Prior to the travel time runs, Kimley-Horn will review the corridors with the City and the methodology for collecting the data. It is expected that travel time runs will be completed along the length of the primary corridor plus crossing corridors along those corridors with intersections on side streets. The travel times will be collected along the following corridors for two hours each during the AM, midday, and PM peak periods, on one Tuesday, Wednesday, or Thursday:

1. 1st Street (NB) from San Salvador Street to Julian Street
2. S. 1st Street (NB & SB) from Keyes Street to Reed Street
3. 2nd Street (SB) from Julian Street to Virginia Street
4. 3rd Street (SB) from Julian Street to Virginia Street
5. 4th Street (NB) from Reed Street to Taylor Street
6. 7th Street (NB & SB) from Keyes Street to San Salvador Street
7. 10th Street (SB) from Taylor Street to I-280 SB Ramps
8. 11th Street (NB) from I-280 SB Ramps to Taylor Street
9. Almaden Boulevard (NB & SB)-Almaden Avenue (NB)-Vine Street (SB) from Santa Clara Street to Goodyear Street
10. Julian Street-W. St James Street (EB & WB) from Stockton Avenue to Market Street
11. Julian Street Westbound from 11th Street to Market Street & Eastbound from 4th Street to 11th Street
12. Keyes Street (EB & WB) from S. 1st Street to Senter Road
13. Market Street (NB & SB) from Reed Street to Julian Street
14. Reed Street (EB & WB) from Market Street to 11th Street
15. St. John Street (EB & WB) from 1st Street to 4th Street
16. San Carlos Street (EB & WB) from Almaden Boulevard to 3rd Street
17. San Fernando Street (EB & WB) from Montgomery Street to 11th Street
18. San Salvador Street (EB & WB) from 1st Street to 11th Street
19. Santa Clara Street (EB&WB) from Sunol Street to Autumn Street
20. Santa Clara Street (EB & WB) from SR 87 Off-Ramp to 11th Street
21. St. James Street (EB) from Market Street to 11th Street & St. James Street (WB) from 11th Street to 4th Street
22. Virginia Street (EB & WB) from Vine Street to 7th Street

The travel times will be collected along all corridors where weekend timing is being developed for two hours each during the weekend AM, midday, and PM peak periods, on one Saturday.

Kimley-Horn shall complete “Before” studies at two stages during the project: before implementation of the initial timing in Fall 2020 (1st Fine-tuning as outlined in Task 6) and before implementation of timing adjustments to be completed in Fall 2021 (3rd Fine-tuning as outlined in Task 6). All “Before” studies will be completed within 3 weeks prior to implementation and fine-tuning of the timings.

A minimum of six runs in each direction will be conducted for each corridor during each peak period that data is collected.

The travel time data will be collected using an Excel based data collection method developed internally by Kimley-Horn. Kimley-Horn will submit the travel time data to the City in Excel format

and will include a summary that shows the average travel time, average stops, total delay time, average speed, average free flow speed, and distance traveled.

In addition to travel time data, each run will be recorded using a digital camera mounted on the window of the car. This will allow us to further verify conditions along the corridor by reviewing the video afterward. The video data files collected during the Before study, which have very large file sizes, will be provided to the City if requested.

B. Deliverables:

1. Floating car studies in electronic format
2. Travel Time Video Recordings on external device

C. Completion Time: The Consultant must complete the services and deliverable for this task in accordance with whichever one of the following time is marked:

- On or before the following date: ~~09/30/2021~~ ~~3/21/2022~~ **3/31/2023**.
- On or before ____ Business Days from _____.

Task No. 5, entitled “Signal Timing Development and Optimization,” is amended to read as follows:

A. Services:

Task 5.1-- Develop Recommended Timing based on Minimum Cycle Lengths

Once the model is verified to reasonably represent the existing conditions, Kimley-Horn will conduct the signal timing analysis and develop recommended timings for the 140 intersections to be retimed. Three weekday plans, to include the AM, midday, and PM peak periods, one weekday Off-peak plan, and three weekend plans, to include the weekend AM, midday, and PM peak periods, will be developed for the 140 project intersections.

As the initial step in the signal timing optimization process, Kimley-Horn shall review the grouping of traffic signals for coordination and the selection of cycle lengths. The goal of signal grouping will be to cluster those intersections together that have similar operational characteristics such as cycle lengths, higher platooning traffic, and shorter travel time between intersections. Proposed cycle lengths will be set based on the minimum reasonable cycle lengths within each coordination group.

