

**AMENDMENT NO. 3
TO
AGREEMENT BETWEEN THE CITY OF COLUMBIA, MISSOURI
AND WEAVER CONSULTANTS GROUP, LLC

COLUMBIA SANITARY LANDFILL HORIZONTAL EXPANSION
PERMITTING PROJECT – PHASE II**

THIS AMENDMENT (“Amendment”) by and between the City of Columbia, Missouri (“City”) and **Weaver Consultants Group, LLC**, (“Engineer”) is entered into on the date of the last signatory noted below (the “Effective Date”).

Whereas, The City and Engineer entered an agreement for landfill horizontal expansion permitting on August 7, 2019, and the first amendment to the agreement on February 5, 2020 and the second amendment to the agreement on October 21, 2020 (collectively “Agreement”); and

Whereas, the City and Engineer agree that certain additional services not contemplated at the time the Agreement was entered are necessary for completion of the mapping.

Therefore, the City and Engineer agree to further amend the Agreement as indicated herein.

1. Paragraph 2.1.1 of the Agreement is amended to add the following sentence:

In addition, perform professional engineering services set forth in Attachment F – “Supplemental No. 3 Scope of Additional Engineering Service,” attached to Amendment No. 3 to the Agreement.

2. Paragraph 4.6 of the Agreement is amended to remove “**David Sorrell, Assistant Director of City Utilities**” and replace with “**Tom Ratermann, Assistant Director of Utilities – Solid Waste**”.
3. Paragraph 5.3 of the Agreement is amended to remove “Services shall be started within 10 calendars days of Notice to Proceed and completed within 640 calendar days from the issuance of the Notice to Proceed.”
4. Paragraph 6.1.1.6 of the Agreement is amended to read as follows:

6.1.1.6 Total payment for Scope of Basic Services and all other expenses and costs to CITY under this Agreement and described herein **shall not exceed \$1,802,162.00.**
5. Paragraph 7.16 of the Agreement is amended to read as follows:

7.16 Agreement Documents

This Agreement includes the following exhibits, which are incorporated herein by reference:

Exhibit	Description
A	Scope of Work
B	Hourly Fee Schedule
C	Work Authorization Affidavit
D	Supplemental No. 1 Scope of Additional Engineering Service
E	Supplemental No. 2 Scope of Additional Engineering Service
F	Supplemental No. 3 Scope of Additional Engineering Service

In the event of a conflict between the terms and conditions of this Agreement and any attachment hereto, the terms contained in this Agreement shall prevail and the terms contained in any attachment shall subsequently prevail in the following order: A, F, E, D, B, C.

6. The terms and conditions of the Agreement are modified as specifically set forth above. All other provisions of the Agreement, to the extent not inconsistent with this Amendment, remain in full force and effect.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, City and Engineer have executed this Amendment No. 3 on the day and year last written below.

CITY OF COLUMBIA, MISSOURI

By: _____
De'Carlton Seewood, City Manager

Date: _____

ATTESTED BY:

Sheela Amin, City Clerk

APPROVED AS TO FORM:

Nancy Thompson, City Counselor / ek

CERTIFICATION: I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. **55716588-604990 RF061**, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

By: _____
Matthew Lue, Director of Finance

WEAVER CONSULTANTS GROUP, LLC

By: Michele A Clark

Printed name: Michele Clark

Title: Principal

Date: 11/21/24

ATTEST:

By: Dustin Drachen

Name: ~~4/22~~ Dustin Drachen



October 28, 2024

Mr. Adam White
Landfill Superintendent
City of Columbia Landfill
5700 Peabody Road
Columbia, Missouri 65202

Re: **2024 Proposal for Additional Drilling for Detailed Site Investigation
Columbia Sanitary Landfill Horizontal Expansion Permitting Project – Phase II (Agreement
signed August 7, 2019)**

Dear Mr. White:

Weaver Consultants Group (WCG) has prepared this estimate of cost to cover additional drilling required by the Missouri Department of Natural Resources Geologic Support Program (MDNR-GSP) to obtain additional geologic site information for the Detailed Site Investigation (DSI) occurring at the City of Columbia Sanitary Landfill. The additional effort includes preparing an addendum to the approved DSI Work Plan, teleconferences with MDNR-GSP, contracting a qualified driller, drilling three (3) geotechnical borings, conducting two (2) packer tests, field oversight of the drilling and testing, and incorporation of the findings to the DSI Report.

BACKGROUND

MDNR-GSP held a meeting with WCG and the City officials at the City of Columbia Sanitary Landfill on July 24, 2024, to collaborate and review relevant core samples stemming from MDNR-GSP review of the DRAFT DSI Report submitted electronically to MDNR-GSP on June 19, 2024. During the meeting and review, MDNR-GSP raised concerns regarding core samples B-30, B-42, and B-78. MDNR-GSP indicated that two additional packer tests within the defined confining unit were needed to sufficiently characterize the upper hydrogeographic unit. MDNR-GSP also raised concerns over the accuracy of the approved single and double packer test water loss measurements using a 35-gallon polyethylene drum.

DEFINED SCOPE OF WORK

The proposed boring locations are shown on the attached **Figure 1**. The purpose of the investigation is to clarify anomalous stratigraphic findings, recover complete core samples, and perform additional packer testing to confirm presence of the confining unit above the upper aquifer. WCG will complete additional geotechnical borings (B-30A, B-42A and B-78B) at the approximate elevations and depths shown in **Table 1** below. WCG anticipates the investigation will begin with the advancement of boring B-30A to determine the structure and stratigraphy of the central area of the proposed expansion. The total drilling footage is

approximately 190 feet with the borings extending between 690 feet above mean sea level (ft-amsl) and 733 ft amsl.

Table 1 – Proposed Geotechnical Borings

Proposed Boring	Approx. Ground Elevation (ft-amsl)	Approx. Target TD Elevation (ft-amsl)	Estimated Drill Depth (ft-bgs)
B-30A	820	690	130
B-42A	760	730	30
B-78B	763	733	30

WCG anticipates two packer test intervals will be completed in B-30A and B-42A to verify the presence and thickness of the confining unit at the central portion and the western boundary of the site. More information on each proposed geotechnical boring below:

- Borehole location B-30A will be drilled into the Burlington – Keokuk Limestone Formation which was encountered at approximately 715 ft-amsl based in the vicinity of the proposed location. One packer test will be performed to delineate the upper aquifer and proposed confining unit. The estimated confining unit is about 68-101.9 feet below ground surface based on B-30 logs.
- Proposed borehole location B-42A will be drilled to the top of Burlington – Keokuk Limestone Formation previously encountered at approximately 733 ft-amsl in the vicinity of the proposed location. An additional packer test will be performed to verify the thickness of the proposed confining unit between approximately 22-30 ft bgs based on B-42 log.
- Proposed borehole location B-78B will be drilled to the top of the Burlington – Keokuk Limestone Formation to verify thickness of the confining unit and further characterize the area.

WCG will provide a State registered geologist to direct the drilling process and interpret the data. WCG will collect the core samples and box and store the core samples, define geological formation, document structural and stratigraphic variation on the boring log and oversee packer testing. In addition, WCG will log core samples from the drilled boreholes. MDNR-GSP staff will likely be on hand to validate the field packer test results to confirm that the rock cores meet the less than 1×10^{-6} cm/sec permeability requirement.

WCG will analyze data gathered during the supplemental DSI investigation. Data will include boring logs, packer testing, and core locations. Data from the DSI will identify the presence or absence of a confining

layer, which is a geologic layer exhibiting a hydraulic conductivity of less than 1×10^{-6} cm/s. The data will be incorporated into the Draft DSI Report previously submitted to MDNR-GSP on June 24, 2024.

ESTIMATED COSTS

WCG estimates that the above scope of services in the tasks above can be completed for **\$90,825**. The estimate is based on rates provided in the Phase III contract with City of Columbia Utilities. Cost breakdown is provided in **Attachment A**.

The drilling costs assume:

- A potable water supply will be provided near the drilling locations and can be accessed with a drilling support truck,
- The drilling locations are accessible and level for a drill rig and support vehicles, and
- The landfill will provide clearing and leveling at each drill pad location as needed.
- Utilities around drilling location will be marked.

Since the need for additional drilling requirements were communicated by MDNR-GSP, and a change in the field packer testing output was recommended, WCG has chosen Environmental Works Inc. (EWI) to be contracted to perform the boring and packer testing. Choice of driller was determined from input provided by MDNR-GSP.

WCG requested an estimate of costs from EWI to complete the additional drilling. The estimated cost to complete the additional drilling, drill log and packer testing in the bedrock is **\$47,750**. EWI's proposal is presented in **Attachment B**. EWI estimates the work to be performed over 5 days at a daily rate. If work is completed sooner, the City will only be invoices for daily work performed. Conversely, if additional days are needed to complete the work, a revised cost estimate may be needed. If WCG anticipates this, it will immediately be communicated to the City.

WCG's anticipated costs for the DSI field oversight, preparing cross-section and maps and revising the DSI Report for resubmittal is **\$43,075**.

Upon approval of the Addendum submitted October 11, 2024, the additional field investigation will be initiated. If preliminary cores and packer testing results do not show the presence of a confining layer in the bedrock at the proposed boring locations, WCG will make contact with the City immediately and discuss any changes to the supplemental field investigation.

Mr. Adam White
October 28, 2024
Page 4

WCG appreciates the opportunity to work with the City of Columbia on this important project. Please contact myself or Dustin Thoenen if you have any questions or need additional information.

