

**CITY OF LA VISTA  
MAYOR AND CITY COUNCIL REPORT  
APRIL 20, 2021 AGENDA**

| <b>Subject:</b>   | <b>Type:</b>                              | <b>Submitted By:</b>  |
|---|---|---|
| AMEND AGREEMENT -<br>PROFESSIONAL SERVICES –<br>84 <sup>TH</sup> STREET UNDERPASS | ◆ RESOLUTION<br>ORDINANCE<br>RECEIVE/FILE | CHRISTOPHER SOLBERG<br>DEPUTY COMMUNITY<br>DEVELOPMENT DIRECTOR |

**SYNOPSIS**

A resolution has been prepared to approve an amendment to the Streetscape Final Design agreement with Design Workshop to provide final design, bidding, and limited construction management services for the 84<sup>th</sup> Street underpass for an amount not to exceed \$208,770.

**FISCAL IMPACT**

The FY21/FY22 biennial budget provides finding for the proposed service.

**RECOMMENDATION**

Approval.

**BACKGROUND**

On November 6, 2018 City Council approved an agreement with Design Workshop for final design services related to the Streetscape Plan for 84<sup>th</sup> Street in which Schemmer Associates served as a subconsultant.

In preparation for related project design work along 84<sup>th</sup> Street, it was concluded that design work related to the 84<sup>th</sup> Street Underpass project should be conducted, in part to determine the impact on the final design for streetscape improvements. The proposed professional services agreement amendment will amend the City's contract with Design Workshop, and their subconsultant Schemmer Associates, to provide preliminary and final design services specifically related to the 84<sup>th</sup> Street Underpass. The contract will include preliminary design, final design, construction document preparation, USACE permitting assistance, bid phase services, and limited construction phase services.

**RESOLUTION NO. \_\_\_\_\_**

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF LA VISTA, NEBRASKA AUTHORIZING AN AGREEMENT WITH DESIGN WORKSHOP, INC. OF DENVER, COLORADO, TO PROVIDE DESIGN, BIDDING, AND LIMITED CONSTRUCTION MANAGEMENT SERVICES RELATED TO THE 84<sup>TH</sup> STREET UNDERPASS IN AN AMOUNT NOT TO EXCEED \$208,770.

WHEREAS, the Mayor and City Council of the City of La Vista have determined that professional services are necessary in preparation for the design and construction of the 84<sup>th</sup> Street underpass; and

WHEREAS, on July 5, 2017 the City Council of the City of La Vista approved the selection of Design Workshop to provide schematic design services for the Streetscape Plan for 84<sup>th</sup> Street; and

WHEREAS, on November 6, 2018 the City Council of the City of La Vista approved an agreement with Design Workshop for final design services related to the Streetscape Plan for 84<sup>th</sup> Street; and

WHEREAS, it was determined that design work related to the 84th Street Underpass project should be conducted, in part to determine the impact on the final design for streetscape improvements; and

WHEREAS, a detailed scope of work and terms of an agreement for design, bidding, and limited construction management services has been determined; and

WHEREAS, the FY20/21 Biennial Budget contains funding for multiple potential public infrastructure improvements and associated services; and

WHEREAS, Subsection (C) (9) of Section 31.23 of the La Vista Municipal Code requires that the City Administrator secures Council approval prior to authorizing any purchase over \$5,000.;

NOW, THEREFORE BE IT RESOLVED, that the Mayor and City Council of La Vista, Nebraska do hereby approve an agreement with Design Workshop, Inc. of Denver, Colorado, to provide design, bidding, and limited construction management services for the 84th Street Underpass in an amount not to exceed \$208,770.00.

PASSED AND APPROVED THIS 20TH DAY OF APRIL 2021.