Kimley-Horn will submit a summary of preliminary recommended signal groupings and cycle lengths analysis summary, including existing versus proposed performance measures, for review prior to development of the draft signal timing plans. This will allow the City to review the proposed cycle lengths prior to conducting the detailed timing analysis. Kimley-Horn will coordinate with the City to review and discuss the preliminary signal grouping and cycle lengths.

Once the cycle lengths are selected, optimum splits and offsets for the coordination plans will be developed in the Synchro model and adjusted as needed to provide for the optimum timing. The goal of split optimization will be to allocate green time to different approaches in proportion to the overall intersection volume and capacity. Development of the offsets will include an evaluation of the use of alternate phase sequencing (lead/lag phasing) and setting of the offsets based on the corridor traffic conditions (progression priority). Also, the use of Twice-Per-Cycle left turns (TPCLT) to reduce left turn queuing and minimize left turn delay, or the use of phase re-service settings will be reviewed.

The recommended timing development will include the review of the time-of-operation of the signal coordination plans. The time-of-operation will be reviewed based on the daily and weekly volumes and based on field observed conditions.

After the Synchro models are completed, signal timing parameters, critical performance measure information, time-of-operation, and other relevant timing information will be summarized in a Draft Timing Recommendations Memorandum for transmission to the City for review. In addition, recommended Synchro models will be provided to the City. Based on comments received, a Final Timing Recommendations Memorandum and final Synchro models will be submitted to the City.

Task 5.2 -- Develop Revised Recommended Timing

Once traffic returns to near pre-pandemic conditions as agreed upon by the City, the signal timing will be reviewed, and recommended timing adjustments will be developed for each of the timing plans. Any new traffic count data collected and provided by the City (Data Collection 2) will be

incorporated into the models. Kimley-Horn will review cycle lengths to determine if adjustments would be beneficial based upon the new traffic data. Kimley-Horn will submit a summary of preliminary recommended cycle length adjustments (if any) and provide a summary of performance measures comparing the current condition (minimum cycle lengths) with the Revised Recommended conditions.

Once revised cycle lengths are selected, if any, optimum splits and offsets for the coordination plans will be developed in the Synchro model and adjusted to provide for the optimum timing. Revised timing models will be provided to the City for review.

B. Deliverables:

1. Draft and Final Timing Recommendations Memorandum
2. Recommended Timing Synchro Models
3. Revised Recommended Timing Synchro Models

C. Completion Time: The Consultant must complete the services and deliverable for this task in accordance with whichever one of the following time is marked:

- On or before the following date: ~~09/30/2021~~ ~~3/31/2022~~ **3/31/2023**.
- On or before ____ Business Days from _____.

Task No. 6, entitled “Implementaion and Fine-Tuning,” is amended to read as follows:

A. Services:

Once the recommended timings are finalized, marked-up timing sheets will be prepared and submitted to the City for review. Marked-up timing sheets will include changes to the VISIO cover sheets and changes to any timing settings as recommended. One (1) electronic copy of the marked-up timing sheets will be submitted to the City. The timing data will be entered by Kimley-Horn directly into the City’s Transuite system. Depending on City preference, the data can be entered in remotely through a remote desktop or entered into the system from the City TMC.

Once the timing is reviewed by the City, Kimley-Horn will be available to assist with downloading the timings to the field.

Implementation and fine-tuning will be completed at three stages of the project. Marked-up timing sheets will be provided and timings will be entered and downloaded at each fine-tuning stage. The following summarizes the three fine-tuning stages:

- 1st Fine-Tuning Stage -- Fall 2020/Winter 2021:
 - 1A -- Initial Recommended Timing (Minimum possible cycle lengths) with minimum bike min green for through movements plus LPI, ped recall, and walk rest, and if needed:
 - 1B -- Initial Recommended Timing (Minimum possible cycle lengths) with minimum bike min green for through movements
- 2nd Fine-Tuning Stage -- Spring 2021 -- Based on Revised Recommended Timing
- 3rd Fine-Tuning Stage -- Fall 2021 -- Final review of timing

For each stage, once the timing plans have been implemented, our team will conduct fine-tuning by driving the corridors and standing at intersections to observe intersection operations. Kimley-Horn will accompany the City staff during fine-tuning or can complete the fine-tuning without City staff present. Kimley-Horn will notify the City of any fine-tuning adjustments and make changes directly into the system. It is anticipated that two (2) days of fine-tuning will be conducted along each corridor, on days that are representative of typical traffic conditions. If needed, up to one (1) additional day of fine-tuning will be conducted to address City concerns.

