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ATTACHMENT 1
ATKINS

Member of the SNC-Lavalin Group

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October 22, 2019

Revised November 21, 2019

Ms. Azita Behmardi
City Engineer
City of Hollywood
Department of Development Services
P.O. Box 229045
Hollywood, FL 33022-9045

Re: *Restoration of Surf Road at Balboa Street*
Proposal for Professional Engineering Consulting Services

Dear Ms. Behmardi:

In accordance with our Professional Services Agreement dated February 13, 2019 (Contract DS18-014), Atkins NA, Inc., (hereinafter referred to as "Consultant", "We" or "Atkins"), is pleased to submit this proposal for professional consulting services to the City of Hollywood, (hereinafter referred to as "Client" or "City") to perform engineering services associated with the above referenced project.

PROJECT UNDERSTANDING

Background: High tides have eroded/washed out the pavement and subgrade at the intersection of Surf Road and Balboa Street in the City of Hollywood. The City has performed limited activities to minimize further erosion (sand bags, rip-rap) and has 'closed' the road to traffic. The City's ultimate desire is to improve the situation as quickly as possible and to minimize future similar occurrences.

Services are required for the engineering design and permitting of construction documents for a portion of Surf Road at Balboa Street where a portion of the road has eroded due to the influence of high tides over time. The project will involve restoring portions of the road base and subbase, providing new asphalt, minor regrading of the roadway profile as well as hardening of the surrounding area with either a cantilevered retaining wall or vegetated sand dune to help protect the road where exposed to the natural elements. The work will include government agency approvals, coordinating with utility providers for adjustments and or relocations, preparing detailed quantity calculations, engineers estimates of probable costs and Construction Phase Services as an optional service.

We have outlined below the scope of services for the proposed improvements that will be included in the project.

SCOPE OF SERVICES

Task 1 – Project Management

Consultant shall coordinate its services with the Client and other design professionals throughout the development of the Construction Documents. The purpose for the coordination is to inform the Client and implement the input of the design professional team regarding the improvements. This coordination shall be limited to phone/conference calls and e-mails; weekly Skype calls are anticipated. Also included in this Task is a pre-design project kick-off meeting. The intent of the kick-off meeting is to coordinate the elements of the project and outline the project schedule. In addition, Consultant shall provide Client with timely invoicing and reporting of

the project's progress.

Task 2 – Specific Purpose Survey

The following tasks will be performed:

1. Research legal status of the Project Area, i.e., plats, Erosion Control Line, Coastal Construction Line, Shoreline monumentation by the State and other matters of Record on file with the State, County and City.
2. Recover or set horizontal and vertical control to the extent necessary to meet the project objective.
3. Establish primary and secondary horizontal and vertical control to the extent necessary to meet the project objective.
4. Establish a paper survey baseline, preferably coincident with the centerline of the platted Right of Way if ground conditions permit.
5. Perform full topographic survey for the project area. This will include all above ground utility fixtures, hardscape surfacing, buildings, signage, traffic striping and other visible surface improvements.
6. Acquire elevations for the project area, including natural and hardscape surfaces, rim and invert elevations of drainage structures and sanitary sewer manholes as may be encountered. Cross-Section elevations and topography will be acquired at 50-foot intervals ranging from the Erosion Control Line on the East to the Easterly Right of Way line of North Surf Road to the West.
7. Trees with a caliper of 4 inches or more within the Project Area will be located, but still not be identified by common or scientific names.
8. Deliverables will consist two certified copies of the topographic survey map and report, plus electronic files in DWG format.

