

Tutela Heights Road Slope Stability Monitoring Program

The below program has been developed to monitor the slope along Tutela Heights Road, from the east end of the Bell Homestead property to approximately one kilometre east, as noted as the “Slope Area” below.



Item/Action	Frequency
Observations of the surface movements by survey of Monitoring Points - Standard Iron Bars (SIB). Monitoring point locations shown on attached Plan	Semi Annually
Observations of the subsurface movements by monitoring the 3 installed inclinometers located on Tutela Heights Road including geotechnical conditions evaluation. Inclinometer locations shown on attached Plan	Quarterly – 4 time per year
Geotechnical review of Monitoring Data	Subject to the observation results of the current monitoring of the survey points and the inclinometers subsurface movements if unstable slope condition noted
Updates on slope monitoring	Annually on the County and City Website
In River Groynes condition	Once and as required thereafter

MONITORING POINT - MOVEMENT SUMMARY (PLANTED BARS)																																																									
	MP-01-14			MP-02-14			MP-03-14			MP-04-14			MP-05-14			MP-06-14			MP-07-14			MP-08-14			MP-09-14			MP-10-14			MP-11-14			MP-12-14			MP-13-14			MP-14-14			MP-15-14			MP-16-14			MP-17-14			MP-18-14			MP-19-14		
	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE	ELEV.	HORZ. CHANGE	N.S.E.W. CHANGE												
JAN. 13/2015	225.99	---	---	224.16	---	---	216.41	---	---	205.93	---	---	199.24	---	---	203.01	---	---	198.54	---	---	202.13	---	---	198.52	---	---	200.05	---	---	207.59	---	---	204.28	---	---	202.96	---	---	212.07	---	---	223.24	---	---	204.28	---	---	210.25	---	---	218.75	---	---	221.72	---	---
APR. 24/2015	225.99	0.02m	---	224.17	0.02m	---	216.39	0.02m	---	205.95	0.02m	---	199.16	0.01m	---	203.00	0.05m	---	198.54	0.04m	---	202.11	0.04m	---	198.52	0.03m	---	200.08	0.02m	---	207.60	0.01m	---	204.22	0.04m	---	202.98	0.01m	---	212.07	0.05m	---	223.24	0.04m	---	204.27	0.02m	---	210.25	0.01m	---	218.73	0.03m	---	221.71	0.04m	---
NOV. 5/2015	225.99	0.02m	---	224.15	0.02m	---	216.43	0.03m	---	205.91	0.05m	---	199.23	0.02m	---	203.00	0.02m	---	198.55	0.02m	---	202.10	0.02m	---	198.50	0.00m	---	200.01	0.04m	---	207.60	0.04m	---	204.27	0.02m	---	202.96	0.01m	---	212.04	0.05m	---	223.21	0.01m	---	204.28	0.01m	---	210.26	0.01m	---	218.74	0.02m	---	221.71	0.01m	---
MAY 8/2018 (DISTURBED)	225.95	0.16m	---	224.13	0.04m	---	216.37	0.03m	---	205.88	0.05m	---	199.16	0.05m	---	202.94	0.02m	---	198.52	0.07m	---	202.06	0.31m	---	198.48	0.05m	---	200.00	0.04m	---	207.57	0.21m	---	204.27	0.02m	---	202.95	0.06m	---	212.03	0.27m	---	223.16	0.04m	---	204.21	0.05m	---	210.24	0.03m	---	218.73	0.03m	---	221.69	0.03m	---
DEC. 11/2018	225.94	0.14m	S 0.12m W 0.07m	224.12	0.03m	N 0.03m E 0.02m	216.87	0.04m	N 0.04m E 0.01m	205.85	0.04m	N 0.04m E 0.02m	199.15	0.07m	N 0.07m E 0.02m	202.96	0.05m	N 0.05m E 0.02m	198.50	0.07m	N 0.07m W 0.01m	202.09	0.37m	N 0.35m E 0.11m	198.46	0.04m	N 0.04m E 0.02m	200.03	0.03m	N 0.03m W 0.01m	207.53	0.23m	N 0.15m W 0.18m	204.21	0.04m	N 0.04m W 0.01m	202.99	0.05m	N 0.05m E 0.00m	212.02	0.27m	N 0.27m E 0.01m	223.22	0.01m	S 0.01m E 0.01m	204.21	0.04m	N 0.03m E 0.02m	210.24	0.03m	S 0.01m E 0.03m	218.72	0.02m	N 0.02m E 0.01m	221.70	0.02m	N 0.01m E 0.02m

1. MONITORING POINTS IN THIS CHART PLANTED ON JAN. 13/2015.
 2. DISTANCE CHANGE IS FROM THE JAN. 13/2015 LOCATIONS.
 3. NORTH/SOUTH/EAST/WEST (N.S.E.W.) CHANGE IS FROM THE JAN. 13/2015 LOCATIONS.



LEGEND:

- 200.00 EXISTING ELEVATIONS
- GENERAL DIRECTION OF MOVEMENT
- EXISTING TOP OF SLOPE (JAN. 15, 2015)
- - - EXISTING TOP OF SLOPE (APR. 24, 2015)

- NOTES:**
- ALL ELEVATIONS & DISTANCES SHOWN ARE METRIC.
 - MONITORING POINTS PLANTED ON JAN. 13/2015.
 - HORIZONTAL MEASUREMENTS ACCURATE TO ±0.02m

NO.	REVISION	DATE (MM/DD/YY)	BY
4	ADDED DEC. 11/2018 SURVEY	12/11/18	K.P.B.
3	ADDED MAY 8/2018 SURVEY	08/10/18	K.P.B.
2	ADDED NOV. 5/2015 SURVEY	11/05/15	K.P.B.
1	ADDED APR. 24/2015 SURVEY	04/24/15	K.P.B.

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 CONSULTING ENGINEERS
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 TEL. (519) 753-2656 FAX. (519) 753-4263 www.cohooneg.com

PROJECT:
TUTELA HEIGHTS ROAD SLOPE STABILITY
 COUNTY OF BRANT

CLIENT:
 ENGLOBE CORP

SITE PLAN

DESIGN:	SCALE: 1:1000
DRAWN: K.P.B.	JOB No: 11051
CHECKED: J.H.C.	
SHEET: 1 of 1	DWG. No: 11051-M1
DATE: FEB. 19/15	

Tutela Heights Road - Inclinometer Locations