CITY OF LA VISTA

ATTEST:

\_\_\_\_\_  
Douglas Kindig, Mayor

\_\_\_\_\_  
Pamela A. Buethe, CMC  
City Clerk

## PROJECT DESCRIPTION

This project is meant to provide a seamless pedestrian connection and emergency access from the new Civic Center Park to the park space on the west side of 84<sup>th</sup> street. The scope of services for this project involves design coordination between the Civic Center Park and Placemaking design teams and the 84<sup>th</sup> Streetscape design team. This team will provide the design and engineering design services required to produce final construction plans and specifications. It is understood the underpass will consist of a single span bridge with landscaping “steps” adjacent to both abutments (the exact final concept and features have not been determined yet). It is desired to carry Thompson Creek, currently carried by the 8’x8’ concrete box culvert, in an open channel through the underpass as a water feature. Upon exiting the underpass, the open channel is to let the storm water flow down to existing elevations through a series of falls and/or energy dissipaters. The scope for the pedestrian underpass design will include the following; 1) the trail through the underpass, 2) any required pedestrian railing along trail or open channel, 3) aesthetics for treating the “steps” adjacent to either abutments, and 4) connection with any potential overhead aesthetics or project enhancements, and 5) lighting of the underpass is included.

## SCOPE OF SERVICES

### **Task 1 | Landscape architecture and site design (Design Workshop)**

#### Task 1.1 – Preliminary Design

Our team will create a preliminary design plan set for review by the City. This set will establish the critical dimensions and character of the underpass and it’s relation to the adjacent park spaces and connections. It will address the aesthetics of the underpass and bridge design and include the treatment of the abutment walls and slopes. As part of the preliminary design task we will prepare an opinion of probable cost for review. Coordinate with Park design team for grading and drainage. Coordinate with Streetscape design for items such as earthwork quantities, trails and walks along 84<sup>th</sup> street.

#### Task 1.2 – Final Design

Our team will produce a 90% review set prior to submitting final documents. This 90% set would represent the set that is reviewed by the City Engineer. After this final review we will produce 100% Construction Documents ready for bid. This package will include:

- General Information Series
- Site Protection and Tree Removal Plan Series
- Site Materials Plan Series
- Site Layout Plan Series
- Landscape Grading Series
- Reference Sections Series
- Site Details Series
- Tree Planting Plan Series
- Shrub and Ground Cover Plan Series
- Landscape Detail Series
- Lighting Plan Series
- Updated opinion of probable cost

#### Task 1.3 - CSI Specifications

Our team will prepare a full project manual complying with City of Omaha standard specifications, 2014 edition. Landscape, lighting and irrigation will be in CSI format for all scope items listed above. All work associated with the bridge design will be included in NDOT standard specification format. The City is responsible for Section 1 General Conditions.

The following products will be prepared/delivered:

1. Preliminary Design Set
2. Final Design Set
3. Project Manual
4. Opinion of Probable Cost
5. Composite 3d image showing proposed bridge and park access road. Final 3d deliverable provided in SketchUp format.

## **Task 2 | Civil and Structural Engineering (Schemmer)**

*See attachment Exhibit A*

## **CONDITIONS AND EXCLUSIONS**

Client shall provide the following information or services as required for performance of its services. Design Workshop assumes no responsibility for the accuracy of such information or services provided by Client, and shall not be liable for errors or omissions therein. Should Design Workshop be required to provide services in obtaining or coordinating compilation of this information, such services shall be billed as Additional Services.

In order to begin services, we will require the following information:

1. Topographic field surveys of the property which include but are not limited to the property lines, easements, utilities, structures, buildings, one (1) foot contours intervals, etc.
2. A copy of soils/geology reports.
3. A copy of current architectural, structural, civil engineering, plumbing and electrical engineering, paving, lighting and interiors plans and details.

## **PROJECT TEAM**

Design Workshop typically organizes projects in a team format with key responsibilities divided between the Principal-in-Charge and Project Manager. The key team members for your project are listed below:

Principal-in-Charge – Robb Berg

Robb will serve as Principal-in-Charge of the 84th Street – Underpass Bridge Design project and Park Access Road project and will have primary responsibility for the overall content and quality of the services performed by Design Workshop and our consultant team.

Project Manager – Scott Miller

Scott will serve as the Project Manager for the 84th Street – Underpass Bridge Design and Park Access Road Design. His responsibilities will include the coordination of Design Workshop's in-house design team as well as regular communication and coordination with all members of Design Workshop's consultant team.