Sincerely,
Weaver Consultants Group, LLC



Olufeyisayo Ilesanmi, P.G.
Project Geologist



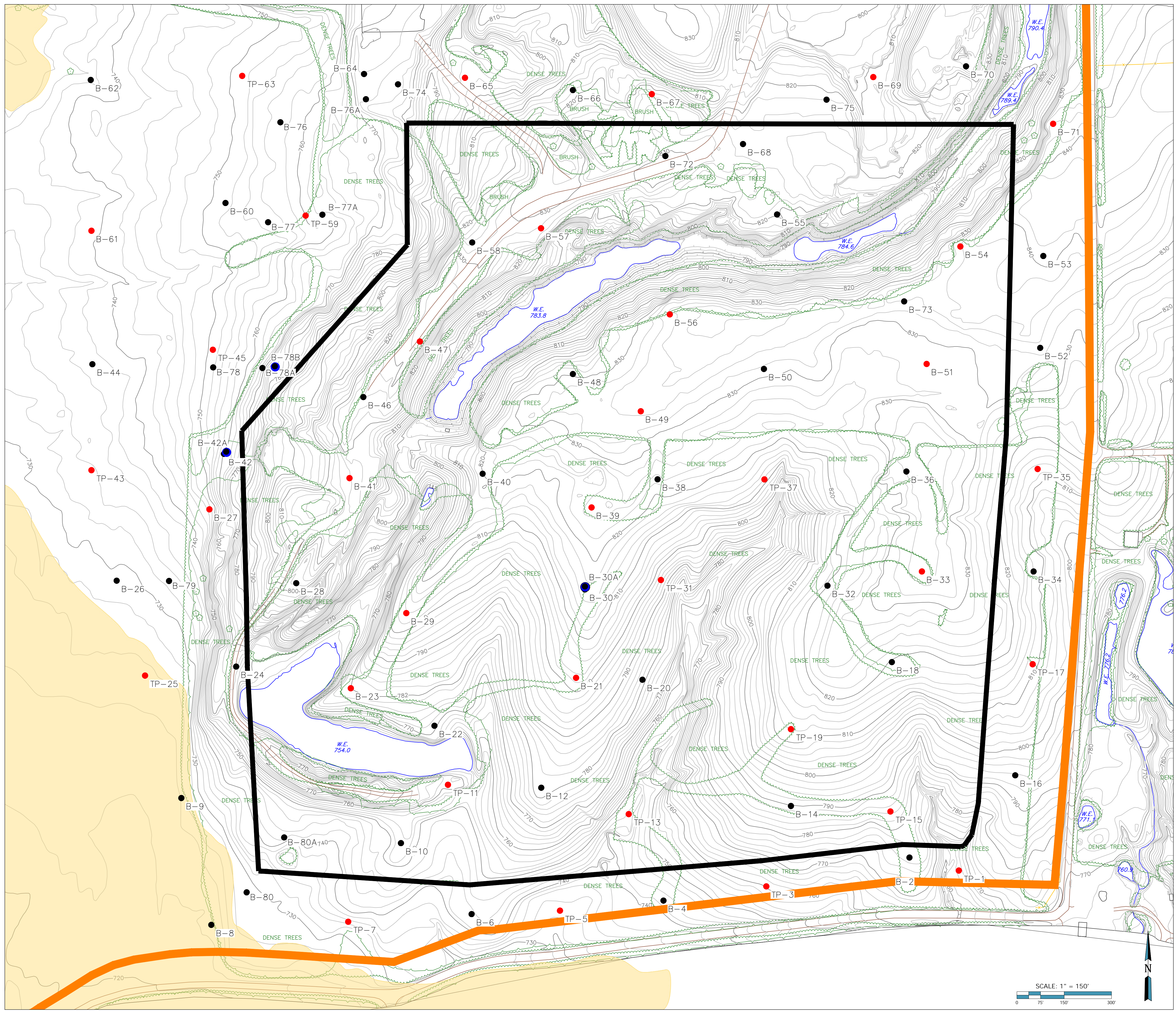
Dustin Thoenen, P.E.
Senior Project Manager

Attachments:

- Figure 1 - Supplemental Boring Layout
- Attachment A - Cost Breakdown
- Attachment B - EWI Proposal

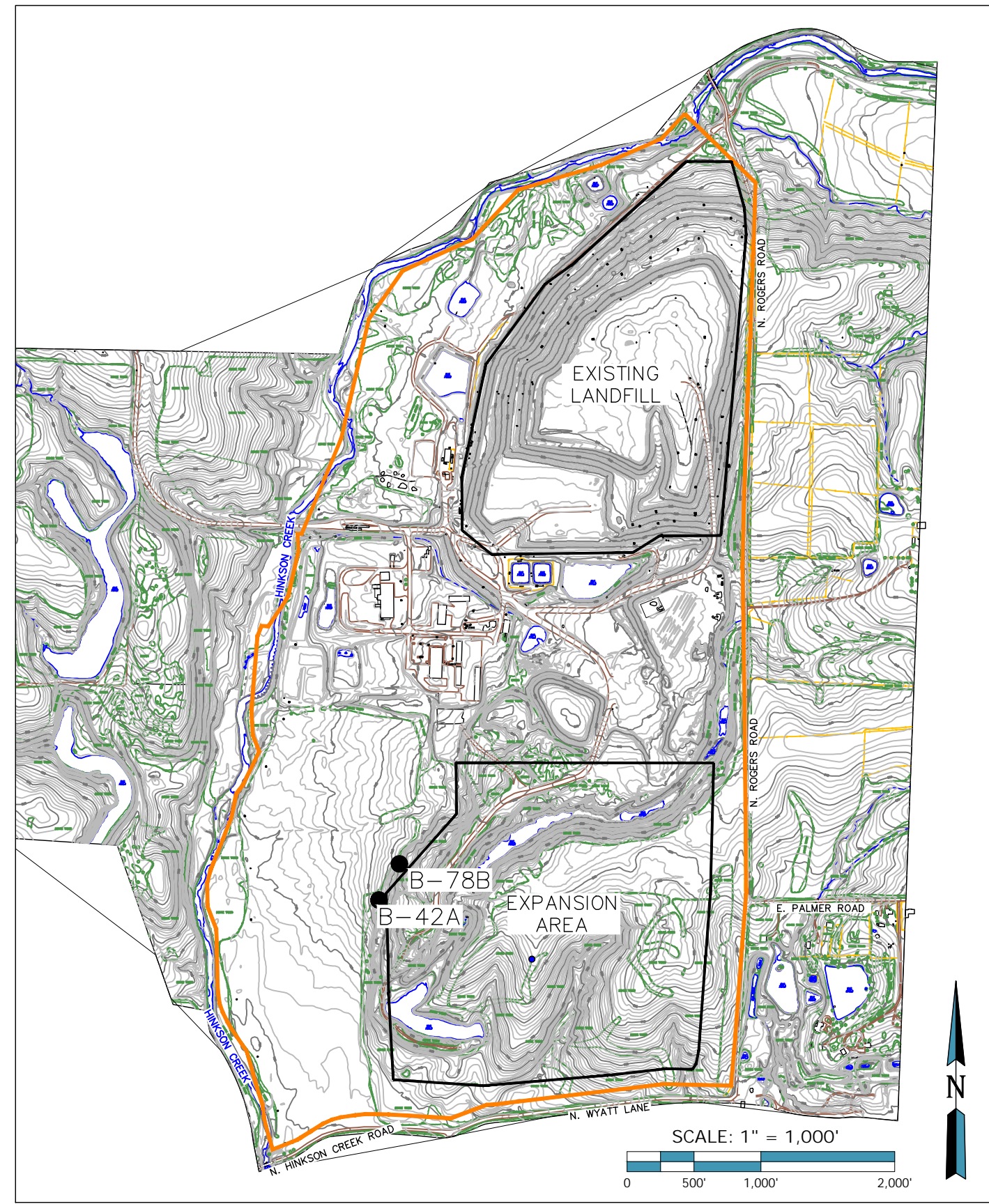
Figure 1 – Proposed Boring Locations

I:\PROJECTS\City of Columbia\Detailed Site Investigation\2024 DS Report\Figures\DWG\Boring Locations.dwg; V:\COX\1985\eland\October 8, 2024



- LEGEND:**
- APPROXIMATE PROPERTY BOUNDARY
 - PROPOSED SOLID WASTE BOUNDARY
 - AERIAL CONTOUR
 - ROAD
 - TREES/BRUSHLINE
 - FENCE
 - WATER
 - FLOODPLAIN
 - SOIL \ UNCONSOLIDATED BORING \ TEST PIT
 - ROCK BORING
 - PROPOSED ADDITIONAL BOREHOLE LOCATION

- NOTES:**
1. AERIAL DATED JANUARY 10, 2022.
 2. BORINGS COMPLETED BETWEEN MAY 2019 AND NOVEMBER 2022.



PREPARED FOR:
 DRAFT
 RELEASED FOR BID
 APPROVED FOR CONSTRUCTION
 CLIENT APPROVAL BY: _____
 OTHER: _____

BORING LOCATIONS
 FOR EXTENSION AREA
 2024 DETAILED SITE INVESTIGATION
 CITY OF COLUMBIA LANDFILL
 COLUMBIA, MISSOURI

No.	DATE	REVISION DESCRIPTION	BY

Weaver Consultants Group

WEAVER CONSULTANTS GROUP
 6301 EAST HIGHWAY 40
 COLUMBIA, MISSOURI 65201
 (888) 660-0346
 www.wcgrp.com

REUSE OF DOCUMENTS
 This document, and the designs incorporated herein, as an instrument of professional service, is the property of Weaver Consultants Group, and is not to be used in whole or in part, without the written authorization of Weaver Consultants Group.

