GEOTECHNOLOGY
A Universal Engineering Sciences Company

March 1, 2022

Mr. David Olson
Streets of West Pryor, LLC
7200 W 132nd Street, #150
Overland Park, Kansas 66213

Re: Long-Term Monitoring Plan Survey Points
Lots 7A (Area A) and 7C (Area B)
Mine Remediation at Streets of West Pryor
Lee's Summit, Missouri
Geotechnology Project No. J035637.02

Dear Mr. Olson,

According to the Long-Term Monitoring Plan (LTMP) in the *Revised Mine Remediation Plan* dated May 6, 2021, settlement monitoring is to be performed on the portions of the Streets West of Pryor development that are underlain by a limestone mine. Monitoring of potential ground movements have been accomplished using a combination of surface monitoring points (SMPs) and survey points established on sanitary and storm sewer inlets and/or manholes. These points comprise a portion of the survey monitoring network and have been located by a Missouri licensed surveyor, BHC, Inc. The network data has been and will continue to be stored, reviewed, and analyzed for potential vertical and differential settlement of infrastructure as related to the mine space. Additional points will be added as construction of surface development progresses.

Attached to this letter is the base survey for surface monitoring for the referenced lots and monitor results for Monitoring Points A100, A101, A102, C103, A104, A105, and C106. The initial survey was performed on October 12, 2021, and a second survey was conducted on December 12, 2021, in general accordance with the LTMP. The third survey was conducted on February 4, 2022 and included the installation of additional Monitoring Points A104, A105, and C106. These additional points are shown on Figure 1. Readings indicate that current settlement does not exceed the criteria in the LTMP. Therefore, the planned readings will continue every two months for the duration of surface construction. Additional monitoring points will be incorporated into the survey array as monitoring progresses. The following attachments are included for current results of the LTMP.

Figure 1	-	Monitoring Plan Locations
Figure 2	-	Monitoring Results from BHC
Table 1	-	Monitoring Point Displacement Summary

* * * * *

We appreciate the opportunity to provide geotechnical services for this project. If you have a question regarding this letter, or if we may be of additional service to you, please contact the undersigned.

Respectfully submitted,

GEOTECHNOLOGY, LLC

Tanner N. Merz, E.I.
Engineer

Andrea Prince, P.G.
Senior Project Manager

TNM/ALP:dwg/tnm

Initial Monitoring Point Locations
Points Set Oct. 12, 2021

Point #	Northing	Easting	Elevation	Location
10	1006769.45	2812901.61	991.64	
11	1006257.74	2812883.60	988.26	
12	1005931.23	2812945.04	981.94	
13	1006095.56	2812426.36	996.03	
14	1007194.74	2811647.86	961.89	
100	1006796.43	2812899.00	992.88	Inlet
101	1006763.01	2812554.02	982.86	Inlet B-1
102	1006414.57	2812733.04	987.35	Inlet A-3
103	1006322.29	2812351.55	988.07	Inlet A-1

Value Greater than 0.08'

Value Greater than 0.04'

Value Greater than 0.02'

Note: Point's 10-14 above are Control Point's for monitoring. Point's 100-103 are monitoring points as shown on the exhibit. Monitoring Point #100 is on an Inlet @ NE Corner of Site

First Monitoring Results
Dec. 12, 2021
Note: Differences Below Between
Oct. 12, 2021 & Dec. 12, 2021

Point #	Northing Difference	Easting Difference	Elevation Difference	Observed Elevation	Location
2100	-0.03	0.01	0.04	992.84	
2101	-2.90	-2.00	0.01	982.87	
2102	1.55	-5.17	-0.02	987.33	
		See Note Below			
104	1006511.50	2812680.58	987.40		Inlet E-2
105	1006601.94	2812547.13	986.35		Inlet F-2
106	1006319.59	2812353.76	988.24		Inlet A-1

Note: Lid replaced and marked removed on Inlet A-1 after initial monitoring. Point's 104-106 above are new or replacement monitoring points on the site. Inlet Lids on Structures B-1 and A-3 have been adjusted since the initial monitoring. The new location of points will now be monitored.