## SCHEDULE

Design Workshop is prepared to begin services immediately upon receipt of a signed copy of this proposal from an authorized owner's representative. See Exhibit A for additional submittal detail.

## FEES AND EXPENSES

1. Basic services  
Compensation to Design Workshop for the services described herein in
  - Task 1 and Task 2 – Landscape, Lighting, Irrigation \$ 50,500
  - Exhibit A - Structural Engineering services \$ 152,270

TOTAL Lump Sum Fee: \$202,770
2. REIMBURSABLE EXPENSES  
Reimbursable Expenses are in addition to compensation for Basic Services. Reimbursable expenses incurred by Design Workshop and consultants directly related to the project such as, but not limited to, travel, photography, telephone charges, video conference charges, and printing expenses shall be billed at Design Workshop's cost. Reimbursable expenses are estimated at \$6,000.
3. ADDITIONAL SERVICES  
Services in addition to those described above are to be compensated on a Time and Materials basis per Design Workshop's current published rate schedule. Additional services will include (but are not limited to) redesign of previously approved work, major revisions to program and/or expansion of scope of services. Whenever practical, changes, additions, or modifications to the scope of services shall be authorized by written change request; however, the absence of such a written change order shall not act as a bar to payment of fees due Design Workshop, provided the change was in fact approved and ordered by the Client.

## PAYMENT TERMS

1. This is a lump sum contract and will be billed monthly as a percentage completed for each phase of the work.
2. Invoices will be mailed from Design Workshop's office by the 10th of each month. Invoices are payable within 30 days of the date of billing. Invoicing shall be specific to each major task and will describe the completed portion of the services.

## ACCEPTANCE

1. This Agreement is entered into between Design Workshop, Inc. and (insert name of client), owner or reputed owner of the property to be benefited by Design Workshop's services.
2. If this contract meets with your approval, please sign below and return one (1) copy for our file.
3. If this agreement is not accepted within two (2) months from the date of receipt, the offer to perform the described services may be withdrawn and Design Workshop may renegotiate this proposal.
4. The Client agrees that they have read and understood the Contract Provisions attached hereto and incorporated herein by reference.

### DESIGN WORKSHOP, INC.

By:  Date: April 15, 2021  
Title: Principal

### APPROVED BY CLIENT:

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Title: \_\_\_\_\_

## **EXHIBIT “A”**

### **Scope of Services**

#### **Streetscape 84 – Pedestrian Underpass**

#### **City of La Vista**

### **Bridge Design Services**

#### **PROJECT DESCRIPTION**

The scope of services for this project involves engineering design services required to produce final construction plans and specifications for the following:

A new pedestrian underpass is to be designed passing under existing 84<sup>th</sup> Street in La Vista. The location of the underpass is near the existing Thompson Creek culvert under 84<sup>th</sup> Street. It is understood the underpass will consist of a single span bridge with landscaping “steps” adjacent to both abutments (Final concept and features to be determined). It is desired to carry Thompson Creek, currently carried by the 8’x8’ concrete box culvert, in an open channel through the underpass as a water feature. Upon exiting the underpass, the open channel is to let the storm water down to existing elevations through a series of falls and/or energy dissipaters. The scope for the pedestrian underpass design is independent of other features to be designed in coordination with the underpass; including but not limited to, 1) the trail through the underpass, 2) any required pedestrian railing along trail or open channel, 3) aesthetics for treating the “steps” adjacent to either abutments, or 4) connection with any potential overhead aesthetics or project enhancements. The foregoing four elements are to be addressed by Design Workshop as part of this proposal.

## **GENERAL PROJECT MANAGEMENT, FIELD INSPECTIONS AND MEETINGS**

### **General Project Management**

This task includes effort for coordination of staff, coordination with the City of La Vista, progress reports, invoices and overall structural design project management.

### **Field Inspections**

The Design Consultant will include effort to visit the project site to review design issues, confirm existing conditions, or meet with City representatives to discuss structural issues.