DRAWN BY: DI
 REVIEWED BY: FY
 DATE: 10/07/2024
 FILE: 2101-300-DWG
 CAD: Boring Locations.dwg

FIGURE 1

Attachment A – Cost Breakdown

City of Columbia Supplemental Field Investigation and DSI Re-Submittal Cost Breakdown

Task	Professional Staff	Quantity	Unit	Rate	Total
Draft and Submit Work Plan Addendum	Principal (Clark)	2	hr	\$ 223.00	\$ 446.00
	Senior Project Manager (Thoenen)	4	hr	\$ 174.00	\$ 696.00
	Project Geologist/Engineer (Ilesanmi, Mohommad)	24	hr	\$ 127.00	\$ 3,048.00
	Admin	2	hr	\$ 71.00	\$ 142.00
SUBTOTAL					\$ 4,332.00
Sub-Contractor Communication, Contracting, and Management	Principal (Clark)	2	hr	\$ 223.00	\$ 446.00
	Senior Project Manager (Thoenen)	3	hr	\$ 174.00	\$ 522.00
	Staff Engineer (Ofei)	2	hr	\$ 117.00	\$ 234.00
	Project Geologist (Ilesanmi)	12	hr	\$ 127.00	\$ 1,524.00
	Admin	3	hr	\$ 71.00	\$ 213.00
SUBTOTAL					\$ 2,939.00
Drilling Oversight & Core Log, Land Surveying	Principal (Clark)	1	hr	\$ 223.00	\$ 223.00
	Senior Project Manager (Thoenen)	2	hr	\$ 174.00	\$ 348.00
	Project Geologist - Field (Mohommad)	59	hr	\$ 127.00	\$ 7,493.00
	Project Geologist - PM (Ilesanmi)	21	hr	\$ 127.00	\$ 2,667.00
	Suveying	10	hr	\$ 155.00	\$ 1,550.00
	Truck	5	days	\$ 140.00	\$ 700.00
	Admin	1	hr	\$ 71.00	\$ 71.00
SUBTOTAL					\$ 13,052.00
Revise DSI Maps & Cross Section, Data Analysis	Principal (Clark)	1	hr	\$ 223.00	\$ 223.00
	Senior Project Manager (Thoenen)	4	hr	\$ 174.00	\$ 696.00
	Project Geologist (Ilesanmi)	35	hr	\$ 127.00	\$ 4,445.00
	Staff Engineer (Ofei)	25	hr	\$ 117.00	\$ 2,925.00
	Admin	1	hr	\$ 71.00	\$ 71.00
SUBTOTAL					\$ 8,360.00
Update, Revise and Submit DSI Report	Principal (Clark)	4	hr	\$ 223.00	\$ 892.00
	Senior Project Manager (Thoenen)	10	hr	\$ 174.00	\$ 1,740.00
	Project Geologist/Engineer (Ilesanmi)	80	hr	\$ 127.00	\$ 10,160.00
	Report Production	3	each	\$ 250.00	\$ 750.00
	Shipping	4	each	\$ 35.00	\$ 140.00
	Admin	10	hr	\$ 71.00	\$ 710.00
SUBTOTAL					\$ 14,392.00
WCG Subtotal					\$ 43,075.00
Sub-Contractor Drilling	Total Cost estimates (EWI)				\$ 47,750.00
Additional For DSI Re-Submittal TOTAL					\$ 90,825.00

Attachment B – EWI Proposal



Environmental Works, Inc.

LOCATIONS ACROSS THE CENTRAL US

1455 E. Chestnut Expressway, Springfield, MO 65802
417.890.9500 | www.environmentalworks.com

Drill Rig Type: Sonic

Rig Setup: Track/ Truck

Scope: 1 Boring to approx 130', two to approx 30'/ Packer Testing 6 Zones

PROJECT PROPOSAL

Date:	10.21.24
Company:	Weaver Consulting Group
Contact:	Feyi Ilesanmi
Email:	filesanmi@wcgrp.com
Street Address:	6301 East HWY AB
City/State/Postal:	Columbia, MO 65201
Tel:	888.6660.0346
Cell:	573.606.0113
Project:	Columbia MO Landfill Investigation
Street Address:	5700 Peabody Rd
City/State/Postal:	Columbia, MO 65201
Estimated Duration:	5 Days

No.	Item	Unit	Quantity	Unit Price	Unit Total
1	Mobilization/ Demobilization	LS	1	\$ 6,000.00	\$ 6,000.00
2	Core Drill and Crew- No Overburden Sampling Required	DY	5	\$ 4,500.00	\$ 22,500.00
3	Packer/ Flow Technician	DY	5	\$ 1,500.00	\$ 7,500.00
4	Skid Steer Rental, Delivery and Fuel	WK	1	\$ 2,750.00	\$ 2,750.00
5	Packer, Flow System with Backup Packer- Rental	LS	1	\$ 3,500.00	\$ 3,500.00
6	Boring Backfill and Surface Patch	Ft	192	\$ 5.00	\$ 960.00
7	Per Diem with Driller, Assistant and Tech	DY	5	\$ 750.00	\$ 3,750.00
8	PM Time, Reporting Time (If needed or requested)	HR	5	\$ 125.00	\$ 625.00
9	Decon pad and heated pressure washer	LS	0	\$ 1,250.00	\$ -
10	Boring Report	EA	1	\$ 165.00	\$ 165.00
Total Cost Estimate:					\$ 47,750.00

Prepared By: Daniel Yoakum

E-mail: dyoakum@environmentalworks.com

Phone: 913.333.1853



Assumptions:

Work will be completed during standard business hours including weekend work as needed - 14/7 work schedule is requested
EWI can provide GPR private utility locate for additional cost, Hand augering will be attempted prior to drilling
EWI is not responsible for damaged utilities or unmarked locations
EWI assumes water is available on site and free of charge to EWI
Access to borehole locations will not be limited by facility infrastructure or natural barriers
Well development/ Packer test assumes up to 2 hours per packer interval.
Quote is good for 90 days
PWP NTE 45 days is requested for this project. EWI is open to alternative payment terms
EWI will work down to .010 gpm up to 20 gpm. 35-40 psi will be allowed to be against pump while packer can be inflated up to 200 psi.
Weaver will provide calculations and complete and EWI will provide data from packer & flow testing to Weaver.

**AMENDMENT NO. 2
TO
AGREEMENT BETWEEN THE CITY OF COLUMBIA, MISSOURI
AND WEAVER CONSULTANT GROUP.**

**COLUMBIA SANITARY LANDFILL HORIZONTAL EXPANSION
PERMITTING PROJECT – PHASE II**

THIS AMENDMENT (“Amendment”) by and between the City of Columbia, Missouri (“City”) and **Weaver Consultants Group, LLC.**, (“Engineer”) is entered into on the date of the last signatory noted below (the “Effective Date”).

Whereas, The City and Engineer entered an agreement for landfill horizontal expansion permitting on August 7, 2019, and as first amended on February 5, 2020 (“Agreement”);

Whereas, the City and Engineer agree that certain additional services not contemplated at the time the Agreement was entered are necessary for completion of the mapping;

Therefore, the City and Engineer agree to amend the Agreement as indicated herein.

1. Paragraph 2.1.1 of the Agreement is amended to add the following sentence:

In addition, perform professional engineering services set forth in Attachment E – “Supplemental No. 2 Scope of Additional Engineering Service,” attached to Amendment No. 2 to the Agreement.

2. Paragraph 6.1.1.6 of the Agreement is amended to read as follows:

6.1.1.6 Total payment for Scope of Basic Services and all other expenses and costs to CITY under this Agreement and described herein **shall not exceed \$1,711,337.00.**

3. Paragraph 7.16 of the Agreement is amended to read as follows:

7.16 Agreement Documents

This Agreement includes the following exhibits, which are incorporated herein by reference:

Exhibit	Description
A	Scope of Work
B	Hourly Fee Schedule
C	Work Authorization Affidavit

- D Supplemental No. 1 Scope of Additional Engineering Service
- E Supplemental No. 2 Scope of Additional Engineering Service

In the event of a conflict between the terms and conditions of this Agreement and any attachment hereto, the terms contained in this Agreement shall prevail and the terms contained in any attachment shall subsequently prevail in the following order: A, E, D, B, C.

4. The terms and conditions of the Agreement are modified as specifically set forth above. All other provisions of the Agreement, to the extent not inconsistent with this Amendment, remain in full force and effect.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, City and Engineer have executed this Amendment No. 1 on the day and year first above written.

City OF COLUMBIA, MISSOURI

By: John Glascock
John Glascock, City Manager

Date: October 21, 2020

ATTESTED BY:

Sheela Amin
Sheela Amin, City Clerk

APPROVED AS TO FORM:

Nancy Thompson AR
Nancy Thompson, City Counselor

CERTIFICATION:

I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. **55716588-604990 RF061**, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

By: [Signature]
Director of Finance NM

WEAVER CONSULTANTS GROUP, LLC

By: [Signature]

Date: 9/10/20

ATTEST:

By: _____

Name: _____



September 16, 2020

Mr. Adam White
Landfill Superintendent – Acting Solid Waste Manager
City of Columbia Landfill
5700 Peabody Road
Columbia, Missouri 65202

Re: Change Order Estimate
Columbia Sanitary Landfill Horizontal Expansion Permitting Project – Phase II (Agreement dated
February 6, 2020)

Dear Mr. White:

Weaver Consultants Group (WCG) has prepared this estimate of cost to cover additional drilling costs for the Detailed Site Investigation (DSI) occurring at the Columbia Landfill. The initial DSI Work Plan was approved by the MDNR-GSP on May 24, 2019. After the initial phase of drilling the MDNR-GSP required that borings be extended to the base of the bedrock containing the uppermost aquifer and deepening the planned bedrock borings based on a meeting in October 2019.