Note: The certification on this exhibit is to verify that the horizontal and vertical positions shown hereon were collected under my direct supervision. This certification does not intend to show anything other what is shown on the exhibit. We are not certifying any reason or cause for the differences in the locations or elevations.

Second Monitoring Results
Feb. 4, 2022
Note: Differences Below Between
Oct. 12, 2021 & Feb. 4, 2022 (Point 100)
Dec. 12, 2021 & Feb. 4, 2022 (Points 101, 102, & 104-106)

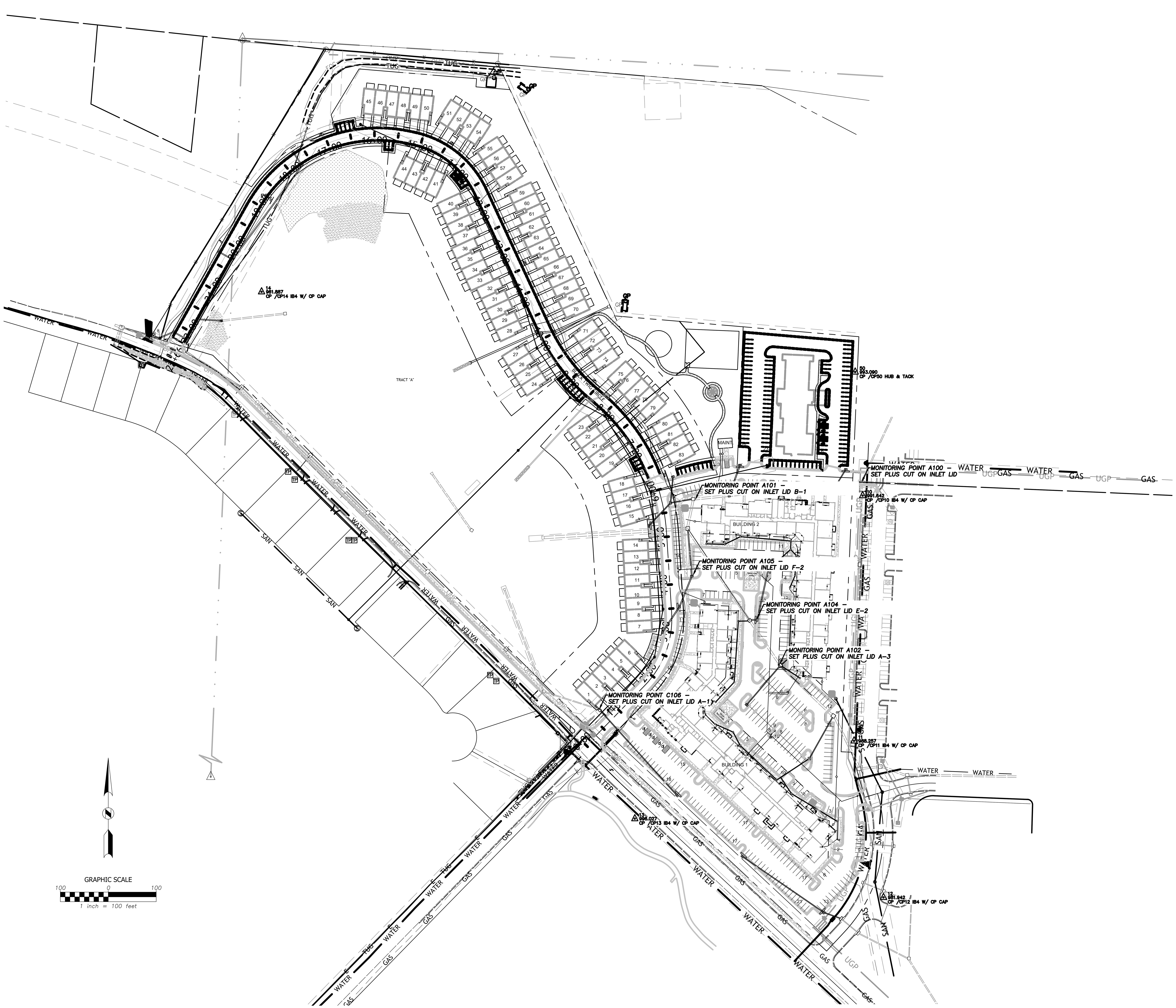
Point #	Northing Difference	Easting Difference	Elevation Difference	Observed Elevation	Location
3100	-0.04	-0.01	0.01	992.89	Inlet
3101	-0.03	-0.06	0.06	982.92	Inlet B-1
3102	-0.02	-0.03	0.02	987.37	Inlet A-3
3104	0.00	-0.04	0.04	987.44	Inlet E-2
3105	-0.04	-0.05	0.06	986.41	Inlet F-2
3106	0.02	-0.17	0.04	988.28	Inlet A-1