### **Meetings**

1. Owner Meetings. Design Consultant will meet with City of La Vista Representatives at the following events: kick off meeting (1), review conceptual renderings meeting(s) (2) and (1) final drawing meeting(s). The Design Consultant will be responsible for distributing meeting invitations, coordinating meeting locations, and preparing meeting minutes.
2. Meetings with Utilities. Two (2) Utility review meetings will be scheduled. Effort is also included for coordination via the phone and email.
3. Meetings with USACE. Two (2) design review meeting will be scheduled with the United States Army Corps of Engineers to review design intent for the conversion of the closed channel flow (existing concrete culvert) to an open channel flow through the underpass. If the open channel flow is not feasible or ruled out for other reasons, a meeting with USACE will be held to discuss options effecting the existing flow.

Within three working days after the close of each meeting and/or field trip, the Design Consultant shall prepare and submit to the State one copy of a report summarizing the discussions, decisions, and agreements reached.

### **Pedestrian Underpass Preliminary Design**

The first phase of preliminary design shall consist of producing schematic diagrams of the underpass, trail through the underpass, and open channel adjacent to trail. This phase of design will be presented as 2D schematic diagrams to help visualize the concept and gain feedback from City officials. Feedback and optimizations will be reviewed and added to preliminary design resulting in a second round of presentations of 2D schematic diagrams. Upon concept consensus, a final 3D rendering of the underpass will be developed for use in public meeting presentations and project web site.

The second phase of preliminary design involves the Design Consultant preparing a Bridge Design Data Sheet and Type, Size, and Location plans (TS&L) for the new bridge structure carrying 84<sup>th</sup> St. These Data Sheets and TS&L plans shall be submitted to the Nebraska Department of Transportation for their review and documentation of the new structure.

The Design Consultant shall prepare a general description/layout of the proposed bridge on the TS&L plan. This information shall include, but is not necessarily limited to the following:

#### **Sectional Elevation View of Bridge**

- 1) Span arrangement
- 2) Locations of substructure elements
- 3) Existing and/or design profiles of ground, roadways, railroads, etc. below and adjacent to bridge (where applicable).
- 4) Low girder/slab elevations
- 5) Grade elevations of bridge and other critical elevations
- 6) Top of pier footing elevations
- 7) Bottom of sheet pile or abutment wall elevation
- 8) Bottom of pile bent encasement elevation
- 9) H.W. Elevation (Q100)
- 10) General Plan View of Bridge
- 11) Span arrangement
- 12) Locations of substructure elements
- 13) Location of existing culvert drainage

- 14) Typical Cross Section of Bridge Roadway/Superstructure
- 15) Girder type designation
- 16) Girder spacing
- 17) Clear roadway width of bridge
- 18) Pier elevation view
- 19) Construction Phasing of Structure (Traffic Control shown on Roadway Sheets)

Show all hydraulic information as shown in the hydraulic data sheet. Show ordinary high water (OHW) elevation. Existing Profiles, New Grade Profile Sketch, Structure Location. The Bridge Design Data Sheet shall be done in accordance with the NDOT Bridge Office Policies and Procedures Manual. The Design Consultant retains electronic TS&L plot data for reproduction if necessary. All hydraulic effort will be coordinated with other hydraulic work associated with the Civic Center Park construction as it applies and/or impacts the conveyance of Thompson Creek through the underpass.

The Design shall be in conformance to “AASHTO Guide for the Development of Bicycle Facilities (2012 Edition), AASHTO Guide for the Planning, Designing, and Operation of Pedestrian Facilities, 1<sup>st</sup> Edition, AASHTO LRFD Bridge Design Specifications (8<sup>th</sup> Edition), the City of Omaha Standard Specifications for Public Works Construction (as directed), and the “NDOT, Standard Specifications for Highway Construction”.

1. **Data Collection and Review.** Gathering, reviewing and organizing design criteria and project input for the intended use of the pedestrian underpass.
2. **Roadway Horizontal Alignment.** The underpass will be constructed with the existing 84<sup>th</sup> St. horizontal alignment remaining unchanged.
3. **Roadway Vertical Alignment.** The underpass will be constructed with the existing 84<sup>th</sup> St. vertical alignment remaining unchanged.
4. **Limits of Construction.** This task includes efforts to create LOCs for the project. The Design Consultant will define and draft the limits of construction on the plan sheets. These limits are to be used to determine environmental impacts and right-of-way requirements.