Since the request for the additional budget was submitted, the expansion site experienced a significant number of weather related lost or reduced drilling days and several test pits that were anticipated to be excavated were drilled and completed as piezometers. Approximately 51% of the planned work days were lost or shortened due to weather and site access conditions; however, equipment rental costs and crew travel expenses accrued. To reduce the budget loss, WCG and the drilling crew suspended drilling during March and April to allow for better weather and site drying conditions.

In addition to the lost drilling days, WCG had the drilling company drill 8 locations that were initially planned to be completed as test pits using the landfill excavator. The depth to bedrock at these locations (15 to 20 feet deep) made drilling the preferred method to investigate the unconsolidated deposits and groundwater at these locations. Test pits with 15 or more feet of overburden also required installation of a piezometer. Proper piezometer construction is impracticable in an excavated test pit. Additionally, after an on site meeting with the MDNR's Geological Support Program geologist in July 2020 where the geologic buffer layer was discussed, WCG noted a data gap in the testing of the upper confining layer that requires an additional 2 borings to complete the investigation of the geologic buffer layer. Initially, the overburden was anticipated to form the geologic buffer layer in that area, but the MDNR-GSP considers the shale above the limestone aquifer to be the continuous geologic buffer. Rock borings, piezometers, and packer testing range between \$10,000 to \$15,000 per additional boring depending on the depth and amount of rock to be drilled.

Exhibit E: Supplemental No. 2 Scope of Additional
Engineering Service

Mr. Adam White
September 16, 2020
Page 2

Although WCG attempted to alleviate budget impacts caused by weather delays by suspending drilling operations during the anticipated wetter part of the spring, we will deplete the budget for the field investigation prior to completing the investigation. WCG requested an estimate of costs from our drilling contractor to complete the remaining drilling. The estimated additional cost to complete the drilling phase is \$245,658.

Currently, there are several site investigation scope tasks budgeted under this engineering agreement that were fully funded based on anticipated detailed field investigations or mitigation plans. Based on completion of the archaeological survey, the determination from the Army Corps of Engineers of no jurisdictional wetlands, and an in-depth bat habitat study that is not required at this time, approximately \$100,000 can be reallocated from those scope tasks to offset the requested additional drilling funds. If the funds can be reallocated, then the budget increase to cover the drilling and investigation work needed for the DSI is **\$145,658**.

WCG appreciates the opportunity to work with the City of Columbia on this important project. Please contact us if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC



Andrew Limmer, P.G.
Senior Project Manager



Dustin Thoenen, P.E.
Project Manager

**AMENDMENT NO. 1
TO
AGREEMENT BETWEEN THE CITY OF COLUMBIA, MISSOURI
AND WEAVER CONSULTANT GROUP.**

**COLUMBIA SANITARY LANDFILL HORIZONTAL EXPANSION
PERMITTING PROJECT – PHASE II**

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Whereas, The City and Engineer entered an agreement for landfill horizontal expansion permitting on August 7, 2019 (“Agreement”);

Whereas, the City and Engineer agree that certain additional services not contemplated at the time the Agreement was entered are necessary for completion of the mapping;

Therefore, the City and Engineer agree to amend the Agreement as indicated herein.

1. Paragraph 2.1.1 of the Agreement is amended to add the following sentence:

In addition, perform professional engineering services set forth in Attachment D – “Supplemental No. 1 Scope of Additional Engineering Service,” attached to Amendment No. 1 to the Agreement.

2. Paragraph 6.1.1.6 of the Agreement is amended to read as follows:

6.1.1.6 Total payment for Scope of Basic Services and all other expenses and costs to CITY under this Agreement and described herein **shall not exceed \$1,565,679.00.**

3. Paragraph 7.16 of the Agreement is amended to read as follows:

7.16 Agreement Documents
 This Agreement includes the following exhibits, which are incorporated herein by reference:

Exhibit	Description
A	Scope of Work
B	Hourly Fee Schedule
C	Work Authorization Affidavit
D	Supplemental No. 1 Scope of Additional Engineering Service

In the event of a conflict between the terms and conditions of this Agreement and any attachment hereto, the terms contained in this Agreement shall prevail and the terms contained in any attachment shall subsequently prevail in the following order: A, D B, C.

4. The terms and conditions of the Agreement are modified as specifically set forth above. All other provisions of the Agreement, to the extent not inconsistent with this Amendment, remain in full force and effect.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, City and Engineer have executed this Amendment No. 1 on the day and year first above written.

City OF COLUMBIA, MISSOURI

By: John Glascock
John Glascock, City Manager

Date: February 5, 2020

ATTESTED BY:

Sheela Amin
Sheela Amin, City Clerk

APPROVED AS TO FORM:

Nancy Thompson
Nancy Thompson, City Counselor *J.M.*

CERTIFICATION:

I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. **55716588-604990 RF061**, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

By: Mark R. ...
Director of Finance *MM*

WEAVER CONSULTANTS GROUP, LLC

By: Michelle ...

Date: 2/10/20

ATTEST:

By: Dustin McQueen

Name: Dustin McQueen



EXHIBIT D

December 24, 2019

Mr. Adam White
Landfill Superintendent – Acting Solid Waste Manager
City of Columbia Landfill
5700 Peabody Road
Columbia, Missouri 65202

Re: Change Order Estimate
Columbia Sanitary Landfill Horizontal Expansion Permitting Project – Phase II (Agreement dated August 5, 2019)

Dear Mr. White:

Weaver Consultants Group (WCG) has prepared this estimate of cost to cover additional drilling required by the Missouri Department of Natural Resources (MDNR) Geologic Support Program (GSP) for the Detailed Site Investigation (DSI) occurring at the Columbia Landfill. The initial DSI Work Plan was approved by the MDNR-GSP on May 24, 2019. The work plan required the completion of approximately 5,085 feet total of drilling activities, or to a maximum estimated depth of approximately 155 feet for a given location. During the initial drilling, the MDNR-GSP required borings to be drilled approximately 50 feet below a marker bed that the MDNR-GSP determined was not part of the bedrock monitoring zone, which differs from the rock monitoring wells in the northern portion of the facility.

After the initial drilling phase, the findings were presented to the MDNR-GSP and a progress meeting was held on October 1, 2019. The MDNR-GSP required that the saturated portion of the bedrock monitoring zone be characterized as the uppermost aquifer. As a result, the MDNR-GSP required drilling to the base of the formation that is the bedrock monitoring zone and extend piezometers approximately 20 feet into the saturated zone of this monitoring zone based on the results of the deep borings extended to the lower confining layer of the bedrock monitoring zone. As a result, the revised estimated total drilling footage is approximately 7,755 feet with a maximum depth of approximately 385 feet for a given location. The increase in total footage (2,670 feet) is approximately a 53% increase over the approved work plan footage. Since the additional drilling requirements were communicated by MDNR-GSP, drilling crews have been performing the borings at the deeper, required depths since the meeting.

WCG requested an estimate of costs from our drilling contractor to complete the additional drilling. The original cost estimate for the DSI portion of the expansion project approved on August 15, 2019 was \$916,953. The estimated cost to complete the additional piezometer installations in the bedrock is \$493,667, an approximate 54% budget increase.

Mr. Adam White
December 24, 2019
Page 2

WCG proposes to complete the additional drilling and investigation needed for the DSI at an additional cost of **\$493,667** on a Time and Materials basis.

WCG appreciates the opportunity to work with the City of Columbia on this important project. Please contact Dustin Thoenen or myself if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC



Andrew Limmer, P.G.
Senior Project Manager



Dustin Thoenen, P.E.
Project Manager

AGREEMENT
For
PROFESSIONAL ENGINEERING SERVICES
Between
THE CITY OF COLUMBIA, MISSOURI
And
WEAVER CONSULTANTS GROUP, LLC

THIS AGREEMENT by and between the City of Columbia, Missouri (hereinafter called "CITY"), and **Weaver Consultants Group, LLC** (hereinafter called "ENGINEER"), is entered into on the date of the last signatory noted below (the "Effective Date").

WITNESSETH, that whereas CITY intends to make improvements as described below, hereinafter called the PROJECT, consisting of the following:

**Columbia Sanitary Landfill Horizontal Expansion
Permitting Project – Phase II**
(Description of Project)

NOW, THEREFORE, in consideration of the mutual covenants set out herein the parties agree as follows:

ENGINEER shall serve as CITY's professional engineering contractor in those assignments to which this Agreement applies, and shall give consultation and advice to CITY during the performance of the services. All services shall be performed under the direction of a professional engineer registered in the State of Missouri and qualified in the particular field.

SECTION 1 - AUTHORIZATION OF SERVICES

1.1 ENGINEER shall not undertake to begin any of the services contemplated by this agreement until directed in writing to do so by CITY. CITY may elect to authorize the PROJECT as a whole or in parts.

1.2 Authorized work may include services described hereafter as Basic Services or as Additional Services of ENGINEER.

SECTION 2 - BASIC SERVICES OF ENGINEER

2.1 General

2.1.1 Perform professional engineering services as set forth in Attachment A - "Scope of Basic Services," dated **May 15, 2019** (hereinafter referred to as "Scope of Basic Services").

2.1.2 ENGINEER will designate the following listed individuals as its project team with responsibilities as assigned. ENGINEER shall dedicate whatever additional resources are necessary to accomplish the PROJECT within the specified time frame but will not remove these individuals from the assigned tasks for any reason within the control of ENGINEER without the written approval of CITY.

