CITY OF OREGON CITY Amendment No. 2 to Personal Services Agreement

Trillium Park Drive Slide Monitoring (PS 17-001)

This is an Amendment to the Personal Services Agreement by and between the City of Oregon City (hereinafter City), and **Geotechnical Resources**, **Inc.**, hereinafter called "Consultant," which was previously entered into on **March 13**, **2017** ("Contract") for **Trillium Park Drive Slide Monitoring**; and

Whereas, the parties wish to amend the Contract as set forth below:

WITNESSETH:

1. The **Scope of Work** is hereby amended as follows:

The Consultant shall perform additional work as outlined in attached Exhibit A.

2. The **Duration of Contract** is hereby amended as follows:

No changes.

3. The **Payment Provisions** are hereby amended as follows:

For provision of additional services, the contract price shall be increased by an amount not to exceed twelve thousand, eight hundred and seventy-five dollars (\$12,875). The total not to exceed amount of the Agreement shall be fifty-seven thousand, four hundred and three dollars (\$57,403).

All other provisions of the Personal Services Agreement referenced above shall remain in full force and effect.

GEOTECHNICAL RESOURCES, INC.	CITY OF OREGON CITY					
Name: 620ptx FRUTAG	By: Title: DATED:	John M. Lewis, P.E. Public Works Director				
Title: PRINCIPAL Date: 5/30/17	By: Title: DATED:	Anthony J. Konkol III City Manager, 2017				
	APPROV	ZED AS TO LEGAL SUFFICIENCY: City Attorney				

Amendment 2 for Additional Inclinometer Installation Trillium Park Drive Area Prepared for City of Oregon City Oregon City, Oregon

May 26, 2017

At your request, GRI has prepared this amendment scope and budget for installation and monitoring of one additional inclinometer for the landslide area near Trillium Park Drive in Oregon City. Our scope was developed after our meeting with City personnel on May 25, 2017. This amendment will include installation of one additional inclinometer within the City right-of-way to assist with long-term monitoring of the public infrastructure.

SCOPE OF WORK

 One boring will be made to a depth of 100 ft in Swordfern Court at a final location yet to be established. The boring will be made with a truck-mounted drill rig using mud-rotary drilling techniques. Disturbed split-spoon samples will be obtained at periodic intervals during drilling. GRI will maintain a log of the various materials and conditions encountered in the boring and collect soil and rock samples.

Upon completion of drilling, an inclinometer casing and vibrating-wire piezometer will be grouted into the borehole to allow measurement of location and rate of future displacement and piezometric pressures in the soil and rock. The piezometer will be equipped with a data logger to permit readings to be obtained at hourly intervals. The inclinometer will be initialized soon after installation.

The boring will be drilled in Swordfern Court and we assume a formal traffic plan, lane closure, and/or flagging will not be required. We will use traffic cones and signage to identify the work area, and will not block private driveways. Drill cuttings will be transported off site to a permitted disposal facility. We assume the City will provide a hydrant or other water source to GRI at no charge. Final inclinometer location to be determined with City staff at a field meeting.

- 2) A summary memorandum will be prepared that provides the log of the boring and inclinometer installation, along with the three inclinometers planned as part of Amendment 1.
- 3) Beginning in winter 2017, GRI will monitor the inclinometer and download the piezometer data. We have budgeted for three rounds of monitoring that will extend into spring 2018. A brief memorandum presenting the inclinometer, piezometer, and rainfall data will be provided after each monitoring event. The memorandum will include discussion of findings from the three inclinometers planned as part of Amendment 1.

SCHEDULE, TERMS, AND FEE

We have scheduled the inclinometer installation work for June 12th through June 18th, and June 19th to be concurrent with other drilling work for the City.

We anticipate this work can be completed as an Amendment to our existing Personal Services Agreement, dated March 13, 2017.

As shown on the attached Breakdown of Costs, we recommend you budget \$12,875 for the above scope of work. Contact George Freitag or Mike Marshall with questions.





GRI BREAKDOWN OF COSTS
Project Name: Trillium Park Drive Landslide, Amendment 2 Additional Inclinometer Installation and Monitoring
Project Breakdown of Costs (BOC)
5/26/2017

	Staff Role/Title: Staff Name;	Principal	Project Engr/Geol	CADD Drafter	Technical Editor	Contract Admin / Accountant				
	2017 Rate Schedule:	\$ 215.00	\$ 140.00	\$ 100.00	\$ 120.00	\$ 125.00				
Task ID	Task Description									
		Hrs	Hrs	Hrs	Hrs	Hrs	Total Hours	Total Labor	Direct Expenses	TOTALS
	Amendment 2 Additional Inclinometer Installation and Monitoring	9	24	1	1		35	\$ 5,515.00	\$ 7,360.40	\$ 5,515.00
1	Inclinometer Installation		12				12	\$ 1,680.00		\$ 1,680.00
2	Inclinometer Initialization		2				2	\$ 280.00		\$ 280.00
3	Summary Memorandum (with Amd 1*)	1	2	1	1		5	\$ 715.00		\$ 715.00
4	Periodic Measurement and Memorandum (with Amd 1*)	4	8				12	\$ 1,980.00		\$ 1,980.00
5	Project Management	4					4	\$ 860.00		\$ 860.00
Vote* - sin	gle Summary Memorandum and Perodic Memoranda for Amd 1 and 2		a	-						
								\$ -		\$ -
	Tasks Summary of Hours	9	24	1	1		35	\$ 5,515.00	\$ 7,360.40	\$ 12,875.40
									Project Total: ended Budget	



Project Name: Trillium Park Drive Landslide, Amendment 2 Additional Inclinometer Installation and Monitoring

Project Breakdown of Costs (BOC) Updated: 5/26/17

Task ID	Task Description	Basis of Estimate		
			\$	7,360.40
1	Drilling	1, 100 ft deep inclinometer	\$	4,019.00
1	Piezometer and cable (1)	1 @ \$500	\$	500.00
1	Data Logger (1)	1 @ \$820	\$	820.00
1	Mileage (40 mi roundtrip, 1 trip)	40 miles from Beaverton to Oregon City @ 53.5 cents per mile	\$	21.40
1	Cuttings disposal (4 holes=16 drums)	16 @ \$125	\$	2,000.00
			\$	
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77				
		Total Direct Expenses	\$	7,360.40