CITY OF WEST DES MOINES
CITY COUNCIL MEETING COMMUNICATION

DATE: December 2, 2019

ITEM:

Resolution - Approving Professional Services Agreement
Raccoon River Pedestrian Bridge at Raccoon River Park

FINANCIAL IMPACT:

The cost of the Professional Services Agreement associated with the design of this project is anticipated not to exceed $564,000.00 for Basic Services. In addition, the cost for performing Resident Consultant Services will not exceed $354,000.00. Should the cost for the professional services be projected to exceed the amounts set forth in the contract, staff would not authorize such expenditures without further approval by the City Council. All work will be billed on an hourly basis using the established hourly fee structure as set forth in the contract. All costs for these services can be paid from account no. 500.000.000.5250.495 with the ultimate funding intended to come from Local Option Sales Tax. Funding in the amount of $345,000 was made available in the FY 19-20 CIP budget with an additional $345,000 in funding being requested in the FY 20-21 CIP budget to cover design and permitting tasks for the project. Additional funding will be requested in future CIP budget cycles to cover the construction and Resident Consultant Services for the Raccoon River Pedestrian Bridge.

BACKGROUND:

Approval of this action authorizes Shive-Hattery, Inc. to perform the professional services necessary for the construction of a new pedestrian bridge over the Raccoon River connecting the Raccoon River Park area to the Walnut Woods State Park area. This is one of the Five Waters projects identified as part of the Local Option Sales Tax campaign. The project will also include modifications to the existing multi-use trail within the Raccoon River Park as well as an extension of multi-use trail on the south side of the Raccoon River to connect to SE Walnut Woods Drive and/or Walnut Woods State Park. Shive-Hattery previously completed a Feasibility Study for the City of West Des Moines on February 16, 2018. Preliminary design and all permit-related tasks are projected to be complete by Summer 2020 with final design and permit approvals anticipated by Summer 2021. Construction of the pedestrian bridge is tentatively slated for Fall 2021-Summer 2022.

The Engineering Services Department retains professional consultants based on their past work experience, qualifications of their staff, familiarity with the project, staffing availability, and past performance. Once a firm has been selected based on the above criteria, City staff then negotiates a fee with the consultant for performing the desired scope of services. City staff attempts, whenever feasible, to distribute professional services work on an equitable basis to qualified firms maintaining local metropolitan area offices who have expressed interest in working for the City of West Des Moines.

OUTSTANDING ISSUES:

None

RECOMMENDATION:

City Council Adopt:

- Resolution Approving Professional Services Agreement for Raccoon River Pedestrian Bridge at Raccoon River Park.

Lead Staff Member: Brian J. Hemesath, P.E., City Engineer JMS for

STAFF REVIEWS

Department Director	Brian J. Hemesath, P.E., City Engineer
Appropriations/Finance	Tim Stiles, Finance Director
Legal	Richard Scieszinski, City Attorney
Agenda Acceptance	RTG

PUBLICATION(S) (if applicable)

Published In	
Dates(s) Published	

SUBCOMMITTEE REVIEW (if applicable)

Committee	Public Services		
Date Reviewed	November 25, 2019		
Recommendation	Yes	No	Split

RESOLUTION APPROVING PROFESSIONAL SERVICES AGREEMENT

WHEREAS, funding is available for the following described public project:

Raccoon River Pedestrian Bridge at Racoon River Park
Project No. 0510-030-2018

and,

WHEREAS, said project Plans, Specifications, Form of Contract, and Estimate of Cost need to be prepared; and,

WHEREAS, Engineering Services Department staff have recommended Plans, Specifications, Form of Contract, and Estimate of Cost be prepared by Shive-Hattery, Inc., and,

WHEREAS, the Engineering Services Department has obtained a written proposal from Shive-Hattery, Inc. to do the work requested, which estimates the following cost to the City of West Des Moines;

Basic Services of the Consultant	**$564,000.00**
Resident Consultant Services	**$354,000.00**
Total	**$918,000.00**

therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WEST DES MOINES, IOWA, that Shive-Hattery, Inc. is hereby directed to prepare Plans, Specifications, Form of Contract, and Estimate of Cost for the above named project.

BE IT FURTHER RESOLVED, that the City Clerk is authorized and directed to enter into an agreement with Shive-Hattery, Inc. for the cost indicated above as payment by the City of West Des Moines for the services indicated.

PASSED AND APPROVED on this **2nd** day of **December, 2019.**

_____
Steven K. Gaer, Mayor

ATTEST:

_____
Ryan T. Jacobson, City Clerk

AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES

This Agreement is made and entered into this 2nd day of December, 2019, by and between the CITY OF WEST DES MOINES, a municipal corporation, hereinafter referred to as "City", and SHIVE-HATTERY, INC., (Fed. I.D. #42-08770172), a professional corporation incorporated and licensed under the laws of the State of Iowa, party of the second part, hereinafter referred to as "Consultant" as follows:

THE CITY HEREBY AGREES TO RETAIN THE CONSULTANT FOR THE PROJECT AS DESCRIBED IN THIS AGREEMENT AND CONSULTANT AGREES TO PERFORM THE PROFESSIONAL SERVICES AND FURNISH THE NECESSARY DOCUMENTATION FOR THE PROJECT AS GENERALLY DESCRIBED IN THIS AGREEMENT.

1. SCOPE OF SERVICES

   Services provided under this Agreement for the Raccoon River Pedestrian Bridge at Raccoon River Park (Project No. 0510-030-2018) shall be as further described in Attachment 1, Scope of Services.

2. SCHEDULE

   The schedule of the professional services to be performed shall conform to the Schedule set forth in Attachment 2. Any deviations from the Schedule shall be approved by the authorized City representative. The City agrees that the Consultant is not responsible for delays arising from a change in the scope of services, a change in the scale of the Project or delays resulting from causes not directly or indirectly related to the actions of the Consultant.

