PROFESSIONAL SERVICES
SUPPLEMENTAL AGREEMENT #1
FOR
TRAFFIC SIGNAL OPERATIONS SUPPORT

STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This Supplemental Agreement No. 1 to a contract for Professional Services is made and between the City of Pflugerville, a Texas Municipal Corporation ("City"), acting by and through its City Manager, and Kimley-Horn and Associates, Inc. ("Consultant"), both of which may be referred to herein singularly as "Party" or collectively as the "Parties."

WHEREAS, the City and Consultant executed an Agreement for Professional Services ("Agreement") on the 23rd day of May, 2024 for the Traffic Signal Operations Support project ("Project") in the amount of $48,840.00; and

WHEREAS, the City and Consultant desire to enter into a Supplemental Agreement #1 for Professional Services for the Project in the amount of $280,870.00, on the 11th day of March, 2025 to add citywide signal retiming tasks to the Agreement; and

WHEREAS, it has become necessary to amend the Agreement to modify the provisions for the Scope of Services, Work Schedule, and Compensation; and

WHEREAS, it is necessary for the City to amend its agreements from time to time to comply with changes in state law relating to contracts of municipalities.

NOW, THEREFORE, premises considered, the City and Consultant agree that said Agreement is amended as follows:

1.

Article III. Scope of Services and Exhibit A, shall be amended as set forth in the attached addendum to Exhibit A.

Article III. Work Schedule and Exhibit B, shall be amended as set forth in the attached addendum to Exhibit B.

Article IV. Compensation to Consultant and Exhibit C (Fee Schedule), shall be amended by increasing by $280,870.00 the amount payable under the Agreement for a total of $329,710.00, as shown by the attached Addendum to Exhibit C (Fee Schedule).

2.

Except as amended hereby as indicated above, the terms of the Agreement shall remain unchanged and in full force and effect.

(Signature Page to Follow)

EXECUTED and **AGREED** to as of the dates indicated below.

CITY OF PFLUGERVILLE	**KIMLEY-HORN AND ASSOCIATES, INC.**
	Sean Mason, P.E.
(Signature)	*(Signature)*
Printed Name: Sereniah Breland	Printed Name: Sean Mason, P.E.
Title: City Manager	Title: Associate
Date:	Date: 3/10/2025

APPROVED AS TO FORM:

Charles E. Zech
City Attorney
DENTON NAVARRO ROCHA BERNAL & ZECH, P.C.
Stan Springerley, Senior Associate Attorney

ADDENDUM TO EXHIBIT A
SCOPE OF SERVICES

PROJECT UNDERSTANDING

The City of Pflugerville (the "City") currently operates and maintains 46 traffic signal locations that are controller by 41 traffic signal cabinets/controllers. Kimley-Horn (the "Engineer") will assist the City with updating traffic signal timing plans for each signal.

The City wishes to optimize the traffic signal timing plans city-wide. The City has asked Kimley-Horn to develop traffic signal timing plans for each of the City's traffic signals.

RESPONSIBILITIES OF THE CITY

In conjunction with and in order for the completion of the professional services detailed below, the City of Pflugerville agrees to complete the following tasks:

- Provide access to traffic signal cabinets
- Provide access to ATMS system

SERVICES TO BE PROVIDED BY THE ENGINEER

The Engineer's Services consist of the services specifically described in Sections 1 through 8.

1. PROJECT MANAGEMENT

The Engineer will:

1.1. Perform general administrative duties associated with the Project, to include monitoring/reporting, scheduling, general correspondence, office administration, and invoicing.

1.2. The Engineer will prepare and submit monthly status updates with updated schedule and invoices to the City for review and approval. The Engineer will prepare monthly progress updates submitted with monthly invoices.

2. STANDARDS DEVELOPMENT

The Engineer will:

2.1. Develop a Signal Timing Standards document for the City to define their basic standard signal controller settings and parameters including the following:

a) Standard Phase Orientation
b) Phase timings
c) Green Time (Min, Max)
d) Yellow & Red time (including standard calculation criteria)
e) Ped timings (Walk, FDW)
f) Detection related settings (Passage, Extend, Delay)
g) Schedule
h) Standard plan numbering
i) Consistent, system-wide schedule
j) Coord parameters
k) Correction Mode
l) Max Mode
m) Force Mode

3. DATA COLLECTION AND OPERATIONAL ANALYSIS

The Engineer will:

3.1. Collect traffic count data through a subconsultant
- Turning movement counts for AM, MD, and PM peak periods at each project intersection
- Up to 10 24-hr tube counts at various locations across the City along major corridors

3.2. Coordinate with the City to collect current traffic signal timing data
3.3. Conduct field observations to verify current operations
3.4. Develop a Synchro traffic simulation model for each timing plan developed
3.5. Conduct a capacity analysis for each signalized intersection
3.6. Conduct an operational analysis for the existing conditions at each signalized intersection to identify potential improvements to signal phasing, laneage, operation, etc.

