November 6, 2023
Revised April 17, 2024
Revised May 20, 2024

Ms. Sarita Shamah,
Senior Project Manager
City of Hollywood CRA
Hollywood, FL 33022-9045

RE: ***SR A1A Traffic Signal Upgrade Plans from Hallandale Beach Boulevard to Hollywood Boulevard***
City of Hollywood, Florida

Dear Ms. Shamah:

Kimley-Horn and Associates, Inc. ("Kimley-Horn" or "the Consultant") is pleased to submit the Agreement for professional signal engineering design services related to the SR A1A streetscape plans between Hallandale Beach Boulevard and Hollywood Boulevard. Our project background, scope of services and fees are described below.

Project Background

The City of Hollywood/CRA had an agreement with FDOT to provide Complete Street design for the SR A1A corridor from Hallandale Beach Boulevard and Hollywood Boulevard. Additionally, the City desires to underground the existing overhead electric lines and to provide landscape, hardscape, irrigation, and decorative streetlighting. The CRA wishes to include the upgrade of pedestrian and traffic signals at 5 locations within the corridor to improve safety. FDOT will require a construction agreement for work within the right of way. In order to implement this work, the CRA will engage the Consultant to provide engineering design and construction plans and permitting for the five signal-controlled intersections. These signal upgrades will be included in the construction manager at risk (CMAR) contract who has been selected to construct this project. Broward County easements may be required for placement of traffic signal equipment. Any such easements shall be provided by the City/CRA.

Project Area

The proposed signal locations include:

Crossing just north of SR 858 (Near 7 Eleven)
Crossing near Sea Air Towers
Crossing near The Residences on Hollywood Beach
Signal at Iris Terrace
Signal at Crocus Terrace

Project Assumptions

For the proposal:

1. The scope is to develop final design plans and permitted signal construction drawings for the

CMAR use.
2. Additional survey is not anticipated but any required survey or preparation of easement legals sketches and descriptions will be provided by Client.
3. Signal permitting will include FDOT and Broward County.
4. Any required pavement marking changes will be shown on the roadway's pavement marking plans that are currently under design and will be reflected on the signal plans.
5. Any agreement amendments between City and FDOT will be provided by the City/CRA.
6. It is assumed that the signal design will be similar to the approved signal plan at Garfield Street and SR A1A.
7. Broward County Traffic Engineering will require wireless signal connectivity.
8. All five signals will be designed and permitted at the same time as one package.

Scope of Services

Task 1 – Traffic Signal Engineering Design and Plans

Kimley-Horn will prepare signal engineering design and construction plans for the five locations shown above.

Signal Design (Tasks below will be performed for each signal)

Task 1.1 – Pre-Application Coordination

Kimley-Horn will review site conditions and share exhibits at pre-application meetings with the Broward County Traffic Engineering Division and the Florida Department of Transportation (FDOT) to discuss the proposed signalization. The preliminary signal design requirements and layout will be discussed.

Task 1.2 – Base Mapping, SPM

The plans shall include lane widths, edges of pavement, right-of-way, signing, pavement markings, evident above-ground utilities, sidewalks, and minor topography at all corners of each intersection. Kimley-Horn will review the intersection in the field using the base map plot as a reference.

Task 1.3 –60% Signal Plans Preparation

Kimley-Horn will develop a Conceptual Signal Plan for the proposed signal upgrades at the subject intersections to be submitted for the 60% review stage. The Conceptual Signal Plan will indicate the location of proposed signal pole and mast arm, controller, mast arm orientation, signal head placement, pedestrian signal heads and pushbuttons, and electrical service, and crosswalks and curb ramp locations. Kimley-Horn will coordinate with Broward County Traffic Engineering Division to determine the location of the signal hardware.

Kimley-Horn will submit the 60% Signal Plan to Broward County Traffic Engineering Division and FDOT and attend one plan review meeting with county staff. Kimley-Horn will coordinate with county, FDOT staff and the Client to address comments on the preliminary design and then prepare the signalization construction documents.

Kimley-Horn will obtain soft-dig test holes and geotechnical borings at the proposed mast arm locations during this phase.

Kimley»Horn

Task 1.4 – 90% Signal Plans Preparation

Kimley-Horn will prepare a set of traffic signal design plans and furnish a Signal Plans Package in accordance with the current appropriate Broward County Traffic Engineering Division and FDOT traffic signal plans preparation standards. The Signal Plans Package will be prepared for the 90% review stage, including proposed conduit layout, pay items, general notes, key sheet, detector schedules, traffic signal head legend, the preliminary mast arm structural calculation plan sheets for the new pole/mast-arm, and previously incorporated comments.

The Signal Plan Package will be submitted to Broward County Traffic Engineering Division and FDOT for their review and comment. Kimley-Horn will coordinate with the Client regarding any comments received from the County and then proceed to address comments and begin preparation of the Final Signal Plans Package.

Task 1.5 –Mast Arm Structural Calculations

The mast arm structural calculations require relative spot elevations at the pole location and at the crown of the roadway beneath each mast arm overhang. The elevations at the subject intersection have already been obtained during the current streetscape project.