3. COMPENSATION

   A. In consideration of the professional services provided herein, the City agrees to pay the Consultant the following sum NOT-TO-EXCEED, including any authorized reimbursable expenses, pursuant to the Schedule of Fees set forth in Attachment 3.

I. Basic Services of the Consultant	$ 564,000
II. Resident Consultant Services	$ 354,000
Total	$ 918,000

   B. The Consultant shall invoice the City monthly for services, any reimbursable expenses and any approved amendments to this Agreement, based upon services actually completed at the time of the invoice. Final payment shall be due and payable within 30 days of the City's acceptance of Consultant's submission of final deliverables in accordance with the Scope of Services.

   C. In consideration of the compensation paid to the Consultant, the Consultant agrees to perform all professional services to the satisfaction of the City by performing the professional services in a manner consistent with that degree of care and skill ordinarily exercised by members of Consultant's profession currently practicing under similar circumstances. If the performance of this Agreement involves the services of others or the furnishing of equipment, supplies, or materials, the Consultant agrees to pay for the same in full.

4. INSURANCE

A. Consultant understands and agrees that Consultant shall have no right of coverage under any and all existing or future City comprehensive, self or personal injury policies. Consultant shall provide insurance coverage for and on behalf of Consultant that will sufficiently protect Consultant or Consultant' representative(s) in connection with the professional services which are to be provided by Consultant pursuant to this Agreement, including protection from claims for bodily injury, death, property damage, and lost income. Consultant shall provide worker's compensation insurance coverage for Consultant and all Consultant's personnel. Consultant shall file applicable insurance certificates with the City, and shall also provide evidence of the following additional coverage.

B. The Consultant shall provide evidence of comprehensive general liability coverage and contractual liability insurance by an insurance company licensed to do business in the State of Iowa in the limits of at least $1,000,000 each personal injury accident and/or death; $1,000,000 general aggregate personal injury and/or death; and $1,000,000 for each property damage accident. The evidence shall designate the City as an additional insured, and that it cannot be canceled or materially altered without giving the City at least thirty (30) days written notice by registered mail, return receipt requested.

C. The Consultant shall also provide evidence of automobile liability coverage in the limits of at least $1,000,000 bodily injury and property damage combined. The evidence shall designate the City as an additional insured, and that it cannot be cancelled or materially altered without giving the City at least thirty (30) days written notice by registered mail, return receipt requested.

D. The Consultant shall provide evidence of professional liability insurance, by an insurance company licensed to do business in the State of Iowa, in the limit of $1,000,000 for claims arising out of the professional liability of the Consultant. Consultant shall provide City written notice within five (5) days by registered mail, return receipt requested of the cancellation or material alteration of the professional liability policy.

E. Failure of Consultant to maintain any of the insurance coverages set forth above shall constitute a material breach of this Agreement.

5. NOTICE

Any notice to the parties required under this agreement shall be in writing, delivered to the person designated below, by United States mail or in hand delivery, at the indicated address unless otherwise designated in writing.

FOR THE CITY:

Name: City of West Des Moines
Attn: Ryan T. Jacobson, City Clerk
Address: 4200 Mills Civic Parkway
City, State: West Des Moines, IA 50265-0320

FOR THE CONSULTANT:

Name: Shive-Hattery, Inc.
Attn: Nathan T. Hardisty, Project Manager
Address: 4125 Westown Parkway, Suite 100
City, State: West Des Moines, IA 50266

6. GENERAL COMPLIANCE

In the conduct of the professional services contemplated hereunder, the Consultant shall comply with applicable state, federal, and local law, rules, and regulations, technical standards, or specifications issued by the City. Consultant must qualify for and obtain any required licenses prior to commencement of work, including any professional licenses necessary to perform work within the State of Iowa.

7. STANDARD OF CARE

Services provided by the Consultant under this Agreement shall be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.

8. INDEPENDENT CONTRACTOR

Consultant understands and agrees that the Consultant and Consultant's employees and representatives are not City employees. Consultant shall be solely responsible for payment of salaries, wages, payroll taxes, unemployment benefits, or any other form of compensation or benefit to Consultant or Consultant's employees, representatives or other personnel performing the professional services specified herein, whether it be of a direct or indirect nature. Further, it is expressly understood and agreed that for such purposes neither Consultant nor Consultant's employees, representatives or other personnel shall be entitled to any City payroll, insurance, unemployment, worker's compensation, retirement, or any other benefits whatsoever.

9. NON-DISCRIMINATION

Consultant will not discriminate against any employee of applicant for employment because of race, color, sex, gender identity, sexual orientation, national origin, religion, age, handicap, or veteran status. Consultant will, where appropriate or required, take affirmative action to ensure that applicants are employed, and that employees are treated, during employment, without regard to their race, color, sex, gender identity, sexual orientation, or national origin, religion, age, handicap, or veteran status. Consultant will cooperate with the City in using Consultant's best efforts to ensure that Disadvantaged Business Enterprises are afforded the maximum opportunity to compete for subcontracts of work under this Agreement.

10. HOLD HARMLESS

Consultant agrees to indemnify and hold harmless the City, its officers, agents, and employees from any and all claims, settlements and judgments, to include all reasonable investigative fees, attorney's fees, and court costs for any damage or loss which is due to or arises from a breach of this Agreement, or from negligent acts, errors or omissions in the performance of professional services under this Agreement and those of its sub consultants or anyone for whom Consultant is legally liable.

11. ASSIGNMENT

Consultant shall not assign or otherwise transfer this Agreement or any right or obligations therein without first receiving prior written consent of the City.