<u>Name and Title</u>	<u>Assignment</u>
Dustin Thoenen, P.E., Project Manager	Project Manager, Certifying Engineer
Andy Limmer, P.G., Senior Project Manager	Certifying Geologist
Michele Clark, Senior Project Director	Project Director

All of the services required hereunder will be performed by ENGINEER or under its supervision and all personnel engaged in the work shall be fully qualified and authorized or permitted under state and local law to perform such services.

None of the work or services covered by this Agreement shall be subcontracted without the prior written approval of CITY and any work or services so subcontracted shall be subject to the provisions of this Agreement.

2.2 ENGINEER shall furnish such periodic reports as CITY may request pertaining to the work or services undertaken pursuant to this Agreement, the costs and obligations incurred or to be incurred, and any other matters covered by this Agreement.

2.3 ENGINEER shall maintain accounts and records, including personnel, property and financial records, adequate to identify and account for all costs pertaining to the Agreement and any other records as deemed necessary by CITY to assure proper accounting for all project funds. These records must be available to CITY or its authorized representatives, for audit purposes, and must be retained for three (3) years after expiration or completion of this Agreement.

SECTION 3 - ADDITIONAL SERVICES OF ENGINEER

3.1 General

If authorized in writing by CITY, and agreed to in writing by ENGINEER, ENGINEER shall furnish or obtain from others Additional Services of the following types which are not considered normal or customary Basic Services. The scope of Additional Services may include:

3.1.1 Financial Consultation

Consult with CITY's fiscal agents and bond attorneys and provide such engineering data as required for any bond prospectus or other financing requirements.

- 3.1.2 Property Procurement Assistance
Provide consultation and assistance on property procurement as related to professional engineering services being performed.
- 3.1.3 Obtaining Services of Others
Provide through subcontract the services or data set forth in Scope of Basic Services. ENGINEER is prohibited from holding a retainage on any payment to a subcontractor that provides any services or work on this Project.
- 3.1.4 Preliminary or final engineering design of capital facilities except as specifically identified herein.
- 3.1.5 Preparation of reports, data, application, etc., in connection with modifications to FEMA floodplain definition and/or mapping.
- 3.1.6 Extra Services
Services not specifically defined heretofore that may be authorized in writing by CITY.

SECTION 4 - RESPONSIBILITIES OF CITY

- 4.1 Provide full information as to CITY's requirements for the PROJECT.
- 4.2 Assist ENGINEER by placing at ENGINEER's disposal available information pertinent to the assignment including previous reports and other data relative thereto, including the items outlined in Scope of Basic Services.
- 4.3 Guarantee access to and make all provisions for ENGINEER to enter upon public and private property as required for ENGINEER to perform ENGINEER's services under this Agreement.
- 4.4 Examine all studies, reports, sketches, estimates, Bid Documents, Drawings, proposals and other documents presented by ENGINEER and render in writing decisions pertaining thereto.
- 4.5 Provide such professional legal, accounting, financial and insurance counseling services as may be required for the PROJECT.
- 4.6 Designate **David Sorrell, Assistant Director City Utilities**, as CITY's representative with respect to the services to be performed under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define CITY's policies and decisions with respect to materials, equipment, elements and systems to be used in the PROJECT, and other matters pertinent to the services covered by this Agreement. The CITY's designated representative may be changed during the duration of this Agreement by written notice from the City Manager, or City Manager's designee, to ENGINEER.

4.7 Give prompt written notice to ENGINEER whenever CITY observes or otherwise becomes aware of any defect in the PROJECT.

4.8 Furnish approvals and permits from all governmental authorities having jurisdiction over the PROJECT and such approvals and consents from others as may be necessary for completion of the PROJECT.

4.9 Furnish ENGINEER data such as probings and subsurface explorations, with appropriate professional interpretations; property, boundary, easement, right-of-way, topographic and utility surveys; zoning and deed restriction; and other special data or consultations, all of which ENGINEER may rely upon in performing his services under this Agreement.

SECTION 5 - PERIOD OF SERVICE

5.1 This Agreement will become effective upon the first written notice by CITY authorizing services hereunder.

5.2 This Agreement shall be applicable to all work assignments authorized by CITY subsequent to the date of its execution and shall be effective as to all assignments authorized.

5.3 Services shall be started within 10 calendar days of Notice to Proceed and completed within **640** calendar days from the issuance of the Notice to Proceed. CITY shall have the right to establish performance times for individual phases or elements of the PROJECT by delivering a written schedule setting out the performance times to the ENGINEER.

SECTION 6 - PAYMENTS TO ENGINEER

6.1 Amount of Payment

6.1.1 For services performed, CITY shall pay ENGINEER the sum of amounts determined as follows:

6.1.1.1 For time spent by personnel, payment at the hourly rates indicated in the "Schedule of Hourly Labor Billing Rates" (attached). Such rates include overhead and profit. The schedule may be revised annually if the term of this Agreement exceeds one (1) year. To be effective, any revision in the Schedule of Hourly Labor Billing Rates shall be provided by ENGINEER to CITY as least thirty (30) days prior to work performed under this Agreement to which such rates apply.

6.1.1.2 For outside expenses incurred by ENGINEER, such as authorized travel and subsistence, commercial services, and incidental expenses, the cost to ENGINEER.

6.1.1.3 For reproduction, printing, long-distance telephone calls, company vehicle usage, testing apparatus, computer services and computer-assisted drafting (CAD), amounts will be charged according to the ENGINEER's standard rates in effect at the time service is provided.

6.1.1.4 For professional services rendered by others as subcontractor(s) to ENGINEER such as surveying, real property descriptions, soil borings, subsurface investigations, laboratory testing, field quality control tests, progress photos, or other activities required or requested by CITY, will be billed at the cost to ENGINEER.

6.1.1.5 For time spent by outside individual professional consultants employed by ENGINEER in providing services to CITY, the cost to ENGINEER. Expenses incurred by such outside consultants in service to CITY shall be reimbursable in accordance with 6.1.1.2 above.

6.1.1.6 Total payment for Scope of Basic Services and all other expenses and costs to CITY under this Agreement and described herein **shall not exceed \$1,072,012.**

6.2 Payments

6.2.1 ENGINEER shall submit an invoice for services rendered to CITY not more than once every month. Upon receipt of the invoice and progress report, CITY will, as soon as practical, pay ENGINEER for the services rendered, provided CITY does not contest the invoice.

SECTION 7 - GENERAL CONSIDERATIONS

7.1 Insurance

7.1.1 ENGINEER'S INSURANCE: ENGINEER agrees to maintain, on a primary basis and at its sole expense, at all times during the life of this contract the following insurance coverages, limits, including endorsements described herein. The requirements contained herein, as well as CITY's review or acceptance of insurance maintained by ENGINEER is not intended to and shall not in any manner limit or qualify the liabilities or obligations assumed by ENGINEER under this contract.

Commercial General Liability ENGINEER agrees to maintain Commercial General Liability at a limit of liability not less than **\$2,000,000** combined single limit for any one occurrence covering both bodily injury and property damage, including accidental death. Coverage shall not contain any endorsement(s) excluding nor limiting Contractual Liability or Cross Liability. If the contract involves any underground/digging operations, the general liability certificate shall include X, C and U (Explosion, Collapse and Underground) coverage.

Professional Liability ENGINEER agrees to maintain Professional (Errors & Omissions) Liability at a limit of liability not less than **\$2,000,000** per claim and **\$2,000,000** aggregate. For policies written on a "Claims-Made" basis, ENGINEER agrees to maintain a Retroactive Date prior to or equal to the Effective Date of this contract. In the event the policy is canceled, non-renewed, switched to an Occurrence Form, retroactive date advanced; or any other event triggering the right to purchase a Supplemental Extended Reporting Period (SERP) during the life of this contract, ENGINEER agrees to purchase a SERP with a minimum reporting period not less than two (2) years. The requirement to purchase a SERP shall not relieve ENGINEER of the obligation to provide replacement coverage.

Business Automobile Liability ENGINEER agrees to maintain Business Automobile Liability at a limit of liability not less than **\$2,000,000** combined single limit for any one occurrence and not less than \$150,000 per individual, covering both bodily injury, including accidental death, and property damage, to protect themselves from any and all claims arising from the use of the ENGINEER's own automobiles, and trucks; hired automobiles, and trucks; and automobiles both on and off the site of work. Coverage shall include liability for Owned, Non-Owned & Hired automobiles. In the event ENGINEER does not own automobiles, ENGINEER agrees to maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Workers' Compensation Insurance & Employers' Liability ENGINEER agrees to take out and maintain during the life of this contract, Employers' Liability and Workers' Compensation Insurance for all of their employees employed at the site of the work, and in case any work is sublet, the ENGINEER shall require the subcontractor similarly to provide Workers' Compensation Insurance for all the latter's employees unless such employees are covered by the protection afforded by the ENGINEER. Workers' Compensation coverages shall meet Missouri statutory limits. Employers' Liability minimum limits shall be \$500,000 each employee, \$500,000 each accident and \$500,000 policy limit. In case any class of employees engaged in hazardous work under this contract is not protected under the Workers' Compensation Statute, the ENGINEER shall provide and shall cause each subcontractor to provide Employers' Liability Insurance for the protection of their employees not otherwise protected.

Excess/Umbrella Liability The above liability limits may be satisfied by any combination of primary and excess/umbrella liability policies.

Additional Insured ENGINEER agrees to endorse CITY as an Additional Insured with a CG 2026 Additional Insured – Designated Person or Organization endorsement, or similar endorsement, to the Commercial General Liability. The Additional Insured shall read "City of Columbia."