QUALIFICATIONS:

- **Rule of Law:** This Survey will be certified to parties specified by the client and shall be in compliance with the "Standards of Practice for Land Surveying in the State of Florida," pursuant to Rule 5J-17 of the Florida Administrative Code. *The Surveyor will make every effort to comply with the requirements set forth by the client, but where requirements by others conflict with the Florida Administrative Code, the Rule of Law shall prevail.*
- **Survey control:** Horizontal control will be referenced to NAD83/2011 Adjustment and vertical control referenced to NAVD88.
- **Boundary Survey, Caution and Exclusion:** A boundary survey may be required for a specific site at some point in the future. This proposal does not include such a boundary survey or Mean High Water Survey.
- **Subsurface Utilities (SUE):** Underground utilities will not be located and mapped as part of the Survey element as cited in the Proposed Scope of Services.
- **Limitations of the Erosion Control Line:** The Erosion Control Line as established and recorded Miscellaneous Plat Book 5 at Page 7 is most likely inundated and to that point, we will carry the cross-sections as close to the water's edge as possible.

Task 3 – Geotechnical Exploration

Our subconsultant proposes to perform one (1) Standard Penetration Test (SPT) boring to a depth of 10 feet below existing grade for the roadway and one (1) SPT boring to a depth of 50 feet below existing grade for the proposed sheet pile wall. An asphalt core will be obtained from the SPT boring locations. Within the boring, penetration resistance testing will be performed in general accordance with the requirements of ASTM designation D 1586. Geotechnical recommendations for asphalt, base and subgrade support of the roadway will be provided as part of the services, along with soils information for sheet pile wall design and installation. Prior to drilling at the project site, subconsultant will notify the local utility companies and request that underground utilities be marked.

Upon completion of the field exploration, some laboratory testing and visual classifications will be performed on selected samples. The results of all drilling and laboratory testing will be evaluated by a geotechnical engineer. A report will be issued that contains the field exploration data, subsurface conditions and groundwater depth.

Task 4 – Environmental Investigation

Atkins field biologists will conduct a field assessment to document the existing conditions of the berm and dry sand beach areas in the vicinity of Surf Road and Balboa Street where the road washout occurred. The assessment area will extend approximately 100 feet north and south of the impacted road, from the sea walls to the west to the edge of water to the east.

The purpose of the assessment will be to document the presence/absence of any environmental conditions that may require avoidance or permitting, if avoidance is not possible, during the design and construction of the anticipated road repairs. The field biologists will assess the area for ecological features such as marked marine sea turtle nests, mangrove shoreline or other protected trees, and coastal dunes.

With the aid of a hand-held GPS unit, any features observed will be recorded and mapped in GIS so their locations in relation to the proposed road repair work can be determined. The map and a letter environmental constraints report summarizing the findings of the field assessment will be provided.

Task 5 – Coastal Analysis

Given the location and history of the site, a coastal analysis is required to review the available data, evaluate the relevant physical processes, and develop conceptual solution alternatives to mitigate future erosion. As part of this effort, Consultant shall provide the following services as indicated below.

- Perform site visit. A professionally licensed coastal engineer will perform a site visit in order to become familiar with the existing conditions and erosion concerns at the site.
- Review available tide data and information on historical flood events at the site. Results of this data review will help inform the design parameters associated with the conceptual design.
- Evaluate and compare potential conceptual design alternatives using data and information obtained within this scope of services proposal to identify potential solutions to mitigate future erosion of the road. Two conceptual solutions will be evaluated and compared: a structural solution (e.g., seawall) and a non-structural solution (e.g., vegetated dune). The two alternatives will be compared based on relative design and construction costs, anticipated ease of permitting, and feedback from Client and regulatory agencies.
- Draft a Technical Memorandum. A memo will be produced that summarizes the results of the coastal analysis and provides a recommendation for City's consideration in development of final Construction Drawings by Consultant for the project.

Note that it is assumed for this project that the coastal conditions design scenario is based on astronomic tide conditions rather than storm surge and waves associated with a storm event. As such, a detailed wave analysis and numerical modeling effort is not proposed for this phase of the project. Should coordination with the regulatory review agencies indicate that a detailed wave analysis and numerical modeling is required for permitting, then it shall be provided as an Additional Service.