12. APPROPRIATION OF FUNDS

The funds appropriated for this Agreement are equal to or exceed the compensation to be paid to Consultant. The City's continuing obligations under this Agreement may be subject to appropriation of funding by the City Council. In the event that sufficient funding is not appropriated in whole or in part for continued performance of the City's obligations under this Agreement, or if appropriated funding is not expended due to City spending limitations, the City may terminate this Agreement without further compensation to the Consultant. To the greatest extent allowed by law, the City shall compensate Consultant as provided in Section 18(B) of this Agreement.

13. AUTHORIZED AMENDMENTS TO AGREEMENT

A. The Consultant and the City acknowledge and agree that no amendment to this Agreement or other form, order or directive may be issued by the City which requires additional compensable work to be performed if such work causes the aggregate amount payable under the amendment, order or directive to exceed the amount appropriated for this Agreement as listed in Section 3, above, unless the Consultant has been given a written assurance by the City that lawful appropriation to cover the costs of the additional work has been made.

B. The Consultant and the City further acknowledge and agree that no amendment to this Agreement or other form, order or directive which requires additional compensable work to be performed under this Agreement shall be issued by the City unless funds are available to pay such additional costs, and the Consultant shall not be entitled to any additional compensation for any additional compensable work performed under this Agreement. The Consultant expressly waives any right to additional compensation, whether in law or equity, unless prior to commencing the additional work the Consultant was given a written amendment, order or directive describing the additional compensable work to be performed and setting forth the amount of compensation to be paid, such amendment, order or directive to be signed by the authorized City representative. It is the Consultant's sole responsibility to know, determine, and ascertain the authority of the City representative signing any amendment, directive or order.

14. OWNERSHIP OF CONSULTING DOCUMENTS

All sketches, tracings, plans, specifications, reports, and other data prepared under this Agreement shall become the property of the City; a reproducible set shall be delivered to the City at no additional cost to the City upon completion of the plans or termination of the services of the Consultant. All drawings and data shall be transmitted in a durable material, with electronic files provided when feasible to do so. The Consultant's liability for use of the sketches, tracings, plans, specifications, reports, and other data prepared under this Agreement shall be limited to the Project.

15. INTERPRETATION

No amendment or modification of this Agreement shall be valid unless expressed in writing and executed by the parties hereto in the same manner as the execution of the Agreement. This is a completely integrated Agreement and contains the entire agreement of the parties; any prior written or oral agreements shall be of no force or effect and shall not be binding upon either party. The laws of the State of Iowa shall govern and any judicial action under the terms of this Agreement shall be exclusively within the jurisdiction of the district court for Polk County, Iowa.

16. COMPLIANCE WITH FEDERAL LAW

To the extent any federal appropriation has or will be provided for the Project, or any federal requirement is imposed on the Project, Consultant agrees that Consultant will comply with all relevant laws, rules and regulations imposed on City and/or Consultant necessary for receipt of the federal appropriation. Consultant shall provide appropriate certification regarding Consultant's compliance.

17. SOLICITATION AND PERFORMANCE

A. The Consultant warrants that it has not employed or retained any company or person, other than a bona fide employee working for the Consultant, to solicit or secure this Agreement, and that the Consultant has not paid or agreed to pay any company or person other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift or contingent fee.

B. The Consultant shall not engage the services of any person or persons in the employ of the City at the time of commencing such services without the written consent of the City.

18. SUSPENSION AND TERMINATION OF AGREEMENT

A. The right is reserved by the City to suspend this Agreement at any time. Such suspension may be affected by the City giving written notice to the Consultant, and shall be effective as of the date established in the suspension notice. Payment for Consultant's services shall be made by the City for services performed to the date established in the suspension notice. Should the City reinstate the work after notice of suspension, such reinstatement may be accomplished by thirty (30) days written notice within a period of six (6) months after such suspension, unless this period is extended by written consent of the Consultant.

B. Upon ten (10) days written notice to the Consultant, the City may terminate the Agreement at any time if it is found that reasons beyond the control of either the City or Consultant make it impossible or against the City's interest to complete the Agreement. In such case, the Consultant shall have no claims against the City except for the value of the work performed up to the date the Agreement is terminated.

C. The City may also terminate this Agreement at any time if it is found that the Consultant has violated any material term or condition of this Agreement or that Consultant has failed to maintain workers' compensation insurance or other insurance provided for in this Agreement. In the event of such default by the Consultant, the City may give ten (10) days written notice to the Consultant of the City's intent to terminate the Agreement. Consultant shall have ten (10) days from notification to remedy the conditions constituting the default.

D. In the event that this Agreement is terminated in accordance with paragraph C of this section, the City may take possession of any work and may complete any work by whatever means the City may select. The cost of completing said work shall be deducted from the balance which would have been due to the Consultant had the Agreement not been terminated and work completed in accordance with contract documents.

E. The Consultant may terminate this Agreement if it is found that the City has violated any material term or condition of this Agreement. In the event of such default by the City, the Consultant shall give ten (10) days written notice to the City of the Consultant's intent to terminate the Agreement. City shall have ten (10) days from notification to remedy the conditions constituting the default.

19. TAXES

The Consultant shall pay all sales and use taxes required to be paid to the State of Iowa on the work covered by this Agreement. The Consultant shall execute and deliver and shall cause any sub-consultant or subcontractor to execute and deliver to the City certificates as required to permit the City to make application for refunds of said sales and use taxes as applicable. The City is a municipal corporation and not subject to state and local tax, use tax, or federal excise taxes.

20. SEVERABILITY

If any portion of this Agreement is held invalid or unenforceable by a court of competent jurisdiction, the remaining portions of this Agreement shall continue in full force and effect.

21. MISCELLANEOUS HEADINGS

Title to articles, paragraphs, and subparagraphs are for information purposes only and shall not be considered a substantive part of this Agreement.

22. FURTHER ASSURANCES

Each party hereby agrees to execute and deliver such additional instruments and documents and to take all such other action as the other party may reasonably request from time to time in order to affect the provisions and purposes of this Agreement.

