



Bismarck Airport

DATE: 1/18/2022

FROM: Gregory Haug, Airport Director

ITEM:

Consider Amendment 3 to April 27, 2021 Agreement with Kadrmass, Lee & Jackson (KLJ) for Wetland Phase 7 Project.

REQUEST:

Consider Amendment 3 to April 27, 2021 Agreement with Kadrmass, Lee & Jackson (KLJ) for Wetland Phase 7 Project.

Please place this item on the January 25, 2022 City Commission meeting agenda.

BACKGROUND INFORMATION:

On April 27, 2021 the Board of City Commissioners approved an agreement with KLJ for the Wetland Phase 7 Project. After experience with Wetland Phase 5/6 work Airport staff desires that KLJ do construction survey for the project rather than verify the survey work of the General Contractor or its sub contractor. As a result, staff with the assistance of KLJ prepared and submitted a Modification to Construction Standards to the Federal Aviation Administration (FAA) to allow the Engineer (KLJ, on behalf of the Owner) to set up the control survey for the project and perform construction surveying on the project.

The FAA has approved the Mod to Standards request to have KLJ Engineering perform the construction surveying on the project. As a result, KLJ has modified the specifications to incorporate the FAA approved survey Modification to Construction Standards removing the construction surveying from the general contractor tasks. The exception for construction survey is that the General Contractor will be responsible for Pilot Tube Auger boring and Micro tunneling line and grade under Taxiway C so that risk for those boring operations stay with the general contractor. The Wetland Removal Phase 7 project was advertised for bids starting on January 7, 2022.

This Amendment 3 removes original hours to verify general contractor survey and adds construction survey as allowed by the FAA approved modification to standards. Amendment 3 adds \$189,430.59 to KLJ's Design Services Contract Task 3

Construction Observation and Records for the construction survey. This adjusts the agreement total to \$1,847,018.25. The cost will be accommodated in the approved project budget. This action essentially moves the survey cost from the general contractor to KLJ. The KLJ hourly work rate costs for survey did not change from those previously negotiated. The amendment uses those rates the adds sufficient hours to complete the construction survey. The cost appears reasonable.

RECOMMENDED CITY COMMISSION ACTION:

Approve Amendment 3 to April 27, 2021 Agreement KLJ for Wetland Phase 7 Project. .

STAFF CONTACT INFORMATION:

Greg Haug | Airport Director, 355-1808 or ghaug@bismarcknd.gov

ENCLOSURES:

1. Amendment 3 to April 27, 2021 Agreement with KLJ.



Amendment to Agreement for Professional Services

Project # 2005-01828

Amendment # 3

Background Data

- a. Effective Date of Agreement for Professional Services April 27, 2021
- b. Engineer KLJ Engineering LLC
- c. Owner City of Bismarck
- d. Project Removal of Wetlands to Reduce Wildlife Attractants (Phase 7)
- e. This Part of the Project Task 3 - Construction Observation and Records

Nature of Amendment (check all that apply)

- Additional services to be performed by Engineer
- Modifications to services of Engineer
- Modifications to responsibilities of Owner
- Modifications to payment to Engineer
- Modifications to time(s) for rendering Services

Description of Modifications

The Federal Aviation Administration (FAA) approved the request for a Modification to FAA Construction Standards for AIP project number 3-38-0003-065-2021 for Removal of Wetlands to Reduce Wildlife Attractants Phase 7 for mid-field drainage of Runway 13-31, Taxiway C, and Taxiway D at the Bismarck Airport. The approved modification allows the Engineer's surveyors (on behalf of the Owner) to complete the construction survey instead of the Contractor's surveyors completing all layout required for the construction of the work. The additional survey task items required are a shown below and in the attached Attachment B.

Construction Staking - General. KLJ will establish horizontal and vertical control, as well as all layout required for the construction of the work and final grade verification. The Contractor shall furnish any additional staking required by their forces to accomplish the work.

A Professional Land Surveyor shall utilize an estimated ninety-three (93) hours to coordinate and supervise survey crews, prepare survey data, and prepare reports.

- **Control survey to establish control points for the project.** It is estimated that thirty (30) hours shall be required by a 2-person survey crew.
- **Maintaining control points.** It is estimated that fifteen (15) hours shall be required by a 2-person survey crew.
- **Clearing and grubbing perimeter staking.** It is estimated that thirty (30) hours shall be required by a 2-person survey crew.
- **Survey and volume calculations for all topsoil stockpiles, temporary millings stockpiles, waste / borrow excavation areas, and waste / borrow excavation stockpiles.** It is estimated that twenty-five (25) hours shall be required by a 2-person survey crew.
- **Location of Construction Safety and Traffic Control items including Crane Locations.** It is estimated that forty (40) hours shall be required by a 2-person survey crew.

