PAYROLL ESCALATION TABLE OAK PARK AVE CORRIDOR

FIRM NAME PRIME/SUPPLEMENT	TERRA Engineering Ltd Prime		C	DATE <u>07/17/19</u>	-	
	CONTRACT TERM START DATE RAISE DATE	13 M 8/1/2019 1/1/2020	C	OVERHEAD RATE COMPLEXITY FACTOR % OF RAISE	160.60% 0 0.00%	
		ESCALATION PER YE	EAR			
	8/1/2019 - 1/1/2020	1/2/2020 - 9/1/2020				
	<u> </u>	8 13				
	= 38.46% = 1.0000	61.54%				
	The total escalation for this pr	roject would be:	0.00%			

PAYROLL RATES

TERRA Engineering Ltd
Prime

DATE 07/17/19

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Sr. Project Manager	\$75.00	\$75.00
Sr. Structural Engineer	\$60.25	\$60.25
Project Manager	\$55.59	\$55.59
Sr. Project Engineer	\$47.00	\$47.00
Project Engineer	\$34.86	\$34.86
Design Engineer	\$26.44	\$26.44
Sr. Landscape Architect	\$53.84	\$53.84
Landscape Architect	\$35.58	\$35.58
Landscape Designer	\$26.08	\$26.08
GIS Analyst	\$26.92	\$26.92
Surveyor	\$37.60	\$37.60
Sr. Traffic Technician	\$28.88	\$28.88
Sr. CADD Technician	\$29.81	\$29.81
Administrative Assistant	\$22.59	\$22.59
		\$0.00

COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

FIRM PROJECT

TERRA Engineering Ltd

PRIME/SUPPLEMENT

Oak Park Ave Corridor Prime OVERHEAD RATE 160.60% COMPLEXITY FACTOR

			OVERHEAD			SERVICES			% OF
	HOURS	PAYROLL	&	DIRECT	FIXED	BY	DBE	TOTAL	GRAND
TASK			FRINGE BENF	COSTS	FEE	OTHERS	TOTAL		TOTAL
	(A)	(B)	(C)	(D)	(E)	(G)	(H)	(B-G)	
1. Streetscape Project (Hemingway Dist)	124	5,307	8,522	0	1,521			15,350	2.0%
2. Water and Sewer Main	1,036	37,981	60,998	500	10,888			110,367	14.2%
3. Roadway Resurfacing	1,180	44,262	71,085	500	12,688			128,535	16.6%
Southtown Business District	166	5,627	9,036	250	1,613			16,526	2.1%
5A. Washington Blvd Intersection	216	7,004	11,248	400	2,008			20,659	2.7%
5B. Randolph St Intersection	216	7,004	11,248	400	2,008			20,659	2.7%
6. North Blvd / South Blvd Signal Modernization	132	4,820	7,741	1,200	1,382			15,142	2.0%
7. Geotechnical and Pavement Investigation	68	2,561	4,113	250	734			7,658	1.0%
8. Environmental Studies (ESR, PESA, PSI)	200	7,615	12,229	0	2,183			22,026	2.8%
9. Topographic Survey	180	6,301	10,119	1,000	1,806			19,225	2.5%
10. Vaulted Sidewalks and GPR Survey	160	6,928	11,126	0	1,986			20,039	2.6%
11. Forestry Coordination	24	1,299	2,086	0	372			3,758	0.5%
12. Union Pacific RR Viaduct	106	5,825	9,354	0	1,670			16,848	2.2%
13. Public Input, Meetings and Website	76	3,529	5,667	250	1,011			10,457	1.3%
14. Administration	260	11,153	17,912	0	3,197			32,263	4.2%
Subconsultants									
Design Workshop						140,300		140,300	18.1%
a5 Branding & Digital						30,000		30,000	3.9%
Lochner						76,439		76,439	9.9%
Chicago Testing Laboratory						68,785		68,785	8.9%
TOTALS	4,144	157,213	252,484	4,750	45,067	315,524	-	775,037	100.0%