23. COUNTERPARTS

This Agreement may be executed in any number of counterparts, each of which shall constitute an original document, no other counterpart needing to be produced, and all of which when taken together shall constitute the same instrument.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized officers or agents on the day and year first above written.

SHIVE-HATTERY, INC.	CITY OF WEST DES MOINES
BY: _____	BY: _____
Nathan T. Hardisty, Project Manager	Ryan T. Jacobson, City Clerk

ATTACHMENT 1

Raccoon River Pedestrian Bridge at Raccoon River Park
Project Number 0510-030-2018

SCOPE OF SERVICES

DIVISION I - BASIC SERVICES OF THE CONSULTANT

The Consultant shall consult on a regular basis with the City to clarify and define the City's requirements. The City agrees to furnish to the Consultant full information with respect to the City's requirements, including any special or extraordinary considerations for the Project or special services needed, and also to make available pertinent existing data. The Raccoon River Pedestrian Bridge at Raccoon River Park project is generally described as follows:

Surveys and Mapping, Preliminary Design, Coordination with adjacent projects and studies, Final Plans and Specifications, Bidding, Construction Administration and Resident Consulting Services for the construction of the Raccoon River Pedestrian Bridge at Raccoon River park.

This scope of services is based on the following project assumptions:

- A feasibility study of the proposed has been completed by Shive-Hattery and approved by the City of West Des Moines as to the general type, size, and location of the proposed bridge.
    - The pedestrian bridge will generally be directly south of Raccoon River Park, crossing the Raccoon River and connecting with Walnut Woods State Park State Park.
    - The northern terminus of the project will be within Raccoon River Park at an existing paved trail or hard surface parking lot.
    - The southern terminus of the project will be at SE Walnut Woods State Park Drive and/or Walnut Woods State Park Campground.

The scope of services to be performed by the Consultant shall be completed in accordance with generally accepted standards of practice and shall include the services to complete the following tasks:

1. **Project Management**
   The Project Manager will manage the budget and schedule for the project, serve as the point of contact for City staff, be responsible for coordinating all work done by the design team, and shall provide the City with bi-weekly progress reports. Updates to the City of West Des Moines' SharePoint site for capital improvement projects shall be the responsibility of the consultant.

2. **Coordination**
   A. The Consultant shall coordinate with the Iowa Department of Natural Resources (DNR) flood plain management division as needed for the approval of a floodplain construction permit.
   B. The consultant shall coordinate with the United States Army Corps of Engineers (USACE) as needed from the approval of the Section 404 permit.
   C. The Consultant shall coordination with City Staff for the aesthetic treatments to be incorporated into the design of bridge.
   D. The Consultant shall coordinate with the Iowa DNR Walnut Woods State Park Park Staff for construction within Walnut Woods State Park State Park and the termination of the trail within the park.

3. **Surveys and Mapping**

A. The Consultant shall perform field and office tasks required to collect topographic data, and right-of-way information deemed necessary to complete the project.

B. The Consultant will conduct field surveys to obtain topographic data, ground elevations, and cross sections required for the development of the Project.

C. The Consultant shall obtain high resolution georeferenced orthomosaic map of the site (aerial photography utilizing a UAV).

D. The Consultant will contact the various utility companies and collect available information on underground utility locations and incorporate such available utility information into the base mapping of the project. Utilities to be researched include sanitary sewer, storm sewer, electric, gas, water, telephone, cable, and fiber optic lines. It is anticipated that few existing utilities are within the project site.

E. The Consultant will research City, County, and State Records to establish locations of property lines, right-of-way lines, and property ownership for the properties affected by the project and incorporate this data into the base mapping of the project.

F. The Consultant shall provide staking for soil boring locations.

1) It is anticipated that no permanent right-of-way acquisition or easements will be required. A temporary construction easement may be necessary on one parcel.

4. **Conceptual Design**

A. The consultant shall revisit the concept created with the feasibility study to complete the following

1) Determine trail connection extents and alignments.

2) Determine aesthetic treatments to be included with the project.

a) Treatments anticipated to include aesthetic bridge railings, interpretative signage, bridge overlooks, ornamental vegetation, and lighting.

b) Consultant shall complete renderings of aesthetic treatment options for discussion and selection by City of West Des Moines, three alternatives are included.

3) Evaluate the use of four spans vs three spans to reduce the individual span length and potentially reduce the cost of the proposed bridge.

4) Deliverables: Updated concept plan, Updated Conceptual Level Opinion of Probable Cost, Aesthetic option renderings.

5. **Preliminary Design and Plans**

A. The Consultant will develop preliminary plans for the proposed pedestrian bridge and trail connections. The plans will include project extents, preliminary pedestrian bridge, grading plan including in river grading, trail geometry, and park impacts.

B. The preliminary plans for the project will be approximately 50% complete upon completion of the Preliminary Design. Preliminary Design plans will include the following:

1) Title and General Information Sheets (A Sheets)

2) Preliminary Typical Cross Sections (B Sheets)

3) Preliminary Plan and Profile Sheets (D and E Sheets)

4) Reference Ties and Bench Marks (G Sheets)

5) Preliminary Staging and Access sheets (J Sheets)

6) Preliminary Stormwater Drainage Design, if necessary (M Sheets)

7) Preliminary Type, Size, and Location of Pedestrian Bridge (V Sheets)

8) Preliminary Trail Cross Section Sheets (W Sheets)

C. An Opinion of Probable Construction Cost will be completed with Preliminary Design.
D. Deliverables: Preliminary Plans, Preliminary Opinion of Probable Cost.

6. **Geotechnical Investigations** By subconsultant fee, not to exceed $60,665.00.

Field Exploration
Subconsultant plan to mobilize our barge and experienced exploration team to perform geotechnical drilling near the mid-bridge support locations within the Raccoon River channel. The water-born exploration schedule will need to consider the stage of the river and availability of the barge, crane, and drilling equipment.