Waiver of Subrogation ENGINEER agrees by entering into this contract to a Waiver of Subrogation for each required policy herein except professional liability. When required by the insurer, or should a policy condition not permit ENGINEER to enter into an pre-loss agreement to waive subrogation without an endorsement, then ENGINEER agrees to notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or its equivalent. This Waiver of

Subrogation requirement shall not apply to any policy, which includes a condition specifically prohibiting such an endorsement, or voids coverage should ENGINEER enter into such an agreement on a pre-loss basis.

Certificate(s) of Insurance ENGINEER agrees to provide CITY with Certificate(s) of Insurance evidencing that all coverages, limits and endorsements required herein are maintained and in full force and effect. Said Certificate(s) of Insurance shall include a minimum thirty (30) day endeavor to notify due to cancellation or non-renewal of coverage. The Certificate(s) of Insurance shall name the City as additional insured in an amount as required in this contract and contain a description of the project or work to be performed.

Right to Revise or Reject CITY reserves the right, but not the obligation, to review and revise any insurance requirement, not limited to limits, coverages and endorsements based on insurance market conditions affecting the availability or affordability of coverage; or changes in the scope of work / specifications affecting the applicability of coverage. Additionally, CITY reserves the right, but not the obligation, to review and reject any insurance policies failing to meet the criteria stated herein or any insurer providing coverage due of its poor financial condition or failure to operating legally.

7.1.2 **HOLD HARMLESS AGREEMENT:** To the fullest extent not prohibited by law, ENGINEER shall indemnify and hold harmless the City of Columbia, its directors, officers, agents and employees from and against all claims, damages, losses and expenses (including but not limited to attorney's fees) arising by reason of any negligent act or failure to act, or willful misconduct, of ENGINEER, of any subcontractor (meaning anyone, including but not limited to consultants having a contract with ENGINEER or a subcontractor for part of the services), of anyone directly or indirectly employed by ENGINEER or by any subcontractor, or of anyone for whose acts ENGINEER or its subcontractor may be liable, in connection with providing these services except as provided in this Agreement. This provision does not, however, require ENGINEER to indemnify, hold harmless or defend the City of Columbia from its own negligence, except as set out herein.

7.2 Professional Responsibility

7.2.1 Missouri Licensure & Certificate of Authority

ENGINEER certifies that it is currently in compliance, and agrees to maintain compliance for the duration of this Agreement, with all licensure requirements of the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Professional Landscape Architects (hereinafter "APEPLSPLA") to practice in Missouri as a professional engineer as provided under chapter 327 of the Missouri Revised Statutes. To the extent required by Section 327.401 of the Missouri Revised Statutes, ENGINEER understands and agrees that the person personally in charge and supervising the professional engineering services of ENGINEER under this Agreement shall be licensed and authorized to practice engineering in Missouri, and that ENGINEER will keep and maintain a valid certificate of authority from APEPLSPLA.

7.2.2 ENGINEER will exercise reasonable skill, care, and diligence in the performance of its services and will carry out its responsibilities in accordance with customarily accepted good professional engineering practices. If ENGINEER fails to meet the foregoing standard, ENGINEER will perform at its own cost, and without reimbursement from CITY, the professional engineering services necessary to correct errors and omissions which are caused by ENGINEER's failure to comply with above standard, and which are reported to ENGINEER within one year from the completion of ENGINEER's services for the PROJECT.

7.2.3 In addition, ENGINEER will be responsible to CITY for damages caused by its negligent conduct during its activities at the PROJECT site or in the field.

7.2.4 Professional Oversight Indemnification

ENGINEER understands and agrees that CITY has contracted with ENGINEER based upon ENGINEER's representations that ENGINEER is a skilled professional and fully able to provide the services set out in this Agreement. In addition to any other indemnification set out in this Agreement, ENGINEER agrees to defend, indemnify and hold and save harmless CITY from any and all claims, settlements and judgments whatsoever arising out of CITY's alleged negligence in hiring or failing to properly supervise ENGINEER. ENGINEER agrees to provide CITY with Certificate(s) of Insurance evidencing that all coverages, limits and endorsements are maintained and in full force and effect.

7.3 Estimates and Projections

Estimates and projections prepared by ENGINEER relating to construction costs and schedules, operation and maintenance costs, equipment characteristics and performance, and operating results are based on ENGINEER's experience, qualifications and judgment as a design professional. Since ENGINEER has no control over weather, cost and availability of labor, material and equipment, labor productivity, construction contractor's procedures and methods, unavoidable delays, construction contractor's methods of determining prices, economic conditions, competitive bidding or market conditions and other factors affecting such estimates or projections, ENGINEER does not guarantee that actual rates, costs, performance, schedules, etc., will not vary from estimates and projections prepared by ENGINEER.

7.4 On-Site Services

PROJECT site visits by ENGINEER during construction shall not make ENGINEER responsible for construction means, methods, techniques, sequences or procedures; for construction safety precautions or programs; or for any construction contractor(s') failure to perform its work in accordance with the plans and specifications.

7.5 Changes

CITY shall have the right to make changes within the general scope of ENGINEER's services, with an appropriate change in compensation and/or schedule, upon execution of a mutually acceptable amendment or change order signed by an

authorized representative of CITY and the President or any Vice President of ENGINEER.

7.6 Suspension of Services

Should CITY fail to fulfill its responsibilities as provided under Section 4 to the extent that ENGINEER is unduly hindered in ENGINEER's services or if CITY fails to make any payment to ENGINEER on account of its services and expenses within ninety (90) days after receipt of ENGINEER's bill therefor, ENGINEER may, after giving seven (7) days' written notice to CITY, suspend services under this Agreement until CITY has satisfied his obligations under this Agreement.

7.7 Termination

Services may be terminated by the CITY at any time and for any reason, and by ENGINEER in the event of substantial failure to perform in accordance with the terms hereof by CITY through no fault of ENGINEER, by ten (10) days' notice. If so terminated, CITY shall pay ENGINEER all uncontested amounts due ENGINEER for all services properly rendered and expenses incurred to the date of receipt of notice of termination.

7.7.1 In the event of CITY's termination of this Agreement pursuant to the above section, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs and reports prepared under this Agreement, shall at the option of CITY become its property.

Further, ENGINEER shall not be relieved of any liability to CITY for any damages sustained by CITY by virtue of any breach of this Agreement by ENGINEER and CITY may withhold any payments due ENGINEER for the purpose of set-off until such time as the exact amount of damages to CITY, if any, is determined.

7.8 Publications

Recognizing the importance of professional development on the part of ENGINEER's employees and the importance of ENGINEER's public relations, ENGINEER may prepare publications, such as technical papers, articles for periodicals, and press releases, pertaining to ENGINEER's services for the PROJECT. Such publications will be provided to CITY in draft form for CITY's advance review. CITY will review such drafts promptly and will provide comments to ENGINEER. CITY may require deletion of proprietary data or confidential information from such publications but otherwise will not unreasonably withhold its approval. The cost of ENGINEER's activities pertaining to any such publication shall be paid entirely by ENGINEER.

7.9 Nondiscrimination

During the performance of this Agreement, ENGINEER agrees to the following:

7.9.1 ENGINEER shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, national origin, ancestry, marital status, disability, sexual orientation, or gender identity. ENGINEER shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, age, national origin, ancestry, marital status, disability, sexual orientation, gender identity or expression, or any other protected category designated by local, state, or federal law. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training including apprenticeship. ENGINEER agrees to post notices in conspicuous places, available to employees and applicants for employment.

7.9.2 ENGINEER shall, in all solicitation or advertisements for employees placed by or on behalf of ENGINEER, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, national origin, ancestry, marital status, disability, sexual orientation, gender identity or expression, or any other protected category designated by local, state, or federal law.

7.9.3 ENGINEER shall comply with all provisions of local, state and federal laws governing the regulation of equal employment opportunity including Title VI of the Civil Rights Act of 1964.

7.10 Successor and Assigns

CITY and ENGINEER each binds themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement; except as above, neither CITY nor ENGINEER shall assign, sublet or transfer his interest in the Agreement without the written consent of the other.

7.11 Rights and Benefits

ENGINEER's services will be performed solely for the benefit of the CITY and not for the benefit of any other persons or entities.

7.12 Compliance with Local Laws

ENGINEER shall comply with all applicable laws, ordinances and codes of the state and city.

7.13 Law; Submission to Jurisdiction Governing

This Agreement shall be governed by, interpreted and enforced in accordance with the laws of the State of Missouri and/or the laws of the United States, as applicable. The venue for all litigation arising out of, or relating to this Agreement, shall be Boone County, Missouri or the United States Western District of Missouri. The parties hereto irrevocably agree to submit to the exclusive jurisdiction of such courts in the State of Missouri and waive any defense of forum non conveniens.

7.14 Employment of Unauthorized Aliens Prohibited

7.14.1 ENGINEER agrees to comply with Missouri State Statute section 285.530 in that they shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri.

7.14.2 As a condition for the award of this Agreement, ENGINEER shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. ENGINEER shall also sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

7.14.3 ENGINEER shall require each subcontractor to affirmatively state in its contract with ENGINEER that the subcontractor shall not knowingly employ, hire for employment or continue to employ an unauthorized alien to perform work within the state of Missouri. ENGINEER shall also require each subcontractor to provide ENGINEER with a sworn affidavit under the penalty of perjury attesting to the fact that the subcontractor's employees are lawfully present in the United States.

7.15 No Waiver of Immunities

In no event shall the language of this Agreement constitute or be construed as a waiver or limitation for either party's rights or defenses with regard to each party's applicable sovereign, governmental, or official immunities and protections as provided by federal and state constitutions or laws.