Kimley-Horn will review the soil boring data and spot elevations and perform tow design of the mast arm structure at the subject intersection (including mast arm, upright and arm-upright connections, base plate, anchor bolts, and foundation) based on Kimley-Horn's signal design.

The mast arm design plan sheets and calculations will be developed in accordance with FDOT design requirements. Based on the location and geometry of the existing intersections and proposed improvements, Kimley-Horn anticipates that mast arm calculations will be developed for either single or double arm traffic signal assembly at each intersection. If conditions require a non-standard foundation design it will be covered under optional services Task 6.

Task 1.6 – Submit Final Signal Plans

Kimley-Horn will prepare the Final Signal Plans incorporating 90% comments from Broward County Traffic Engineering Division and FDOT.

Final plans submittal will be provided to Broward County Traffic Engineering Division and FDOT. Any hard copies will be 11 inch x 17 inch plan sets.

Task 1.7 – Permitting for Signals (FDOT and Broward County)

Kimley-Horn will prepare and submit 100% construction drawings and permit applications pertaining to the design of the proposed signals to Broward County Traffic Engineering Division. Kimley-Horn will submit a construction agreement application through FDOT's One Stop Permitting website. FDOT will require a maintenance memorandum signed by the City. The City/CRA shall process and coordinate agreements between them and the jurisdictional agencies.

Task 1.8 – Utility Coordination and Electrical Services

Kimley-Horn will prepare and submit plans to known utility owners along the corridor to mark / confirm their existing and proposed utilities. Potential conflict locations with utilities and drainage will be investigated. A meeting will be conducted with utility owners to develop consensus for conflict

resolution. Any proposed utility relocation will be done by utility owners. Kimley-Horn will coordinate with utility owners to request utility clearance documentation as required by FDOT.

Task 2 – Coordination with Agencies

Kimley-Horn will attend meetings and join conferences with Client and agencies to facilitate coordination and expedite permitting. This may include coordination of required easements or other documentations to be prepared and provided by the City/CRA. It will also include coordination with CMAR during the permitting process to provide them with updates to help them develop their cost estimates.

Task 3 – Subsurface Utility Exploration (SUE)

Kimley-Horn will contract with a subconsultant to provide subsurface utility exploration services to identify location of existing underground utilities relative to the proposed mast arm pole foundations. This work will commence after the Client and agencies provide their comments on the design and pole locations are accepted. If after this effort is expended and Client or agencies request changes to pole locations that require additional SUE effort, it will be handled under additional services and negotiated at that time. The scope of this exploration is limited to the approved budgeted amount of the contract.

Task 4 – Geotechnical Services

Kimley-Horn will contract with a subconsultant to provide geotechnical services for the proposed mast arm signals as required by FDOT. This will include a maximum of 2 standard penetration test per intersection for a total of ten. The City and other utility owners shall mark the location of their facilities to avoid conflicts with the geotechnical drilling. ***This task's fee will be under the original project.***

Task 5 – Construction Phase Services

Kimley-Horn will perform periodic field review during construction of the signals to provide Broward County and FDOT with required documentation.

Optional Services

The following optional services will be provided by subconsultants.

Task 6 – Special Structural Design

Kimley-Horn will perform structural engineering special design for the mast arms if existing conditions dictate. This may be an eccentric footing or pile supported foundation to work around existing utilities. Effort includes allowance for one eccentric and one pile supported foundation analysis at each intersection.

Additional Services

Any services not specifically identified in the scope of services will be provided as additional services. The following services are not anticipated at this time nor included in the contract, but maybe provided as additional services if needed.

- Design survey services
- Drainage modifications
- Additional traffic analysis
- Additional meetings and or public presentations

- Complete corridor ITS and communication design plans
- Relocation design for City utilities

Information Provided By Client

We shall be entitled to rely on the completeness and accuracy of all information provided by the Client or the Client's consultants or representatives.

1. Easement dedications
2. Signed Maintenance Memorandum of Agreement

Fee and Billing

Provision of Work

The Consultant will perform the services described below on an hourly not to exceed basis.

Fees:		
Task #	Description	Fee
1.1	Pre-App Coordination	$7,120
1.2	Base Mapping, SPM	$13,000
1.3	60% Signal Plans	$41, 600
1.4	90% Signal Plans	$26,620
1.5	Structural Design (standard)	$16,600
1.6	Final Plans	$20,760
1.7	Permitting (FDOT and County)	$23,142
1.8	Utility Coordination and Electrical Services	$11, 436
	TASK 1 SUBTOTAL	**$160,278**
2	Coordination with Agencies	$12,404
3	Utility Locate Services (SUE)	$44,110
4	*Geotechnical Services (to be performed under the original project) $61,820*	*Under original project*
5	Construction Phase Services	$35,788
	Subtotal Design and Construction Phase Fee	**$252,580**

Optional Services Fees:		
Task #	Description	Fee
6	Special Structural Mast Arm Design (5 assemblies, 1 per intersection)	$22,540
	Subtotal Optional Services	**$22,540**
	Subtotal Fee	$276,552
	Direct Expenses	$13,756
	TOTAL FEE (without Geotech)	**$288,876**