Each boring is planned to extend to bedrock to evaluate capacity for pile foundations. Based on our local experience, the soil/bedrock interface is anticipated to be at depths of about 40 to 50 feet below the river channel bottom and land-based surfaces. A summary of the anticipated exploration program is provided below:

Planned Location	Number of Borings	Planned Boring Depth (bgs)
North and south abutment	2 (1 at each abutment)	Borings planned to extend up to 10 feet bedrock (Bedrock estimated to be about 50 feet below ground surface at each boring)
Mid-bridge supports	2 or 3 (1 at each support)	Borings planned to extend up to 10 feet of drilling into bedrock (Bedrock estimated to be about 40 to 50 feet below the bottom of the river channel at each boring)

The field exploration program is described below:

- Sampling of overburden soils will be performed using thin-walled Shelby tubes and/or a split-barrel sampler.
- 5 to 6 samples will be obtained within 20 feet of the ground surface or bottom of the river channel at each boring, and samples will be obtained at 5 foot depth intervals thereafter.
- Samples will be classified in the field, then placed in appropriate sample containers for transport to our laboratory.

The land-based borings will be backfilled with auger cuttings and/or bentonite after completion. Borings in the river will be abandoned by removing the boring tooling and allowing the alluvial sands to cave into zones displaced by the casing or tooling.

The exploration team will prepare field boring logs to record sampling depths, penetration distances, other relevant sampling information, visual descriptions of the materials encountered during drilling, and the driller's interpretation of the subsurface conditions between samples.

Site Access: In order to conduct our field services, Subconsultant must be granted access to the site by the property owner(s).

The barge is planned to be transported on a tractor-trailer. A mobile crane would be mobilized to the grass lawn area north of the boat ramp of Walnut Woods State Park (between Walnut Woods Drive and the Raccoon River). The barge trailer would be temporarily parked on the concrete pavement of Walnut Woods Drive, and the crane would

lift the barge pieces into the Raccoon River. After assembling the barge, we would plan to use the boat ramp to drive the drilling equipment onto the barge. The barge would travel along the Raccoon River to the mid-bridge support locations. The process would be reversed to remove the barge and equipment from the river.

Subconsultant plans to use our ATV-mounted drilling equipment (with tracks or rubber-tires) and a support pick-up truck to perform the proposed abutment borings. To access the north bridge abutment area, we plan to unload and load our equipment from a tractor-trailer on the concrete surfaced parking area of the Raccoon River Park and drive the equipment along the granular surfaced trail in the Raccoon River Park. To access the south bridge abutment area, we plan to unload and load our equipment from the tractor-trailer on the concrete surfaced parking area of the Hidden Valley Soccer Complex and drive the equipment to the Walnut Woods hiking trail that is located near the east and north sides of Walnut Woods State Park. It is understood the hiking trail is exposed earth.

Subconsultant have discussed our proposed exploration with the United States Army Corps of Engineers, and we understand permits will not be required to perform the borings in the Raccoon River channel.

Subconsultant anticipates permits and/or agreements might be needed to access the boring locations, set up the crane, and perform the borings within Walnut Woods State Park (e.g., with the Iowa Department of Natural Resources, West Des Moines Parks and Recreation). Coordination for these permits is included.

Property Disturbance: Reasonable efforts to reduce damage to the property. However, it should also be understood that in the normal course of our work, disturbance could occur (e.g., rutting from tires, depressions from crane out-riggers).

Laboratory Testing

The project engineer will review field data and assign laboratory tests. Laboratory testing for this project is proposed to consist of:

Test Description	Number of Tests Included
Water Content	Each sample
Unit Weight	Each intact thin-walled tube sample
Unconfined Compression Strength	Each intact thin-walled tube sample
Atterberg Limits	Up to 4
Grain Size Analyses (sieve and hydrometer tests)	Up to 6

The laboratory testing program will include examination of soil and bedrock samples. Based on the material's texture and plasticity, subconsultant will describe and classify soil samples in general accordance with the Unified Soil Classification System (USCS).

Engineering and Project Delivery

Results of field and laboratory programs will be reviewed by a professional engineer. The engineer will develop a geotechnical site characterization and develop appropriate geotechnical engineering design criteria for earth-related phases of the project.

The geotechnical engineering report will provide the following:

- Boring Logs with field data, laboratory data.
- Stratification based on visual soil and bedrock description.
- Groundwater levels observed during and after the completion of drilling.
- Site Location and Exploration Plans.
- Subsurface exploration procedures.
- Description of subsurface conditions.
- Deep foundation design and construction considerations:
    - Design parameters for deep foundation elements (e.g, driven steel piles) and allowable resistance values, including:
        - Unit weight.
        - Cohesion.
        - Friction angle.
        - End bearing.
        - Side friction/adhesion.
        - Passive resistance.
        - Lateral resistance parameters for LPILE® software.
        - Recommended factors of safety.
- Earthwork construction including:
    - Site preparation.
    - Structural fill material types, including suitability of on-site soils.
    - Structural fill compaction criteria.
    - Excavation considerations.

The report will address the general need for temporary excavation and temporary protection, such as excavation sheeting, and temporary dewatering systems. However, analyses or design of temporary construction slopes, shoring systems, or dewatering systems are not included in our scope of services. These items, which are intimately related to site access and safety, should be analyzed and designed by the contractor based on detailed review of construction sequencing and should consider the proposed grading, structural design and adjacent subsurface structures and utilities.

7. Hydraulic Analysis

A. Verify with Iowa DNR the existing condition HEC-RAS model received in 2017 as part of feasibility study is the current and appropriate Raccoon River model for use in the permitting of the project.
B. Analyze the original concept including the addition of a third in river pier.
C. Analyze proposed project Hydraulics to achieve a "No-Rise" condition as necessary in order to receive a Flood Plain Construction Permit from the Iowa DNR.
D. Prepare and submit the required Joint Permit Application including the necessary Iowa DNR Floodplain permitting documentation.
E. The scope of services does not include revisions to the effective FIRM.