Task 6 – 50% Concept Designs and Pre-Permitting Consultations with Regulatory Agencies

The Consultant shall develop 50% Concept Designs for the project to include a structural solution (e.g., sheet pile wall) to prevent future erosion damage and a non-structural solution (e.g., vegetated dune). Pre-permit consultations with regulatory agencies will be conducted to inform our approach to the problem. The Contract Documents will be prepared in accordance with Broward County Minimum Standards, FDOT Design Standards, FDOT Standard Specifications for Road and Bridge Construction (latest edition), the Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Florida Green Book), the City of Hollywood Design Standards and Supplemental or Technical Specifications that have been developed by FDOT for specific products or procedures not listed in the Standard Specifications.

Construction documents will be prepared on 22" x 34" page format.

Information gained from the Regulatory Agency Pre-permit Consultations will be gathered and used to guide the 50% design decisions

The 50% Concept Designs will show the geometric layout over top of the survey and may include the following:

- Paving, grading and drainage improvements of roadway and portions of walkways
- Typical Sections and construction details
- Signing and Pavement Marking plans and details
- Coordination with existing utility providers
- Boring test hole locations
- Structural Plan, sections and details
- Dune Plan, sections and details

An electronic copy of the 50% Concept Design plans will be forwarded to each utility company known to operate in the vicinity of the project. Each utility company will be requested to return redline mark ups identifying the horizontal and vertical location of their facilities to the Consultant. The Consultant will log in each set of plans when returned by the utility companies. This information will be added to the plans. We will attend up to two (2) meetings with City staff and the utility companies to review the project and potential impacts to the utility owners.

Included in this task, the Consultant shall prepare a preliminary Bid Form with quantities and pay items as well as an Opinion of Probable Cost for the project for the City's review. In addition, specifications for the project will be provided on the plans. If Construction Specification Institute (CSI) Format specifications are requested, they will be provided as an Additional Service.

An electronic copy of the 50% Concept Designs will be submitted to the Client for review and for further distribution to the City and the City's appropriate departments for review. After sufficient review time, a meeting will be scheduled with City staff to review the 50% Concept Designs. The purpose of the meeting will be to review the comments, discuss revisions and design decisions associated with the documents, concluding the meeting with an approved 50% Concept Design set of Documents. Consultant will address the 50% Concept Design comments and revise the plans as part of development of the 100% Construction Documents for the project. Any significant redesign will be provided as an additional service.

Task 7 – Government Agency Submittals

Consultant will assist the client with the submittal of the permit applications and supporting documentation for the project to the following agencies:

- South Florida Water Management District (SFWMD)
- Broward County Environmental Protection Department (BCEPD)
- City of Hollywood
- Broward County Traffic Engineering Division (BCTED)
- Florida Department of Environmental Protection (FDEP)
- US Army Corp of Engineers if applicable (USACOE)
- Any other recognized State, Local or Federal Agency having jurisdiction over the project

All permit fees will be paid directly by the client and are not included in the lump sum fees. Any significant plan revisions caused by changing agency criteria after our initial design is reviewed with each appropriate agency and similar factors outside the Consultant's control, additional meetings or coordination will be considered as Additional Services. Consultant will respond to as many as two (2) rounds of reasonable requests for additional information from each agency. Any comments received beyond that, shall be provided as an Additional Service.

Task 8 – (100%) Construction Documents

Based upon the approved 50% Concept Designs, the Consultant will proceed with 100% Construction Documents for the project. These documents will further refine and articulate the project elements established in the 50% Concept Design Phase for the preferred option only. Specifically, Consultant will finalize either the structural or non-structural option at the direction of the Client.

As part of this task, Consultant shall update the bid form, quantities and Opinion of Probable Costs to final for the project.

An electronic copy of the 100% Construction Documents will be submitted to the Client for review and for further distribution to the City and the City's appropriate departments for review. After sufficient review time, a meeting will be scheduled with City staff to review the 100% Construction Documents. The purpose of the meeting will be to review the comments, discuss revisions and design decisions associated with the documents and revise the Construction Documents if required as many as one time to make suitable for bidding and construction of the design elements of the project as detailed in this scope of services.