- **Utility installation item locations.** It is estimated that five (5) hours shall be required by a 2-person survey crew.
- **Survey of finished subgrade and finished topsoil grades.** It is estimated that twenty (20) hours shall be required by a 2-person survey crew.
- **Final areas of seeding and mulching.** It is estimated that twenty-five (25) hours shall be required by a 2-person survey crew.
- **Rough grade slope stakes and offset hub line at 100-foot stations or closer as determined by the Engineer.** It is estimated that forty (40) hours shall be required by a 2-person survey crew.
- **Drainage swales slope stakes and flow line blue tops at 50-foot stations or as directed by the Engineer.** It is estimated that seventy (70) hours shall be required by a 2-person survey crew.
- **Line and invert grades for drainage culverts and end sections.** It is estimated that twenty (20) hours shall be required by a 2-person survey crew.
- **Drain lines, cut stakes and alignment on 25-foot stations, inlet and manholes.** It is estimated that sixty (60) hours shall be required by a 2-person survey crew.
- **Subgrade Blue-tops Roadways - minimum 3 per station.** It is estimated that forty (40) hours shall be required by a 2-person survey crew.
- **Aggregate Blue-tops Roadways - minimum 3 per station.** It is estimated that forty (40) hours shall be required by a 2-person survey crew.
- **Sawcut locations as shown on the plans.** It is estimated that eight (8) hours shall be required by a 2-person survey crew.
- **Edge of Pavement hubs and tacks (for stringline by Contractor) at 100-foot stations.** It is estimated that twenty (20) hours shall be required by a 2-person survey crew.
- **After finish paving operations at 50-foot stations.** It is estimated that fifteen (15) hours shall be required by a 2-person survey crew.
- **Centerline control points will be set and grades provided for string line grade control of asphalt milling & placement.** It is estimated that ten (10) hours shall be required by a 2-person survey crew.
- **Shoulder and safety area blue tops at 50-foot stations and at all break points with maximum of 50 foot offsets.** It is estimated that thirty (30) hours shall be required by a 2-person survey crew.
- **Fence lines at 100-foot stations.** It is estimated that five (5) hours shall be required by a 2-person survey crew.
- **Electrical and communications system locations, lines and grades including but not limited to duct runs, connections, fixtures, signs, lights, pull boxes.** It is estimated that ten (10) hours shall be required by a 2-person survey crew.
- **Storm improvement survey verification / record information is required to be submitted within 48 hours of installation (see Plan Note Items D-701 and D-751).** It is estimated that eighty (80) hours shall be required by a 2-person survey crew.
- **Dewatering Survey.** It is estimated that one hundred (100) hours shall be required by a 2-person survey crew.
- **Pilot Tube Guided Auger Boring - Ground Movement Monitoring Plan.** It is estimated that fifty (50) hours shall be required by a 2-person survey crew.
- **Microtunneling - Ground Movement Monitoring Plan.** It is estimated that eighty (80) hours shall be required by a 2-person survey crew.
- **Re-survey all paved surface monitoring points included in the original Ground Movement Monitoring Plan within ten (10) calendar days prior to Final Inspection and submit this information to the Engineer to verify the absence of settlement prior to final acceptance.** It is estimated that forty (40) hours shall be required by a 2-person survey crew.

For the pilot tube auger boring and Microtunneling, the Contractor will be responsible for providing line-and-grade control by a professional Land Surveyor licensed in the State of North Dakota who has prior experience in similar projects.