Once fine-tuning is completed, Kimley-Horn will prepare final timing sheets in electronic format to include updated VISIO cover sheets, comment pages, and timing sheets. Kimley-Horn will also submit the revised VISIO cover sheets in electronic format to the City.

In addition, Kimley-Horn will update the Synchro models to include fine-tuning adjustments at each stage. Final Synchro models will be submitted to the City in electronic format.

B. Deliverable:

1. One set of marked-up timing sheets in electronic format for implementation (each stage)
2. One set of final timing sheets in electronic format (each stage)
3. Updated VISIO cover sheets in electronic format (each stage, if changes are made)
4. Final Fine-Tuned Synchro models (each stage)

C. Completion Time: The Consultant must complete the services and deliverable for this task in

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accordance with whichever one of the following time is marked:

- On or before the following date: ~~10/30/2021~~ ~~4/30/2022~~ **4/30/2023**.
- On or before ____ Business Days from _____.

Task No. 7, entitled “Evaluation,” is amended to read as follows:

A. Services:

After fine-tuning of the timings, a final “after” travel time study will be conducted to field measure the improvements in system performance. A floating car travel time study will be conducted along the same corridors and during the same periods as the “Before” study was conducted. A minimum of six (6) runs in each direction will be conducted for each corridor during each peak period. The travel time runs will be collected within thirty (30) calendar days after the fine-tuning is completed.

“After” studies will be completed at two stages during the project, after fine-tuning of the initial timing in Fall 2020/Winter 2021 (1st Fine-tuning as outlined in Task 6) and after fine-tuning of timing adjustments to be completed in Fall 2021 (3rd Fine-tuning as outlined in Task 6).

The travel time data will be summarized for each corridor and include the average travel time, stops, total delay time, speed, and distance traveled. In addition, vehicle emissions will be calculated using the latest Bay Area Air Quality Management District methods and using the Synchro models. The “after” study data will be compared to the “before” study to measure the improvement in system performance.

A Final Timings and Evaluation Technical Memorandum will be prepared summarizing the comparison of the “before” versus “after” conditions and submitted to the City electronically. “After” study floating car runs and emission calculations will also be submitted to the City electronically in Excel format.

In addition, Kimley-Horn will prepare and submit a one to two-page summary brief for each corridor, highlighting the project benefits and performance measure results of the project. The summary will include a corridor description, map of the signals, project achievements, final timing plan information, a graphical summary of the “Before” and “After” performance measures, and overall benefits.

Kimley-Horn will assist the City with recommendations and timing adjustments resulting from resident concerns relating to changes made by the project for up to 2 months after the completion of fine-tuning.

B. Deliverable:

1. Final Timings and Evaluation Technical Memorandum
2. “After” travel times studies in Excel
3. Measures of Effectiveness Worksheet in Excel
4. Two-page project summary brief in PDF format for each corridor

C. Completion Time: The Consultant must complete the services and deliverable for this task in accordance with whichever one of the following time is marked:

- On or before the following date: ~~12/17/2021~~ ~~6/30/2022~~ **6/30/2023**.
- On or before ____ Business Days from _____.

Task No. 8, entitled “Supplemental Services,” is amended to read as follows:

A. Services:

When requested in writing and authorized in advance by the City Director or Director’s designee, Kimley-Horn will provide supplemental services such as additional fine-tuning or additional “Before” and “After” travel time studies. Other supplemental services may include review of turning movement counts and 24-hour hose counts for data validation and to provide graphical summaries. Kimley-Horn will provide supplemental services on a time and materials basis using the current billing rates outlined in the Master Services Agreement.

B. Deliverable:

- Additional fine tuning as specified in Task No. 6: \$250 per peak period per corridor
- Additional travel time run studies as specified in Task No. 7: \$400 per peak period per corridor
- ADT Traffic count summaries and figures: \$75 per location

C. Completion Time: The Consultant must complete the services and deliverable for this task in accordance with whichever one of the following time is marked:

- On or before the following date: ~~12/31/2021~~ ~~6/30/2022~~ **6/30/2023**.
- On or before ____ Business Days from _____.