Final Deliverables for this task will include:

Three (3) sets full-size 22" x 34" Final construction documents (signed/sealed)

Ten (10) sets half-size 11" x 17" Final construction documents (signed/sealed)

Electronic (pdf) file of full-size Final construction documents

Electronic (pdf) file of half-size Final construction documents

AutoCAD electronic files of Final construction documents

Bid Form (MS Word) format

Engineer's Opinion of Probable Construction Costs (MS Word) format

Task 9 – Bidding Assistance

Consultant shall consult with and advise the City and act as its representative for the improvements during the bidding process. This task is limited to attending one (1) pre-bid meeting and bid opening as well as issuance of one (1) addendum in response to contractor questions. Once bids are received, Consultant shall review the bids, check the references of the apparent lowest bidder for responsiveness and responsibility and prepare a bid tabulation sheet with recommendation for award to Commission.

Task 10 – Reimbursable Expenses during Design, Permitting and Bidding

Direct reimbursable expenses such as express delivery services, travel, outside reproduction and duplication during design, permitting and bidding are included in this task. The fee for this task is meant to be an allowance. Backup documentation will be submitted with each invoice. The Client will be notified if additional fee is required to accommodate additional expenses above and beyond the fee specified in this task.

OPTIONAL HOURLY SERVICES

Task 11 – Construction Phase Services

During the construction phase of the proposed site-civil improvements, Consultant will provide the following services to the Client:

- 1) Attend one (1) pre-construction conference with Owners staff, the Client and the selected contractor.
- 2) Review and make recommendations with respect to shop drawing submittals from the contractor. Shop drawings to be submitted by the contractor and reviewed by Consultant will be specified on the contract documents. Additional shop drawing submittals not specified by Consultant will be reviewed, if requested, as an additional service. Shop drawings will be reviewed for conformance with the Contract Documents.
- 3) Visit the site periodically to observe the progress of construction and its conformance with the contract documents. Consultant will provide a copy of the field visit reports with each monthly invoice. The frequency of site visits will be as considered appropriate by Consultant to provide the required Engineer's certifications at the completion of the work. It is assumed that the duration of construction of site-civil improvements should not take longer than five (5) months. During those 5 months, Consultant will visit the site up to two times per month, not to exceed 4 hours per visit (including travel time and field reports), not to exceed a combined total of 10 visits or a total of 40 hours.
- 4) Consultant shall attend bi-weekly construction meetings, if requested by the Client.
- 5) Respond to Requests for Information (RFI) by the Contractor: Consultant will provide interpretations (up to twenty engineering person hours) of the plans and specifications developed in Tasks listed above and provide responses to the requests for information from the contractor during construction. Consultant will advise the Client if a response to the RFI cannot be made based on a reasonable interpretation of the plans and specifications.
- 6) At substantial completion, attend site visit with Client and contractor in order to prepare a "punch-list" of site-civil improvements that are incomplete, defective, or not in compliance with the approved plans and specifications.
- 7) Once punch-list items are addressed by the contractor, attend subsequent (and final) site visit to confirm that corrective measures have been successfully completed.
- 8) Review the required close-out documents (certifications, test results, as-builts, and other closeout documents specified in the contract documents) from the contractor.
- 9) Provide Engineer's certification of completion for site-civil improvements as required by Owner and/or regulatory agencies in order to close-out permits.

Task 12 – Reimbursable Expenses during Construction

Direct reimbursable expenses such as express delivery services, travel, outside reproduction and duplication during construction are included in this task. The fee for this task is meant to be an allowance. Backup documentation will be submitted with each invoice. The Client will be notified if additional fee is required to accommodate additional expenses above and beyond the fee specified in this task.