8. **Final Plans and Specifications**

A. Based upon approved preliminary design, the Consultant shall subsequently proceed with final design, construction drawings, specifications, and an opinion of probable construction cost for the award of a single contract for the construction of the proposed improvements, including electrical and lighting design. Final Plans and Specifications to include the following:

1) Title and General Information Sheets (A Sheets)
2) Typical Cross Sections (B Sheets)
3) Estimate of Quantities, Estimate Reference Information, Tabulations (C Sheets)
4) Trail Plan and Profile Sheets (D and E Sheets)
5) Erosion Control Sheets (EC Sheets)
6) Reference Ties and Bench Marks (G Sheets)
7) Staging and Access sheets (J Sheets)
8) Stormwater Drainage Design, if necessary (M Sheets)
9) Electrical and Lighting Sheets, if necessary (P Sheets)
10) Curb Ramp, Sidewalk, and Trail Plans and tabulations, If necessary (S Sheets)
11) Construction Details, planting plans, interpretative signage, aesthetic improvements, Special Grading Areas (U Sheets)
12) Pedestrian Bridge Sheets (V Sheets)
13) Detailed Cross Sections (W Sheets)

B. Opinion of Probable Cost

C. Deliverables: Final Plans and Specifications, Final Opinion of Probable Cost.

9. **USACE (United States Army Corps of Engineers) Section 404 Permitting**

By subconsultant. Fee not to exceed $68,860.00

A. Wetland and WUS Delineation

Subconsultant will perform a wetland and WUS delineation of the project area. The delineation will use mandatory technical criteria, field indicators, and other sources of information to assess whether the project area has jurisdictional wetlands or WUS. The classification will be performed by an experienced biologist, environmental scientist, or engineer. If wetlands are present, the upper boundaries within the project area will be identified.

WUS will also be identified and mapped during the delineation.

The methods Subconsultant will use in the delineation generally follow the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (2010) and the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1987). Under normal circumstances, wetlands generally have three essential characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology.

Our proposed Scope of Work includes the following:

- Assemble application information (i.e., aerial maps, soil classifications, site hydrology, vegetation type, etc.).
- Perform on-site visit to gather data pertaining to the hydrophytic vegetation community, surface hydrology, and hydric soil characteristics. The following items will be performed at discrete data point locations within suspect wetland areas on- site.
    - Assess each stratum of vegetation (i.e., trees, saplings/shrubs, herbs, and woody vines). Vegetation will be classified by Genus species and dominance will be assessed.
    - Classify soil types and evaluate hydric soil indicators using shallow soil probes or spade holes.

    - Observe site characteristics for wetland hydrology indicators.
- Utilize a hand-held GPS unit (sub-meter accuracy) to map the location and boundaries of delineated wetlands and WUS. If heavy tree cover is present, a non- GPS survey may be needed to identify wetland boundaries. Fees for standard surveying have not been included in this proposal.
- Prepare maps showing the delineated wetland and WUS area(s).
- Submit a Wetland and Waters of the U.S. Delineation Report containing the applicable data, wetland jurisdictional rationale, and proposed project information.

The scope of this proposal includes one site visit to conduct a baseline delineation. The fees in this proposal do not include additional meetings or data collection/evaluation that may be requested by the USACE.

B. Mitigation Plan and Section 404 Permit Application

Subconsultant will prepare and submit a Section 404 Permit Application containing the applicable data, wetland jurisdictional rationale, and proposed project information to the USACE, IDNR Flood Plain Section, and IDNR Sovereign Lands Section. The Section 404 Permit will include information provided by Shive regarding floodplain impacts from the proposed bridge.

Subconsultant will also prepare a Mitigation Plan for the project to address Section 404 permitting requirements. The Mitigation Plan will summarize each wetland and/or WUS area that will be impacted by the project based on the findings in the Delineation Report and the proposed site plan for the project. Subconsultant will review the USACE database to identify wetland and/or stream mitigation banks that contain the project site in their service area. We will contact the bank/banks regarding the purchase of credits for wetland and WUS impacts. We will utilize the State of Iowa Stream Mitigation Method as a guideline for determining the quantity of WUS credits need for the project.

If sufficient forested wetland mitigation credits are not available, Subconsultant will coordinate with the City to select a suitable on-site or off-site mitigation area. Fees assume that the City will identify locations for wetland mitigation if it occurs off-site. If on-site or off- site mitigation is utilized, the mitigation plan will include an implementation plan that discusses the proposed grading, water control structures, buffer areas, and anticipated hydrology of the mitigation area. Subconsultant will prepare seeding and tree planting guidelines for the mitigation areas based on the grading plans and anticipated hydrology.

The client should understand that a mitigation plan is a conceptual design to outline the details of mitigation activities proposed for the site for regulatory approval. It should not be relied upon for construction. We recommend that detailed engineering plans and specifications be developed upon USACE approval of the mitigation plan and prior to construction. The City shall understand that Subconsultant cannot guarantee that the USACE or other relevant governmental agencies will ultimately approve the prepared application, since such authorization is beyond their control.

This proposal does not include engineering plans and specifications, construction, or installation of a forested mitigation site, As-Constructed Documentation, Annual Monitoring Reports (typically required by the USACE as a permit condition) or other operating conditions that may be required by the Section 404 Permit. This proposal does not include fees for Wetland Delineation, Phase I Cultural Resource Survey and topographic survey services that may be required if an off-site mitigation area is selected. Fees for those surveys have not been included in this proposal, but will be provided when the mitigation site is identified.