4. TIMING PLAN DEVELOPMENT

The Engineer will:

4.1. Develop up to five (5) traffic signal timing plans (AM, MD, PM, Weekend, Overnight) for each traffic signal and up to two (2) school plans where warranted.
- These timing plans may be coordinated or uncoordinated (free) plans based on traffic demand, system interaction with adjacent signals, and engineering judgement.
- The City will review proposed cycle lengths for each plan

4.2. Determine phase timings for each intersection including:
- Minimum green
- Maximum green (where applicable)
- Yellow
- All Red
- Walk
- Flashing Don't Walk

4.3. Develop coordination timings and parameters (where applicable)

4.4. Develop the time of day (TOD) and Day of Week (DOW) schedule based on traffic demand and engineering judgement

5. DATABASE PROGRAMMING AND TESTING

The Engineer will:

5.1. Program and test signal databases using virtual test controller

5.2. Test updated timing plans for proper operation prior to implementation

5.3. Download database to signal controllers in the field via either the ATMS or local USB

6. SIGNAL TIMING IMPLEMENTATION

The Engineer will:

6.1. Install new timings and proposed database in each traffic signal controller

6.2. Conduct up to 3 days of fine-tuning activities in the field per coordinated corridor consisting of
- Optimizing timings and parameters to real world conditions by driving the corridor and observing during each peak period
- Adjusting phase timings, splits, and offsets based on demand
- Adjusting TOD schedules

6.3. Document finalized timing plans on timing sheets placed in each signal cabinet

6.4. Save finalized timing plans to USB for City backup data retention

7. PERFORMANCE ANALYSIS

The Engineer will:

7.1. Use INRIX Roadway Analytics data available from TxDOT to measure the effectiveness of the retiming effort by quantifying delay savings

7.2. Use the City's ATMS system to analyze Signal Performance Measures (SPMs) where available to evaluate operational improvements

7.3. Quantify benefits of signal retiming and delay savings using TxDOT estimated roadway user costs and modeled environmental impacts

8. REPORT

The Engineer will:

8.1. Provide a project summary report describing the project and highlighting project benefits for the City to share with Council and the Public

8.2. Provide background data and calculations used to support the one-page report.

ADDITIONAL SERVICES

The following services are not included in this Agreement at present and are specifically considered to be additional services:

a. Plans Specifications, & Estimate services
b. ITS Device Configuration

ATTACHMENT B: WORK SCHEDULE

Project Name: Pflugerville Citywide Signal Retiming
Project Description: Traffic Signal Retiming: 2 Phases
Prepared By: Kimley-Horn

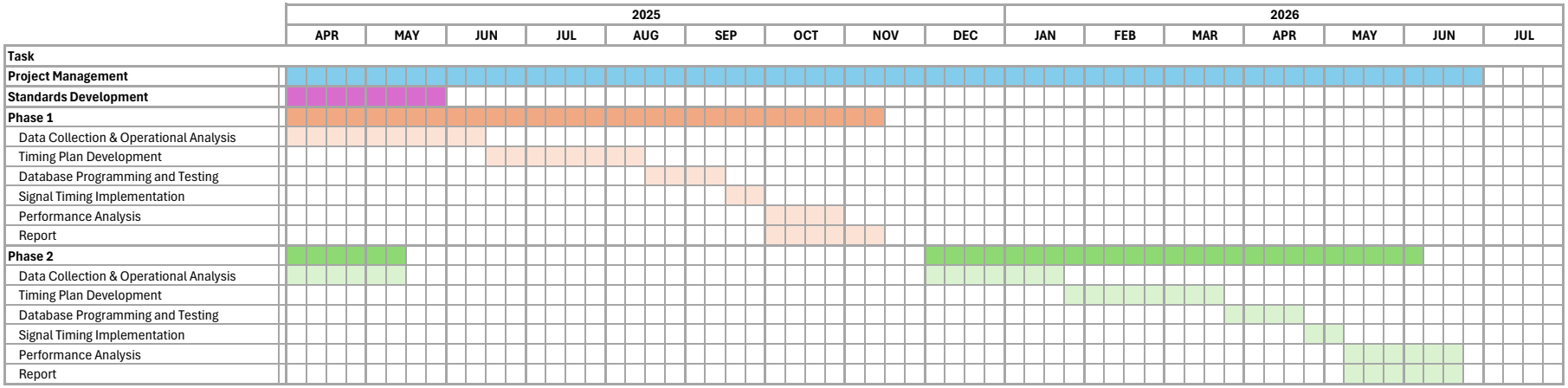

EXHIBIT C
FEE SUMMARY FOR PROFESSIONAL SERVICES

Project Name: Traffic Signal Ops Support PSSA #1 - Citywide Signal Retiming
Prepared By: Kimley-Horn