ASSUMPTIONS

- No net increase in impervious area anticipated resulting in no increases to stormwater runoff.
- Water quality improvements not required.
- No limits to storm water runoff for project.
- Conceptual design for coastal protection is to be based on tide conditions, as opposed to storm event conditions.
- Plans will be provided electronically to the City (no mass reproduction), in the City's desired format.
- The City will provide reviews of submittals within a two-week period.

INFORMATION TO BE PROVIDED BY OWNER

- Utility as-builts, City to provide to Consultant for inclusion into conceptual analysis
- Original design plans – City to provide if any are available
- City of Hollywood access parameters: at this time, the City has advised that as a minimum, pedestrian access will need to be retained. Other access needs will be identified by the City.
- Other relevant development plans in the areas (City to provide)

ADDITIONAL SERVICES

The following items represent additional services that can be accommodated with supplemental fees. These services may include such items as the following:

- Subsurface Utility Engineering
- Materials testing, i.e. density, pressure, bacteriological, etc...
- Destructive testing
- Preparation of additional Plans, Specifications, and Contract Documents for the improvements
- Preparation of easements and right of way acquisition sketches or descriptions.
- Title work
- Additional site reconnaissance
- Maintenance of traffic plans
- Mechanical and Electrical engineering
- Construction Phase Services (see Optional Services above)
- Public Involvement

SCHEDULE

We will provide our services in an expeditious and orderly manner to meet the **formal written schedule** mutually agreed to by the Client and the Consultant for the various elements of the project.

COMPENSATION

We will provide the services described in Tasks 1- 9 for a lump sum labor amount of **\$123,140** as outlined below. An estimate of expenses during design, permitting and bidding for the project is included in Task 10 Reimbursables in the amount of **\$1,000** and are in addition to the labor amount.

Fees and expenses will be invoiced monthly based, as applicable, upon the percentage of services completed and expenses incurred as of the invoice date. Payment will be due within 30 days of your

receipt of the invoice.

Task	Basic Services	Atkins	Subconsultant	Expenses (Initial Allowance)	Total
1	Project Management	\$3,550			
2	Specific Purpose Survey	\$8,750			
3	Geotechnical Exploration		\$5,715		
4	Environmental Investigation	\$2,900			
5	Coastal Analysis	\$12,150			
6	50% Concept Designs/Pre-Permitting Consultations w/Regulatory Agencies	\$33,950			
7	Government Agency Submittals	\$24,200			
8	100% Construction Documents	\$28,450			
9	Bidding Assistance	\$3,475			
10	Reimbursable Expenses			\$1,000	
	Labor Totals	\$117,425	\$5,715	\$1,000	\$124,140

Optional Hourly Services

The following task shall be performed on an hourly basis, not to exceed (N.T.E.) amount unless unforeseen circumstances occur. An estimate of expenses during construction for the project is included in Task 12 Reimbursables in the amount of **\$3,000** and are in addition to the hourly amount.

Task	Optional Hourly Service	Atkins	Subconsultant	Expenses (Initial Allowance)	Total
11	Construction Phase Services	\$30,000			
12	Reimbursable Expenses			\$3,000	
	Labor Totals	\$30,000	N/A	\$3,000	\$33,000

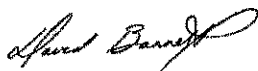
CLOSURE

If you concur in the foregoing and wish to direct Consultant to proceed with the aforementioned services, please execute the enclosed copy of this letter agreement in the space provided and return the same to the undersigned. Fees and times stated in this agreement are valid for sixty (60) days after the date of agreement by the Consultant.

We appreciate this opportunity to submit this proposal. Please contact David Barnett, P.E. at 954-903-3615 if you have any questions.

Sincerely,

Atkins NA, Inc.



David Barnett, P.E.
Project Director

CITY OF HOLLYWOOD
A Municipality

Agreed to this _____ day of _____, 2019

By: _____

(Print or Type Name)

Title: _____
(As Authorized by Law)

(Email Address)

_____, Witness

(Print or Type Name)

Official Seal:

Copy To: Ruben Hernandez/David Bannett/File