7.16 Agreement Documents

This Agreement includes the following exhibits, which are incorporated herein by reference:

<u>Exhibit</u>	<u>Description</u>
A	Scope of Work
B	Hourly Fee Schedule
C	Work Authorization Affidavit

In the event of a conflict between the terms and conditions of this Agreement and any attachment hereto, the terms contained in this Agreement shall prevail and the terms contained in any attachment shall subsequently prevail in the order attached hereto.

7.17 Entire Agreement

This Agreement represents the entire and integrated Agreement between ENGINEER and CITY relative to the Scope of Basic Services herein. All previous or contemporaneous agreements, representations, promises and conditions relating to ENGINEER's services described herein are superseded.

[SIGNATURES ON FOLLOWING PAGE]

CITY OF COLUMBIA, MISSOURI

By: John Glascock
John Glascock, Interim City Manager

Date: August 7, 2019

ATTESTED BY:

Sheela Amin
Sheela Amin, City Clerk

APPROVED AS TO FORM:

Nancy Thompson
Nancy Thompson, City Counselor

CERTIFICATION:

I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. **55716588-604990 RF061**, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

By: Janet Frazier
Director of Finance

WEAVER CONSULTANTS GROUP, LLC

By: Art Hall
Date: 6/5/19

ATTEST:

By: Sarah Calhoun
Name: Sarah Calhoun

EXHIBIT A

SCOPE OF SERVICES

SOLID WASTE UTILITY
CITY OF COLUMBIA LANDFILL
HORIZONTAL EXPANSION PERMITTING PROJECT
COLUMBIA, MISSOURI

General

Engineer shall not begin work outlined in this section without written authorization from the City.

The City of Columbia, Missouri (City) currently owns and operates a sanitary landfill in Boone County, Missouri. The existing landfill is divided into two sections: a 51-acre pre-Subtitle D section in the north, and a 56-acre Subtitle D section to the south. The 56-acre Subtitle D disposal area is divided into six cells. Cells 1-5 are constructed, with current disposal operations occurring in Cell 5. Cell 6 (final cell) has been constructed and has begun receiving waste in Spring 2019. Filling will progress to Cell 6 and then into areas with remaining airspace within the permitted boundary to bring the Landfill to the permitted final grades.

The remaining life of the existing Landfill was estimated by Burns & McDonnell as part of the 2016 Vertical Permit Modification. The Remaining Life was derived by calculating the remaining disposal volume and then applying an assumed waste generation rate and an airspace utilization factor (AUF) to calculate the approximate amount of airspace consumed at the Landfill each year, until no volume remains. From these calculations, the existing Landfill is estimated to reach capacity between 2026 and 2031.

As a part of the City of Columbia Landfill Site Master Plan, dated August 2017 (Master Plan), expansion alternatives were analyzed and identified. Findings from the Master Plan identified an expansion area south of the landfill as the best option to serve the City for future waste disposal and renewable energy source. The Scope of Services defined below identifies the specific tasks, deliverables and approvals needed to complete the Detailed Site Investigation (DSI) to prepare a design and permit a new landfill on the City property.

1. **Project Management, Administration and Controls.** The Engineer will provide ongoing direction and management of the project as a whole. Coordinate drilling and geotechnical laboratory contractors, coordinate other subcontractors, review budgets, review geologic information with respect to the Missouri solid waste requirements, and quality of work throughout the course of the Project. Provide project status reports to the City with each

phase of project completion and at the end of the project. Generate invoices and ensure timely payments are made. Perform site visits/meetings to discuss progress and potential issues.

2. **DSI Project Meetings.** The Engineer anticipates that at least two meetings with the Missouri Geology Survey's Geologic Support Program (MGS-GSP) will be required as subsurface information is collected. The Community Involvement Session with the MGS-GSP required by Missouri State Statutes is also included below as a project meeting.
 - 2.1. Project Meeting after Phase I investigation. The Engineer will meet with the MGS to provide an update on findings of the Phase I investigation. The Engineer will provide any revisions to the site investigation work plan after the initial phase of the subsurface investigation is completed under the direction of the MGS. The meeting is anticipated to be held at the MGS office in Rolla, MO.
 - 2.2. Project Meeting at or near completion of the DSI. The Engineer will meet with the MGS during the site investigation or at the completion of the investigation to review the boring locations and the rock core samples collected from the borings.
 - 2.3. Community Involvement Session. The Community Involvement Session is required per 260.205.3(3) RSMo. to occur at least 60 days before MGS-GSP receives a report on the results of the DSI. The Engineer will assist the City in setting up and conducting the Community Involvement Session. A public comment period will also begin the day of the Community Involvement Session and continue for at least 30 days after the session. The applicant must respond to all persons submitting comments during the public comment period no more than 30 days after they are received. The Engineer will assist the City in responding to comments made on the DSI Report and at the Community Involvement Session.
3. **Detailed Site Investigation.** Engineer will complete the Detailed Site Investigation (DSI) following approval of the DSI Work Plan by the MDNR's Geological Survey Program (GSP). If geologic features are present that may be prohibitive to landfill expansion are identified during the DSI, the area of the adverse geologic features will be discussed with the City and the DSI Work Plan will be modified as needed.
 - 3.1. DSI Field Work. The DSI field work includes advancing 73 borings and test pits, collecting subsurface samples of the water bearing units and confining units, performing in situ aquifer testing, and completing the borings as piezometers. The piezometers will be measured monthly for up to one year following installation per Missouri state regulations. The geologic and hydrogeologic information obtained during the DSI will be used to design a landfill that complies with the Missouri solid waste regulations. Samples taken during the field work will be analyzed by a local laboratory according to the approved DSI work plan. Samples will also be labeled and stored at the site.

3.2. **DSI Report.** Findings from the DSI field work will be incorporated into the DSI Report for submission to the MGS-GSP. A Missouri registered professional geologist will supervise and seal the DSI Report.

4. **Landfill Design Development.** The Engineer will develop preliminary design options for the bottom elevation of the landfill as data becomes available from the DSI fieldwork. The current conceptual design developed by Burns and MacDonnell is subject to design changes as hydrogeologic data becomes available through the DSI. Design limitations with respect to Missouri State Regulations will be the guiding factors for the bottom elevation of the landfill. The Engineer shall provide design options to the City and incorporate into the Community Involvement Session.
5. **Phase 2/4 Endangered Species Study.** Findings from the Phase 1 Endangered Species Study in the Site Location Restriction Demonstration from Phase 1 of the project will dictate the extent of a Phase 2 – Summer Presence/Absence Survey and Phase 4 – Radio Tracking/Emergence Studies for endangered species of bats. At the time of this scope of work, the habitat assessment from Phase 1 has yet to be completed. However, given previous investigations in the project area, and some initial discussions with the US Fish and Wildlife Service (USFWS), it is assumed that the Phase 2 and 4 of the Endangered Species Study will be needed for an area of approximately 105 acres of potential habitat.

The Engineer shall complete Phase 2 - Summer Presence/Absence Surveys using Mist Netting techniques according to the USFWS Range-Wide Indiana Bat Survey Guidelines (Guideline) dated April 2019. For an area of 105 acres on a non-linear project, the Guideline requires a minimum of 9 net nights. In the event of an endangered bat capture, the project will require a Phase 4 project completion of radio-tracking and emergence surveys. It is anticipated that up to 5 bats of each endangered species (Northern Long-Eared Bat and Indiana Bat) could be captured during the study. Each capture requires the bat to be equipped with a radio transmitter according to the Guideline. Each bat would then be tracked using the transmitter for a minimum of 7 days. The Engineer shall then prepare a report of the Phase 2 and Phase 4 results and submit to the local USFWS field office with information provided in the Guideline. The cost estimate provided in Attachment B2 assumes a maximum of 9 net nights and the capture and tracking of a maximum of 10 bats.

OWNER RESPONSIBILITIES

Owner shall be responsible for the following items:

1. Owner shall provide heavy equipment and an operator needed to conduct the Phase I test pits.
2. Owner shall provide a location to store samples of soil and rock collected during the DSI.
3. Owner shall allow access to the site for the Endangered Species Study.

SUPPLEMENTAL SERVICES

Any Work requested by the City that is not included in one of the items listed in Work described will be considered a supplemental service.