5. **R.O.W.** Identify limits of any required takings, easements, and permanent easements. Should any Right of Way easements or taking be necessary, all property legal descriptions, ownership research, or negotiations shall be handled by others.
6. **Earthwork.** Determine earthwork balance factor. Calculate earthwork quantities and produce earthwork summary and plan notes.
7. **Open Channel Design** Develop preliminary geometrics of the proposed open channel under the bridge carrying Thompson Creek. Preliminary design shall be based from meetings with USACE considering the redirection of flow and out letting. Geotechnical evaluation of the embankment around the channel and global stability shall be investigated and establish acceptable conditions.
8. **Utility Coordination/Verification.** The Design Consultant will draft utilities on the plans that were not included in the preliminary plotting and for limited coordination with the utilities, to verify the location and type of utility. In addition, the Design Consultant will coordinate and schedule a Utilities meeting to identify and work through potential conflicts identified in the preliminary 30% plans. (City of La Vista is responsible to coordinate utility agreement negotiations with utilities should they be necessary).
9. **Construction Phasing/Detour Route/Temporary Roads.** The Design Consultant shall develop traffic phasing concepts to allow for two (2) lanes of traffic on 84<sup>th</sup> St. at all times during construction. The Design Consultant shall prepare a written description of the Construction Phasing. This phasing plan shall be submitted at the time of the first submittal.
10. **Erosion Control.** This task includes effort required to design and draft temporary erosion control measures to protect Thompson Creek and surrounding property during the construction period.
11. **Quantities/Estimates.** Develop and tabulate all of the preliminary quantities. Opinion of probable cost will be updated and submitted at the Preliminary Design (30%), Final Design (90%), and Final Design (100%). Estimate of probable cost will be

prepared by the Design Consultant using recent bid tabulations and other available information.

The submitted estimate will include costs/impacts to utility relocations or preservation practices associated with the construction of the underpass.

### **Final Bridge Design**

The Design Consultant shall prepare final bridge design plans of the structure for use in letting and construction.

- 1) The Design Consultant shall compute quantities according to the standard bid items in the NDOT Standard Specifications.
- 2) The Design Consultant shall prepare a list of all current standard special provisions that pertain to this project. In addition, the Design Consultant shall prepare special provisions for any bid item not in accordance with the NDOT Standard Specifications.
- 3) If any proprietary items are specified in the final design plans, the Design Consultant shall list at least three manufacturers in the plans and special provisions, or a general specification eliminating any reference to proprietary names.
- 4) Geotechnical consideration of settlement, soil capacity, and estimated pile lengths shall be investigated and provided in a Final Design Geotechnical Report for Bridge.
- 5) 90% Bridge Plan Submittal. The Design Consultant shall submit PDF plans for the 90% review when the design and detail check is complete, and a draft copy of the special provisions.
- 6) 100% Final Bridge Plan Submittal. The Design Consultant shall submit final drawings and final special provisions when all final corrections and quantity calculations are completed. The final plans shall have the seal and signature of a registered professional engineer licensed to practice in the State of Nebraska on all sheets of the final design plans. The Design Consultant shall submit one complete set of design calculations and one complete set of check calculations, including copies of any computer output used in the design and check calculations.

- 7) The Design Consultant shall do the design check calculations and check quantity calculations independent from the original design calculations and original quantity calculations. All check calculations are to be performed by a person of equal professional status as the one who performed the original calculations.
- 8) The Design Consultant shall show the names of the individuals preparing and checking the work, along with the date on each sheet of the original design, design check calculations, and quantity calculations and check quantity calculations. The Design Consultant shall make sure that all calculations are properly indexed, arranged in a logical and orderly manner.

### **Hydraulic Design**

The Design Consultant shall prepare final design plans in accordance with approved Preliminary Designs. This contract includes the final design for the reconstruction of the existing conveyance of Thompson Creek under 84<sup>th</sup> St. The existing 8'x8' concrete culvert is to be removed. A new conveyance system carrying the creek is to be designed to run through the underpass as an open channel system. Once through the underpass, the flow line of the watershed creek is to drop to established design elevations within the Civic Center Park. It is anticipated an energy dissipation drop structure will be required to achieve this drop of the flow line without negative scour impacts to the channel.

