

**CITY OF OREGON CITY**  
**Amendment No. 1 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.

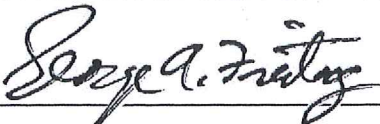
3. The **Payment Provisions** are hereby amended as follows:

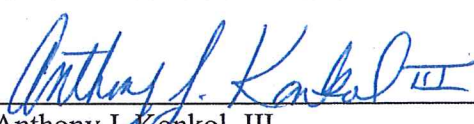
For provision of additional services, the contract price shall be increased by an amount not to exceed **thirty-two thousand, five hundred and twenty-eight dollars (\$32,528)**. The total not to exceed amount of the Agreement shall be **forty-four thousand, five hundred and twenty-eight dollars (\$44,528)**.

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

**GEOTECHNICAL RESOURCES, INC.**

**CITY OF OREGON CITY**


By: 

  
Anthony J. Konkol, III  
City Manager

Name: George A. Freitag

Date: 5-3-17

Title: Principal

  
Martin Montalvo  
Operations Manager/Acting Public Works Dir.

Date: 5-3-2017

Date: 5-3-17

**Amendment 1 for Inclinometer Installation  
Trillium Park Drive Area  
Prepared for City of Oregon City  
Oregon City, Oregon**

At your request, GRI has prepared this amendment scope and budget for additional inclinometer installation and monitoring related to the landslide that occurred along Trillium Park Drive in Oregon City. Our scope was developed after our meeting with City personnel on April 19, 2017. This amendment will include installation of inclinometers within the City rights-of-way to assist with long-term monitoring of the public infrastructure.

**SCOPE OF WORK**

- 1) One boring will be made to a depth of 100 ft in Trillium Park Drive to replace the inclinometer that sheared in February 2017. Two other borings will be advanced in Canyon Court and Wake Robin Court at locations yet to be established. The borings 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 boreholes to allow measurement of location and rate of future displacement and piezometric pressures in the soil and rock. The piezometers will be equipped with a data logger to permit readings to be obtained at hourly intervals. The inclinometers will be initialized soon after installation.

We assume the borings will be drilled in existing roadways, and traffic plans, lane closures, and/or flagging will not be required. We have assumed drill cuttings can be transported to a City facility for reuse or recycling, and the City will provide a hydrant water source to GRI at no charge.

- 2) A summary memorandum will be prepared that provides the logs of the borings and inclinometer installation.
- 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.

**SCHEDULE, TERMS, AND FEE**

We have scheduled the inclinometer installation work for June 12<sup>th</sup> through June 16<sup>th</sup> 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 \$32,528 for the above scope of work.

**Exhibit A**



Staff Role/Title: Staff Name: 2017 Rate Schedule:		Principal	Project Engr/Geol	CADD Drafter	Technical Editor	Contract Admin / Accountant				
Task ID	Task Description									
		Hrs	Hrs	Hrs	Hrs	Hrs	Total Hours	Total Labor	Direct Expenses	TOTALS
Amendment 1 Inclinometer Installation and Monitoring		18	80	4	4	2	108	\$ 16,200.00	\$ 20,032.00	\$ 16,264.20
1	Inclinometer Installation		40				40	\$ 5,600.00		\$ 5,600.00
2	Inclinometer Initialization		8				8	\$ 1,120.00	\$ 64.20	\$ 1,184.20
3	Summary Memorandum	4	8	4	4		20	\$ 2,860.00		\$ 2,860.00
4	Periodic Measurement and Memorandum (3)	4	24				28	\$ 4,220.00		\$ 4,220.00
5	Project Management	10				2	12	\$ 2,400.00		\$ 2,400.00
							\$ -		\$ -	
Tasks Summary of Hours		18	80	4	4	2	108	\$ 16,200.00	\$ 20,096.20	\$ 32,528.40
Project Total: \$ 32,528.40										
Recommended Budget \$ 32,528.00										



Project Name: **Trillium Park Drive Landslide, Amendment 1 Inclinometer Installation and Monitoring**

Project Breakdown of Costs (BOC)

Updated: 4/27/17

Task ID	Task Description	Basis of Estimate	Amount
			\$ 20,032.60
1	Drilling	3, 100 ft deep inclinometers (est from WSCC, dated 4/14/17)	\$ 15,880.00
1	Piezometers and cable (3)	3 @ \$500	\$ 1,500.00
1	Data Loggers (3)	3 @ \$820	\$ 2,460.00
1	Mileage (40 mi roundtrip, 6 trips)	240 miles from Beaverton to Oregon City @ 53.5 cents per mile	\$ 128.40
			\$ 64.20
2	Mileage (40 mi roundtrip, 3 trips)	120 miles from Beaverton to Oregon City @ 53.5 cents per mile	\$ 64.20
			\$ -
Total Direct Expenses			\$ 20,096.80