C. Alternative Analysis

If an Individual Permit will be required for the project, the USACE will require an Alternative Analysis for the project in addition to the Mitigation Plan. Subconsultant will prepare an Alternative Report that will include the following discussions:

- Project Purpose
- Project Need
- Alternate Site Analysis
- Avoidance of Impact
- Minimization of Impact
- Compensatory Mitigation

The Alternative Analysis will be based on the Memorandum of Agreement (MOA) between the Environmental Protection Agency (EPA) and the Department of the Army concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines, dated February 6, 1990. As indicated in the MOA, when evaluating 404 permit applications, the USACE follows the steps listed below:

- determines that potential impacts have been avoided to the maximum extent practicable;
- determines that the remaining unavoidable impacts will then be mitigated to the extent appropriate and practicable; and
- compensates for aquatic resource values.

Following submittal of the Alternatives Analysis, Subconsultant will coordinate with the USACE to facilitate issuance of the Section 404 Permit. If an Alternate Analysis is required, the City and Shive will need to provide background and supporting information, such as alternate sites evaluated or design information. The proposed fees for the alternatives analysis assume that the client will provide Subconsultant information required to generate the Alternative Analysis report.

D. Threatened & Endangered Species Habitat Assessment

Subconsultant will retain a subcontractor to perform a T&E habitat assessment of the project area. The T&E Habitat Assessment will include a review of U.S. Fish and Wildlife Service (FWS) Planning and Consultation System and the IDNR's Natural Areas Inventory database to identify species of concern and records of known occurrences. A walking survey of the project area will be conducted by a project biologist to assess the potential for T&E species. As part of the walking survey, the subcontractor will identify high quality trees along the proposed pedestrian trail routes. A report will be prepared to document the findings of the database search and field survey.

An acoustic survey will be performed to evaluate the presence/probable absence of Indiana bats and/or Northern long-eared bats. A report will be prepared summarizing the results of the acoustic survey.

If requested by the FWS, a mussel survey will be conducted from 200 feet upstream to 200 feet downstream of the proposed bridge over the Raccoon River to determine if state or federally listed mussels are present in the survey area. The objective of the survey will be to identify the location, density, and distribution of mussels within the survey area.

The survey area will be divided into survey segments and will be sampled using a combination of qualitative and quantitative sampling methods generally following methods acceptable to the Iowa DNR. All mussels encountered will be identified to species, counted, and measured. All threatened or endangered individuals and representative specimens of other species will be photographed. Collected mussels will be kept in shaded ambient water during processing and returned to the capture location as soon as possible after processing. In addition to mussel data, data on substrate type, stream width and depth, temperature, and water clarity will be collected. A final report will be completed following the fieldwork which will include methods, results, and discussion. Maps will be prepared showing search locations, mussel distribution, depth, and substrate composition.

E. Phase I Cultural Resource Survey

Subconsultant will retain a subcontractor to perform a limited/cursory archeological survey for review by the State Historical Preservation Office (SHPO) during the permitting process. The Phase I investigation will consist of the project area. The task does not include Phase I Cultural Resource surveys if an off-site mitigation site is selected or Phase II archeological investigations at the project site.

F. Project Meetings

Subconsultant will meet with the City, Consultant, USACE and/or the IDNR to review progress and to discuss specific elements of the project. Fees are based on three meetings occurring in the Des Moines metropolitan area. For budgetary purposes, it is assumed that the meetings will be attended by one Subconsultant staff member. Additional fees may be incurred for meetings requiring field investigation and/or travel to the USACE office in Rock Island, Illinois.

10. Bidding

A. The Consultant will coordinate and manage the letting process for the project including preparing the formal Notice of Hearing and Letting, and plan clarification and addenda. Consultant to attend bid opening, prepare the bid tabulation, make recommendation of award of contract, and secure the necessary contractual documents.

DIVISION II – RESIDENT CONSULTING SERVICES

Construction Phase Services

1. Construction Administration

A. Construction Administration services shall consist of office-based services to assist the City in implementing the construction contract for this project. The work tasks to be performed by the Consultant shall include the following:

1) Conduct a Pre-Construction Meeting after the award of the construction contract for the Contractor, Subcontractors, Utility Companies and other interested parties.

2) Review Shop drawings, samples, and other data which the Contractor is required to submit.

3) Participate in weekly Construction meetings. For budgeting purposes, it is assumed meetings will completed in accordance with the schedule included within this professional services agreement.

4) Provide visits to the site at intervals appropriate to the various stages of construction as the Consultant deems necessary in order to observe as an experienced and qualified design professional the progress and quality of the various aspects of the Contractor's work. For budgeting purposes, it is assumed one site visits per week will be completed in accordance with the schedule included within this professional services agreement and shall coincide with the timing of the weekly construction meetings.

5) Provide a final review of work for each phase to determine if work has been completed satisfactorily according to contract documents. Prepare a list of deficient items to the Contractor as required.

6) Review final payment application, bonds, and provide recommendation to Owner for final project acceptance.

7) Issue necessary interpretations and clarifications of the plans, and in connection therewith, prepare change orders as required.

8) Assist in processing Pay Requests and Change orders.

9) Prepare construction record drawings defining the actual location of improvements and fixtures showing those changes made during construction, based on the marked-up drawings and other data furnished by the contractor and the Resident Construction observer. Field survey of the constructed project is not included.

2. Resident Construction Observation
   A. Work to be performed under this phase of the Project shall include fresh concrete testing and frequent resident observation of the construction work in addition to that included under Construction Administration. The Consultant shall determine the quantities of work completed and recommend, in writing, payments to the Contractor in such amounts. Resident Construction Observation Services are assumed to be completed in accordance with schedule included within this professional services agreement.
   B. Documentation of construction progress as observed by resident construction observers including photographs and written field reports containing information on unexpected issues encountered in the field, timing of when individual infrastructure items are installed, and weather conditions on site.
   C. Work shall include observing the performance of construction work and advising the Contractor and the City of non-complying work or materials incorporated into the project.