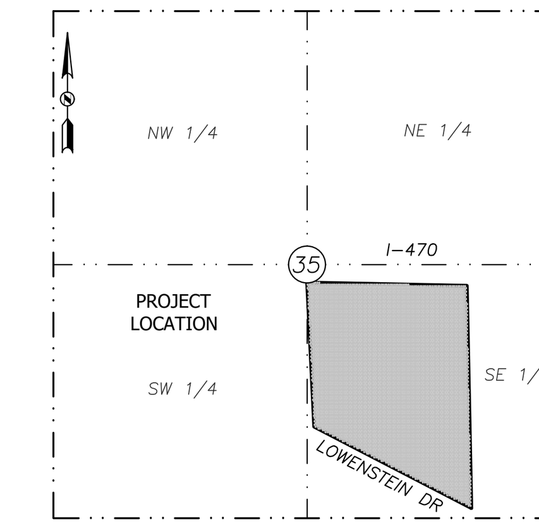
Note: Differences Below Between
Dec. 12, 2021 & Feb. 4, 2022

3100	-0.01	-0.02	0.05	992.89
3101	-0.03	-0.06	0.05	982.92
3102	-0.02	-0.03	0.04	987.37

Note: The certification on this exhibit is to verify that the horizontal and vertical positions shown hereon were collected under my direct supervision. This certification does not intend to show anything other what is shown on the exhibit. We are not certifying any reason or cause for the differences in the locations or elevations.

STREETS OF WEST PRYOR MONITORING EXHIBIT





GENERAL NOTES

1. Basis of Bearings: Initial Monitoring control was derived from GPS Static data collected on several of the Monitoring Control Points and submitted to OPUS for data processing. The OPUS provided data was referenced to the Missouri State Plane Coordinate System, West Zone (NAD83). The coordinates derived from this OPUS solutions were then adjusted to ground using the CAF from the Final Plat of "Streets of West Pryor Lots 1 thru 14, Tracts "A", "B", "C", & "D". Using the CAF from the above mentioned plat allows the monitoring points to be on a similar datum to the proposed site design. The ground coordinates were scaled from zero using the CAF of 0.99990084.

2. The monitoring control and the initial monitoring points were then traversed using a Trimble SX10 instrument and subsequently adjusted using MicroSurvey StarNet Version 9 software. A level run was run through control points 10 thru 13 to assist in establishing the initial monitoring control.

3. Base Line Control Points were intentionally placed off of the site in order to avoid placing them over areas of the mine that are currently being remediated.

4. This monitoring survey is based on field work completed on the date shown in the title block.

5. Monitoring points are labeled to indicate which section of mine remediation zone that they are closest to and a point number to assist in the survey monitoring. Example A100 = "A" indicates the "A" remediation zone and "100" is the survey point used while monitoring.