Agreement Summary (Task 2 - Preliminary & Design Services)

a. Original Agreement amount	<u>\$284,352.35</u>
b. Net change for prior Amendments	<u>\$64,815.16</u>
c. This Amendment amount	<u>\$0.00</u>
d. Adjusted Agreement amount	<u>\$349,167.51</u>

Agreement Summary (Task 3 Construction Observation and Records)

a. Original Agreement amount	<u>\$1,258,606.85</u>
b. Net change for prior Amendments	<u>\$0.00</u>
c. This Amendment amount	<u>\$189,430.59</u>
d. Adjusted Agreement amount	<u>\$1,448,037.44</u>

Agreement Summary (Task 14 - FAA Project Closeout Report)

a. Original Agreement amount	<u>\$49,813.30</u>
b. Net change for prior Amendments	<u>\$0.00</u>
c. This Amendment amount	<u>\$0.00</u>
d. Adjusted Agreement amount	<u>\$49,813.30</u>


Agreement Summary (entire Agreement)


a. Original Agreement amount	<u>\$1,592,772.50</u>
b. Net change for prior Amendments	<u>\$64,815.16</u>
c. This Amendment amount	<u>\$189,430.59</u>
d. Adjusted Agreement amount	<u>\$1,847,018.25</u>

Engineer and Owner hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is January 25, 2022.

Owner City of Bismarck
Signed _____
Name Steve Bakken
Title President, Board of City Commissioners
Date _____

Attest _____
Name _____
Title _____

Engineer KLJ Engineering LLC
Signed 
Name Mark Anderson, PE
Title VP, Environment & Public Works
Date 1/17/2022

Attest 
Name Tom Neigum, PE
Title Project Manager



RMASE: Construction Administration / Construction Observation
 Attachment B3 to Provide Construction Surveying Services

Staff Name	Principal Engineer	Senior Project Manager	Engineering Technician IV	Associate Engineer	Engineer in Training II	Engineer in Training I	CAD Technician II	Environmental Planner III	Senior Technical Advisor	Project Assistant II	Project Controls Specialist I	Engineer	Job Writter	Senior Engineer	2-Phase Survey Crew	Professional Land Surveyor	Engineer in Training I	Total Direct Labor Cost
Mark Anderson	Tom Nelson	Tony Thorne	TBD	Clair O'Leary	TBD	Mike Reddick	Keith Jones	US Floor	Justin Hyndman	Jack White	Casey							131,641.00
Construction Surveying (Ongoing)	4	14																2,354.00
Control survey to establish Control points for the project																		2,070.00
Maintain control points																		1,815.00
Survey and relieve calculations for all tapes (includes temporary millage stonemans, vendor / narrow																		3,076.00
Locations of Controlable Utility and Staff Control items including Crane Locations																		1,752.00
Utility installation items including																		2,760.00
Survey of finished (topgrade and finished) points																		345.00
Final areas of staking and marking																		1,880.00
Rough grade lines (stakes and other full line at 100' intervals to clear as determined by the																		2,721.00
Engineer																		2,760.00
Determine slopes, close notes and flow line Blue tops at 50' foot stations or as directed by the Engineer																		4,030.00
Line and lower 6-pipes for drainage columns and curb utilities																		1,387.00
Draw lines, set stakes and alignment on 50-foot stations, set and mark																		4,181.00
Set-up blue-top theodolite - minimum 3 per station																		2,760.00
Align and stake out roadway - minimum 3 per station																		1,815.00
Align and stake out utility lines																		1,815.00
Edge of pavement backs and staked (for complete by Contractor) at 100-foot stations																		1,387.00
Align finish paving stations at 50-foot stations																		1,031.00
Concrete control points, with set and grades provided for setting line grade controls of asphalt milling																		660.00
B statement																		2,070.00
House lines at 100-foot stations																		1,410.00
Electronic and communication system (telescope, Tripod and prisms, including set and limited to about 100																		660.00
connections. Factors, tape, sights, pull boxes																		5,320.00
of surveying (survey professional) / (vector information is required) to be submitted within 48 hours.																		9,000.00
Construction Survey																		1,450.00
From Total Station Laser Leveling, Ground Movement Monitoring Path																		5,320.00
Micro-surveying - Ground Movement Monitoring Path																		5,320.00
Re-survey of paved surface monitoring points included in the original Ground Movement Monitoring																		2,760.00
Path with (3) tripod sets prior to final vegetation																		2,760.00
Subtotal																		57,662.00
Total Hours																		352,624.42
Hourly Rate																		24,632.96
																		574.21
Subtotal																		320,433.99
																		57,662.00
Indirect Labor Total (LRSSE Overhead Item)																		152,624.42
Direct and Indirect Labor Total																		24,632.96
Fixed Fee (LFR)																		574.21
Cost of Facilities (LFR)																		
Subtotal																		320,433.99
Expense Total																		

Category	Expense	Price	Rate
Air Cleaner	per trip		
Per Diem	per day		
Vehicle Usage	per day		
Materials and Supplies			
Other Expenses			