Task # Subtask Number	Task Name Subtask Name/Description	Assumptions	Direct Labor (Person-Hours)							Misc. Direct Expense ($)
			Senior Prof II	Senior Prof I	Prof	Analyst	Admin	Labor Total (hours)		
			$360.00	300.00	255.00	205.00	$110.00			
1	**PROJECT MANAGEMENT**									
1.1	Project Management and Invoicing		4	8		10	24	46		
1.2	General Administration and Schedule Maintenance		4	8		10	24	46		
	Task Total (Hours)		8	16	0	20	48	92		
	Task Total (Dollars)		$2,880	$4,800	$0	$4,100	$5,280	**$17,060**		**$0**
2	**STANDARDS DEVELOPMENT**									
2.1	Develop signal timing standards		2	4		8		14		
	Task Total (Hours)		2	4	0	8	0	$14		
	Task Total (Dollars)		$720	$1,200	$0	$1,640	$0	**$3,560**		**$0**
3	**DATA COLLECTION AND OPERATIONAL ANALYSIS**									
3.1	Procure traffic counts			1	2	8		11		$45,000
3.2	Collect current signal timings				4	24		28		
3.3	Field observations			4	8	16		28		
3.4	Develop Sycnhro model of existing timings			1	4	40		45		
3.5	Conduct capacity analysis			1	4	25		30		
3.6	Conduct operational analysis of existing timings			1	4	25		30		
	Task Total (Hours)		0	8	26	138	0	172		
	Task Total (Dollars)		$0	$2,400	$6,630	$28,290	$0	**$37,320**		**$45,000**
4	**TIMING PLAN DEVELOPMENT**									
4.1	Determine traffic signal timing plans for development		2	2	4	15		23		
4.2	Develop phase timings			2	4	24		30		
4.3	Develop coordination timings		2	2	4	60		68		
4.4	Develop schedule		1	2	4	20		27		
	Task Total (Hours)		5	8	16	119	0	148		
	Task Total (Dollars)		$1,800	$2,880	$5,760	$42,840	$0	**$53,280**		**$0**
5	**DATABASE PROGRAMMING AND TESTING**									
5.1	Program databases		1	2		10		13		
5.2	Test databases		1	2		10		13		
5.3	Transfer to field controllers		1	2		10		13		
	Task Total (Hours)		3	6	0	30	0	39		
	Task Total (Dollars)		$1,080	$2,160	$0	$10,800	$0	**$14,040**		**$0**
6	**SIGNAL TIMING IMPLEMENTATION**									
6.1	Install new timings			4	4	8		16		
6.2	Field fine tuning		16	20	40	80		156		
6.3	Document finalized timing			2	4	8		14		
6.4	Transfer timings to City backup data retention			2	4	8		14		
	Task Total (Hours)		16	28	52	104	0	200		
	Task Total (Dollars)		$5,760	$10,080	$18,720	$37,440	$0	**$72,000**		**$0**
7	**PERFORMANCE ANALYSIS**									
7.1	Analyse MOEs via INRIX			2	4	16		22		
7.2	Analyze SPMs			2	4	24		30		
7.3	Quantify benefits			2	4	12		18		
	Task Total (Hours)		0	6	12	52	0	70		
	Task Total (Dollars)		$0	$2,160	$4,320	$18,720	$0	**$25,200**		**$0**
8	**REPORT**									
8.1	Final Summary			2		4	24	30		
8.2	Supporting documentation			2		4		6		
	Task Total (Hours)		0	4	0	8	24	36		
	Task Total (Dollars)		$0	$1,440	$0	$2,880	$8,640	**$12,960**		**$0**
	Reimbursable Expenses									
	Lodging									$0
	Meals									$0
	Mileage	0.625/MILE @ (60 miles * 12 trips)								$450
	Expense Total (Dollars)									**$45,450**
	KIMLEY-HORN TOTAL (Hours)		34	80	106	479	72	771		
	KIMLEY-HORN TOTAL (Dollars)		$12,240	$27,120	$35,430	$146,710	$13,920	**$235,420**		
	REIUMBURSABLE EXPENSES (KH)							**$45,450**		
	GRAND TOTAL							**$280,870**		