6. It has been indicated that some of the inlet lids will be moved during the progress of the construction. It has been requested that when the inlets are being adjusted that monitoring will be taken before and after the inlet has been adjusted in order to maintain a viable monitoring point that will be maintained through the monitoring term.

Rev.	Date	Description	Drawn	Checked
	12/16/2021	Second Monitoring & Placement of Additional Monitoring Points		

BHC
CIVIL ENGINEERING / SURVEYING / UTILITIES
712 State Avenue, Kansas City, KS 66101
Phone: (913) 371-5300
BHC is a trademark of Brungardt, Honomichl & Company, P.A.

Client:
Monarch Acquisitions LLC
Dave Olson
P.O. Box 24302
Overlaon Park, KS 66283

Project:
Streets of West Pryor Monitoring Exhibit
Lots 7A, 7B, and 7C
Section 35, Township 48, Range 32
Lee's Summit, Jackson County, Missouri

Project No:	028440.00.01
Field Crew:	MS, DH
Field Date:	10/13/2021
Drawn By:	MS
Issue Date:	10/15/2021
Sheet:	1 OF 1

GEOTECHNOLOGY
A Universal Engineering Sciences Company

Monitoring Point Displacement Summary
Streets West of Pryor
Lee's Summit Missouri
Geotechnology Project No. J035637.02

Displacement for A100

Date	Elevation Change (ft)	Total Northing Change (ft)	Total Easting Change (ft)	Northing (ft)	Easting (ft)	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)
10/12/2021	NA	NA	NA	1006796.43	2812899	992.88	NA	NA	NA	NA
12/12/2021	-0.04	-0.03	0.01	1006796.40	2812899.01	992.84	0.19	-0.48	-0.48	-2.50
2/4/2022	0.05	-0.01	-0.02	1006796.39	2812898.99	992.89	0.12	0.60	0.12	4.87

Displacement for A101

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)
10/12/2021	NA	NA	NA	1006763.01	2812554.02	982.86	NA	NA	NA	NA
12/12/2021	0.01	-2.90	-2.00	1006760.11	2812552.02	982.87	0.19	0.12	0.12	0.63
2/4/2022	0.05	-0.03	-0.06	1006760.08	2812551.96	982.92	0.12	0.60	0.60	4.87

Displacement for A102

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)
10/12/2021	NA	NA	NA	1006414.57	2812733.04	987.35	NA	NA	NA	NA
12/12/2021	-0.02	-1.55	5.17	1006413.02	2812738.21	987.33	0.19	-0.24	-0.02	-0.10
2/4/2022	0.04	-0.02	-0.03	1006413.00	2812738.18	987.37	0.12	0.48	0.04	3.89

Displacement for C103

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)
10/12/2021	NA	NA	NA	1006322.29	2812351.55	988.07	NA	NA	NA	NA
12/21/2021	Removed after initial monitoring	NA	NA	NA	NA	NA	NA	NA	NA	NA

Displacement for A104

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)
12/21/2021	NA	NA	NA	1006511.50	2812680.58	987.40	NA	NA	NA	NA
2/4/2022	0.04	0.00	-0.04	1006511.50	2812680.54	987.44	0.12	0.48	0.48	3.89

Displacement for A105

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)
12/12/2021	NA	NA	NA	1006601.94	2812547.13	986.35	NA	NA	NA	NA
2/4/2022	0.06	-0.04	-0.05	1006601.90	2812547.08	986.41	0.12	0.72	0.06	5.84

Displacement for C106

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)
12/12/2021	NA	NA	NA	1006319.59	2812353.76	988.24	NA	NA	NA	NA
2/4/2022	0.04	0.02	-0.17	1006319.61	2812353.59	988.28	0.12	0.48	0.04	3.89

* negative values indicate a decrease in elevation
**Graphs to be provided after obtaining a sufficient amount of survey recordings