If the open channel conveyance of Thompson Creek was not approved during Preliminary Design, the Consultant will proceed with preservation and incorporation of the existing reinforced concrete culvert into the design. This includes the inspection of the existing culvert, proposed repairs to culvert, entrance/exit treatments, and coordination with the Civic Center Park project.

- 1) Preliminary Design. The Design Consultant shall prepare preliminary design plans for conveying Thompson Creek under 84<sup>th</sup> St. in an open channel system. The current flow elevation on the west side of 84<sup>th</sup> St. shall be held at the inlet to the system with gradual fall as the flow line passes under 84<sup>th</sup> St. Upon exit of the underpass, the

flowline shall be dropped to meet/accommodate design elevations for the pond in the Civic Center Park.

- 2) Coordination. Coordinate with City of La Vista regarding design issues interrelated to the Civic Center Park project and the 84<sup>th</sup> Streetscape project to ensure hydraulic design will perform as intended.
- 3) Permitting. Initiate discussions with USACE to review project plans regarding Thompson Creek. Conduct a preliminary meeting with USACE to discuss 404 application content. Prepare and submit USACE permit application for bridge construction and letdown structure in connection to impacts to Thompson Creek.
- 4) Final Design. Prepare final plans for letting and construction of the open channel waterway system through the underpass and the letdown down structure on the east outlet side.

### **DELIVERABLES**

1. The Design consultant shall provide acceptable final plans, specifications and estimates (PS&E) for use in a bid letting and construction of the project. The Design Consultant shall seal and sign the final plans and applicable deliverables in accordance with the Nebraska Engineers and Architects Regulation Act.
2. Plans and special provisions shall be developed in compliance with the manuals, guidelines and current construction specifications.
3. Design Consultant shall submit design plans at the following stages;
  - Concept Rendering (TS&L)
  - Preliminary Design – 30% Completion (R.O.W., Utilities Impacts)
  - 90% Completion (Structural Review)
  - 100% Final Design
4. Provide bridge load rating and documentation to submit to NDOT as to place bridge into service, which may include: LRSS, SI&A, and other pertinent DOT forms/procedures.

### **BID PHASE SERVICES**

- Electronic file transfer to Contractors
- Respond to Contractors' questions
- Supplemental documentation

**LIMITED CONSTRUCTION PHASE SERVICES**

The Design Consultant shall have limited construction engineering review. The Consultant shall review all detailed shop drawings required to be submitted for review. This review is for general conformance with design concept only. The Design Consultant shall as a minimum:

- Review the shop drawings for conformance with the geometry of the bridge and channel structure(s).
- Review all main and detailed material to assure they conform to the requirements of the contract plans and specifications.
- Return each reviewed shop drawing electronically to the Contractor and City of La Vista representative. A stamp showing the level of acceptance must be placed on each shop drawing sheet. The reviewer's initials and the date of review must be indicated on the stamp. Each sheet must also bear the Project No., Control No., and Structure No. if not already shown. Return shop drawings within two weeks after receiving them. Make all notations in red.

The Design Consultant shall only do the following items upon request from the City of La Vista representatives:

- Attend the Pre-Construction Conference.
- Respond to fabrication and field questions of proposed changes or value engineering.
- Evaluate conflicts involving unforeseen construction issues.

| <b><u>Design Completion Dates</u></b> | <b><u>Weeks from NTP</u></b> |
|---------------------------------------|------------------------------|
| Notice to Proceed (NTP)               | TBD                          |
| Submit Preliminary Schematics         | 8 weeks                      |
| Conduct Preliminary USACE Meeting     | 10 weeks                     |
| Submit Preliminary TS&L plans         | 14 weeks                     |
| Submit USACE Permitting Applications  | 14 weeks                     |
| Submit plans for 90% review           | 26 weeks                     |
| Submit 100% plans                     | 30 weeks                     |
| Letting                               | TBD                          |