COST OF SERVICES

**SOLID WASTE UTILITY
CITY OF COLUMBIA LANDFILL LATERAL EXPANSION
DESIGN AND PERMITTING SERVICES
COLUMBIA, MISSOURI**

Phase/Task	Man-Hours	Labor Cost	Expenses	Sub-Contractor Cost	Total Cost
1 - Project Administration and Controls	325	\$ 40,130	\$ -	\$ -	\$ 40,130
2 - Project Meetings					
2.1 - DSI MGS Meeting 1	26	\$ 3,692	\$ 680	\$ -	\$ 4,372
2.2 - DSI MGS Meeting 2	26	\$ 3,692	\$ 680	\$ -	\$ 4,372
2.3 - Community Involvement Session	36	\$ 5,092	\$ 225	\$ -	\$ 5,317
3 - Detailed Site Investigation					
3.1 - Field Work	1764	\$ 161,860	\$ 35,820	\$ 719,273	\$ 916,953
3.2 - DSI Report	176	\$ 18,496	\$ 890	\$ -	\$ 19,386
4 - Landfill Design Development	174	\$ 23,332	\$ -	\$ -	\$ 23,332
5 - Phase 2/4 Endangered Species Study	21	\$ 3,150	\$ -	\$ 55,000	\$ 58,150
SUBTOTALS	2548	\$259,444	\$ 38,295	\$ 774,273	
TOTAL					\$ 1,072,012

**WEAVER CONSULTANTS GROUP
FEE SCHEDULE
(Effective January 1, 2018)**

I. PROFESSIONAL STAFF	<u>Unit</u>	<u>U.S. \$</u>
a) Principal/Corporate Consultant	Hr	210.00
b) Senior Project Director	Hr	197.00
c) Project Director	Hr	184.00
d) Senior Project Manager	Hr	164.00
e) Senior Project Engineer/Scientist/Environmental Specialist	Hr	150.00
f) Project Manager	Hr	140.00
g) Senior Industrial Hygienist	Hr	132.00
h) Project Engineer/Scientist/Environmental Specialist	Hr	120.00
i) Staff Engineer/Scientist/Environmental Specialist	Hr	110.00
j) Geotechnical Engineer	Hr	105.00
k) Staff Environmental Geologist	Hr	94.00
l) Engineer/Scientist/Environmental Specialist/Industrial Hygienist	Hr	90.00
 II. TECHNICAL STAFF		
a) Union Engineering Technician-Journeyman	Hr	125.00
b) Union Engineering Technician	Hr	120.00
c) Construction Superintendent	Hr	110.00
d) Construction Manager	Hr	96.00
e) System Specialist III	Hr	138.00
f) System Specialist II	Hr	105.00
g) System Specialist I	Hr	96.00
h) System Technician	Hr	83.00
i) Field Engineer/Scientist/Environmental Specialist	Hr	100.00
j) Certified Technician	Hr	76.00
k) Senior Engineering Technician	Hr	72.00
l) Engineering Technician II	Hr	65.00
m) Engineering Technician I	Hr	55.00
 III. SUPPORT STAFF		
a) Senior CAD Designer	Hr	115.00
b) CAD Designer III	Hr	108.00
c) CAD Designer II	Hr	95.00
d) CAD Designer I	Hr	72.00
e) Technical Assistant	Hr	68.00
f) Clerical/Word Processing	Hr	68.00
 IV. SURVEYING		
a) Senior Professional Land Surveyor	Hr	154.00
b) Professional Land Surveyor	Hr	136.00
c) Survey Project Coordinator	Hr.	116.00
d) Survey Party Chief	Hr	105.00
e) Survey Technician II	Hr	65.00
f) Survey Technician I	Hr	53.00
g) Survey Party - 1 Person/GPS or Robotic	Hr	155.00
h) Survey Party - 2 Person/GPS or Robotic	Hr	200.00
i) Survey Party - 2 Person Unmanned Aircraft	Day	2,100.00
 V. GENERAL EXPENSES		
a) Automobile Transportation	Mi.	0.75
b) Subcontract Service or Rental		Cost+15%
c) Report Preparation (outside services)		Cost+15%
d) Outside Services (e.g., delivery, prints, document scanning, etc.)		Cost+15%
e) Per Diem (food and lodging)	Day	140.00
f) Per Diem (no lodging)	Day	35.00
g) Transportation by Commercial Carrier or Rental Car		Cost+15%
h) Travel Expense		Cost+15%
i) Staking supplies (lath and hub)	Ea	2.00
j) Survey monumentation (iron pipe, rebar, spikes) excludes concrete monuments	Ea	4.00

Any modification to this fee schedule requires the written approval of Weaver Consultants Group

**WEAVER CONSULTANTS GROUP
FEE SCHEDULE
(Effective January 1, 2018)**

VI. TESTING AND EQUIPMENT RENTAL FEES	Unit	U.S. \$
a) pH, Specific Conductance and Temperature Meter	Day	85.00
b) Peristaltic Filter Pump	Day	40.00
c) Electric Purge Pump	Day	45.00
d) Grundfos Pump Control Box	Day	110.00
e) Water Level Indicator	Day	35.00
f) Filter and Hose (for pump)	Ea	22.00
g) Micropurge Flow Cell and Sonde	Day	130.00
h) Modified Level "D" (Tyveks, Boots, Gloves)/per person/per change of clothing	Ea	53.00
i) Photoionization Detector Meter	Day	116.00
j) Nuclear Density Gauge	Day	70.00
Nuclear Density Gauge	Wk	300.00
k) Air Sampling Equipment, per pump	Day	53.00
l) Hand Operated Field Probe Equipment	Day	30.00
m) Explosimeter	Day	35.00
n) Gas Analyzer	Day	190.00
o) Flame Ionization Detector	Day	265.00
p) Interface Probe	Day	55.00
q) ATV	Day	53.00
r) Company Truck	Day	95.00
Company Truck (does not include fuel or mileage)	Wk	450.00
s) Hand-Held Field GPS/G15	Day	158.00
t) Laser Level	Day	79.00
u) Ground Penetrating Radar	Day	250.00
v) Geonics EM-61	Day	525.00
w) Survey Grade GPS Unit	Day	360.00
x) Electric Generator	Day	69.00
y) Slug Test Equipment	Day	210.00
z) All Weather Key Alike Locks	Ea	20.00
aa) Equipment Trailer	Day	79.00
bb) Fluk Meter/Volt Meter/Loop Calibrator	Day	126.00
cc) Four Gas Meter	Day	20.00

UNIT PRICE NOTES:

1. All professional, technical, and support staff time and expenses spent in furtherance of the client's work will be billed. This includes, but is not limited to, proposal, field, travel, research, technical review and reporting, project management, client meeting, and project-specific administrative support.
2. An overtime rate of 1.3 times the regular rate is billed for technical and support staff services for work in excess of 40 hours per week, work between 7:00 p.m. to 5:00 a.m., and work on Saturdays. This overtime rate is increased to 2.0 times the regular rate for work on Sundays and holidays.
3. Unless otherwise agreed to in writing, a monthly interest charge of 18% per annum, will be charged accruing from the date of invoice, on all invoices not paid within 30 days.
4. The unit rates are subject to periodic modification (typically annually). These rate modifications will be incorporated into long-term projects, unless otherwise addressed in the project contract.
5. Litigation Support and Expert Witness services will be charged at a Senior Principal rate of \$250/hour. Deposition and testimony services are charged at 1.5 times the Senior Principal billing rate.

GENERAL EXPENSE NOTES:

1. Rates quoted are for expenses only, equipment purchased on the client's behalf is marked up 25%.
2. Personnel rates are billed separately from general expenses.
3. Standard non-disposable protective outer-wear or equipment damaged or contaminated by site conditions are billed at replacement cost plus 30%.
4. General expense mark-ups may be negotiated based upon contract size and payment terms.
5. The per diem rates set forth above are the standard rates we typically use for our technical staff on projects. We reserve the right to modify these rates in high cost areas.
6. Mileage rate is based on gasoline price of \$3.50 per gallon. A fuel surcharge may be added if a condition beyond Weaver Consultants Group control warrants it.

TESTING AND EQUIPMENT RENTAL NOTES:

1. Rates for testing and equipment not listed above are available on request.
2. Testing and equipment rental costs are negotiable for specific projects and for on-site laboratory programs.
3. Laboratory unit prices cover equipment and labor costs to perform standard test procedures and laboratory reports with normal turn-around times. Non-standard testing requirements, supervisory and project management costs, data evaluation costs, and environmental sample disposal costs are not included in the testing unit prices and are billed separately.
4. Equipment rental rates are for equipment costs only. Transportation, calibration and personnel costs are billed separately.
5. Daily and weekly rates cover a maximum of 10 and 50 hours respectively.
6. SAMPLES WILL NOT BE RETAINED beyond classification and testing unless other arrangements are agreed to in writing. Environmental samples remain the property of the client.

Any modification to this fee schedule requires the written approval of Weaver Consultants Group

NOTICE TO VENDORS

Section 285.525 – 285.550 RSMo Effective January 1, 2009

Effective January 1, 2009 and pursuant to RSMo 285.530 (1), No business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri.

As a condition for the award of any contract or grant in excess of five thousand dollars by the state or by any political subdivision of the state to a business entity, or for any business entity receiving a state administered or subsidized tax credit, tax abatement, or loan from the state, the business entity shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Every such business entity shall sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. [RSMO 285.530 (2)]

An employer may enroll and participate in a federal work authorization program and shall verify the employment eligibility of every employee in the employer's hire whose employment commences after the employer enrolls in a federal work authorization program. The employer shall retain a copy of the dated verification report received from the federal government. Any business entity that participates in such program shall have an affirmative defense that such business entity has not violated subsection 1 of this section. [RSMO 285.530 (4)]

For vendors that are not already enrolled and participating in a federal work authorization program, E-Verify is an example of this type of program. Information regarding E-Verify is available at:

http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm.

CITY OF COLUMBIA, MISSOURI
WORK AUTHORIZATION AFFIDAVIT
PURSUANT TO 285.530 RSMo
(FOR ALL CONTRACTS IN EXCESS OF \$5,000.00)

County of St. Joseph)
) ss.
State of Indiana)

My name is Ali Hashimi. I am an authorized agent of Weaver Consultants Group (Bidder). This business is enrolled and participates in a federal

work authorization program for all employees working in connection with services provided to the City of Columbia. This business does not knowingly employ any person who is an unauthorized alien in connection with the services being provided.

Documentation of participation in a federal work authorization program is attached to this affidavit.

Furthermore, all subcontractors working on this contract shall affirmatively state in writing in their contracts that they are not in violation of Section 285.530.1 RSMo and shall not thereafter be in violation. Alternatively, a subcontractor may submit a sworn affidavit under penalty of perjury that all employees are lawfully present in the United States.

Ali Hashimi

Affiant

Ali Hashimi

Printed Name

Subscribed and sworn to before me this 5th day of June, 2019

Sarah Christell Calhoun
Notary Public