ADDITIONAL SERVICES NOT INCLUDED IN THIS CONTRACT

Additional Services not included as part of the Scope. If authorized, under a supplemental agreement, the Consultant shall furnish or obtain from others the following services:

1. Real Estate Acquisition Services.
2. Relocation of bridge from the selected location included in the completed feasibility study.
3. Trail Connection Design to the Great Western Trail.
4. Travel for meetings with USACE at Rock Island, IL office location.
5. Engineering plans and specifications, construction, or installation of a forested mitigation site, As-Constructed Documentation, Annual Monitoring Reports (typically required by the USACE as a permit condition) or other operating conditions that may be required by the Section 404 Permit.
6. Design of temporary construction slopes, shoring systems, or dewatering systems.

ATTACHMENT 2

Raccoon River Pedestrian Bridge at Raccoon River Park
Project Number 0510-030-2018

PROJECT SCHEDULE

The time of completion of the design and engineering services under this Agreement shall be as follows:

I. Basic Services of the Consultant

A. Authorization to Proceed	December 3rd, 2019
B. Survey and Mapping	Winter 2019/2020
C. Conceptual Design	January-February 2020
D. Preliminary Design	February – June 2020
E. Hydraulic Analysis	February – June 2020
F. USACE/IDNR Joint Permit Application submittal	Summer 2020
G. Final Plans and Specifications	Summer 2021
H. Bidding	Summer/Fall 2021

II. Resident Consultant Services

A. Construction Administration	Fall 2021-Summer 2022
B. Construction Observation	Fall 2021-Summer 2022

ATTACHMENT 3

Raccoon River Pedestrian Bridge at Raccoon River Park
Project Number 0510-030-2018

SCHEDULE OF FEES

STANDARD HOURLY FEE SCHEDULE
Effective January 1, 2019 to December 31, 2019

PROFESSIONAL STAFF:

Grade 1	$ 88.00
Grade 2	$106.00
Grade 3	$119.00
Grade 4	$133.00
Grade 5	$146.00
Grade 6	$159.00
Grade 7	$173.00
Grade 8	$190.00
Grade 9	$207.00

ADMIN STAFF: $ 60.00

TECHNICAL STAFF:

Grade 1	$ 61.00
Grade 2	$ 76.00
Grade 3	$ 85.00
Grade 4	$ 93.00
Grade 5	$106.00
Grade 6	$119.00
Grade 7	$133.00

SURVEY STAFF:

One Person	$126.00
Two Person	$193.00
Drone Surveyor (Video or Photogrammetry)	$155.00
Drone Surveyor (Thermography)	$310.00
Scanning Surveyor	$155.00
Surveyor with Two Scanners	$210.00

REIMBURSABLE EXPENSES:

TRAVEL

Mileage- Car/Truck	$0.58/ Mile
Mileage- Survey Trucks	$0.68/ Mile

OUTSIDE SERVICES

Computer Services	Cost + 10%
Aerial Photogrammetry	Cost + 10%
Professional Services	Cost + 10%
Prints/Plots/Photos	Cost + 10%
Deliveries	Cost + 10%

IN-HOUSE SERVICES

Prints/Plots:

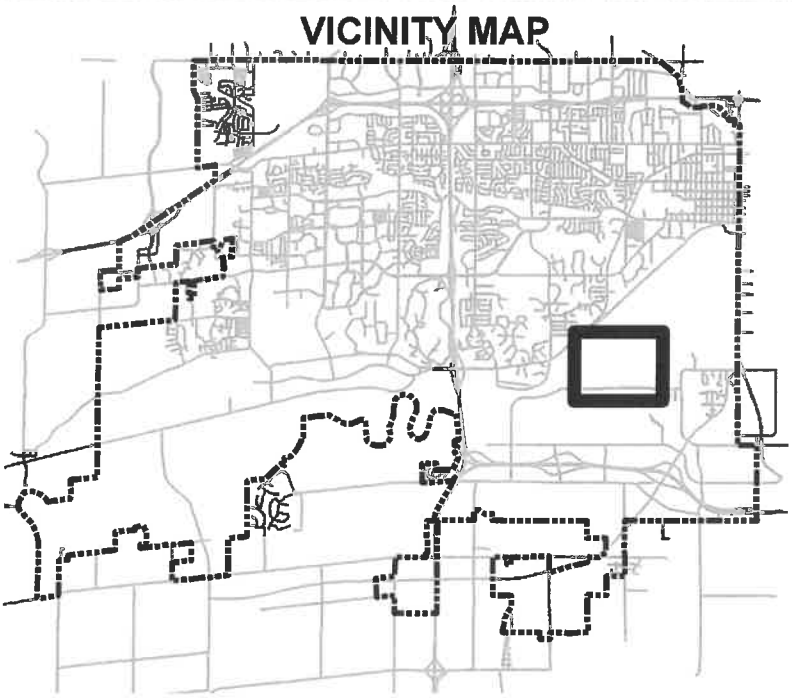
Bond	$ .30/Sq. Ft.
Mylar	$ .75/Sq. Ft.
Photogloss	$ .90/Sq. Ft.
Color Bond	$ .60/Sq. Ft.
Foam Core Mounting	$ 13.00

Color Prints:

Letter Size	$ 1.00
Legal Size	$ 2.00

An annual 4% inflation adjustment is anticipated for work completed beyond 2019.

VICINITY MAP



LEGEND

PROJECT LOCATION

PEDESTRIAN BRIDGE

TRAIL REALIGNMENT

N
W E
S

THE CITY OF WEST DES MOINES

PROJECT:

Raccoon River Pedestrian Bridge

LOCATION:

Exhibit "A"

DRAWN BY: JDR	DATE: 11/21/2019	PROJECT NUMBER/NAME: 0510-030-2018	SHT. 1 of 1