FIRM PROJECT

PRIME/SUPPLEMENT

TERRA Engineering Ltd Oak Park Ave Corridor Prime

DATE 08/23/19

SHEET <u>1</u> OF <u>3</u>

PAYROLL	AVG	TOTAL	PROJECT	RATES		reetscape I mingway [•	2. Wat	er and Sew	ver Main	3. Roa	dway Resi	urfacing	4. Sou	uthtown Bu District	isiness		Vashingtor ntersection	
	HOURLY	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd
CLASSIFICATION	RATES		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg
Sr. Project Manager	75.00	126	3.0%	2.28				48	4.6%	3.47	56	4.7%	3.56						├────
Sr. Structural Engineer	60.25	108	2.6%	1.57															I
Project Manager	55.59	474	11.4%	6.36	18	14.5%	8.07	88	8.5%	4.72	104	8.8%	4.90	4	2.4%	1.34	8	3.7%	2.06
Sr. Project Engineer	47.00	472	11.4%	5.35				140	13.5%	6.35	200	16.9%	7.97				24	11.1%	5.22
Project Engineer	34.86	780	18.8%	6.56				260	25.1%	8.75	300	25.4%	8.86				48	22.2%	7.75
Design Engineer	26.44	832	20.1%	5.31				280	27.0%	7.15	320	27.1%	7.17				88	40.7%	10.77
Sr. Landscape Architect	53.84	124	3.0%	1.61	48	38.7%	20.84							24	14.5%	7.78			I
Landscape Architect	35.58	108	2.6%	0.93	22	17.7%	6.31							54	32.5%	11.57			1
Landscape Designer	26.08	120	2.9%	0.76	36	29.0%	7.57							84	50.6%	13.20			1
GIS Analyst	26.92	40	1.0%	0.26				40	3.9%	1.04									1
Surveyor	37.60	120	2.9%	1.09															1
Sr. Traffic Technician	28.88	24	0.6%	0.17															1
Sr. CADD Technician	29.81	716	17.3%	5.15				180	17.4%	5.18	200	16.9%	5.05				48	22.2%	6.62
Administrative Assistant	22.59	100	2.4%	0.55															
		0																	
TOTALS		4,144	100.0%	\$37.94	124	100.0%	\$42.80	1036	100.0%	\$36.66	1180	100.0%	\$37.51	166	100.0%	\$33.89	216	100.0%	\$32.42

FIRM PROJECT

TERRA Engineering Ltd

PROJECT PRIME/SUPPLEMENT Oak Park Ave Corridor Prime DATE 08/23/19

SHEET <u>2</u> OF <u>3</u>

PAYROLL	AVG	5B. Ran	dolph St Int	ersection		rth Blvd / So nal Moderniz			Geotechnica ment Investi			vironmental SR, PESA, F		9.	Topographic	: Survey		aulted Sidewa GPR Survey	
	HOURLY	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd
CLASSIFICATION	RATES		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg
Sr. Project Manager	75.00										4	2.0%	1.50					ļ	
Sr. Structural Engineer	60.25																60	37.5%	22.59
Project Manager	55.59	8	3.7%	2.06	4	3.0%	1.68	8	11.8%	6.54	24	12.0%	6.67				16	10.0%	5.56
Sr. Project Engineer	47.00	24	11.1%	5.22	40	30.3%	14.24	12	17.6%	8.29	32	16.0%	7.52					L	
Project Engineer	34.86	48	22.2%	7.75	40	30.3%	10.56	24	35.3%	12.30	60	30.0%	10.46					<u> </u>	
Design Engineer	26.44	88	40.7%	10.77	32	24.2%	6.41										24	15.0%	3.97
Sr. Landscape Architect	53.84																	1	
Landscape Architect	35.58																		
Landscape Designer	26.08																		
GIS Analyst	26.92																		
Surveyor	37.60													120	66.7%	25.07			
Sr. Traffic Technician	28.88																		
Sr. CADD Technician	29.81	48	22.2%	6.62	16	12.1%	3.61	24	35.3%	10.52	80	40.0%	11.92	60	33.3%	9.94	60	37.5%	11.18
Administrative Assistant	22.59																	ļ	
																		Ļ	'
																		ļ	
																		 	
																		 	<u> </u>
TOTALS		216	100.0%	\$32.42	132	100.0%	\$36.51	68	100.0%	\$37.66	200	100.0%	\$38.07	180	100.0%	\$35.00	160	100.0%	\$43.30

FIRM PROJECT

TERRA Engineering Ltd

PROJECT PRIME/SUPPLEMENT Oak Park Ave Corridor Prime

DATE 08/23/19

SHEET <u>3</u> OF <u>3</u>

PAYROLL	AVG	11. Fo	restry Coor	dination	12. Unio	on Pacific R	R Viaduct		ıblic Input, N and Websit		14	Administra	ition						
CLASSIFICATION	HOURLY RATES	Hours	% Part.	Wgtd	Hours	% Part.	Wgtd	Hours	% Part.	Wgtd	Hours	% Part.	Wgtd	Hours	% Part.	Wgtd	Hours	% Part.	Wgtd
	75.00		Part.	Avg	18	17.0%	Avg 12.74		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg
Sr. Project Manager Sr. Structural Engineer	60.25				48	45.3%	27.28												
Project Manager	55.59	4	16.7%	9.27	16	45.3 <i>%</i> 15.1%	8.39	12	15.8%	8.78	160	61.5%	34.21			 			
Sr. Project Engineer	47.00	4	10.7 %	9.27	10	13.1%	0.39	12	13.6%	0.70	100	01.5%	34.21						
Project Engineer	34.86						 									 			
Design Engineer	26.44						 									 			
Sr. Landscape Architect	53.84	20	83.3%	44.87				32	42.1%	22.67									
Landscape Architect	35.58	20	00.070	44.07				32	42.1%	14.98									
Landscape Designer	26.08							52	42.170	14.00									
GIS Analyst	26.92																		
Surveyor	37.60																		
Sr. Traffic Technician	28.88				24	22.6%	6.54												
Sr. CADD Technician	29.81					22.070	0.01												
Administrative Assistant	22.59										100	38.5%	8.69						
	22.00											001070	0.00						
							1									ł			1
							1									1			1
							1									1			1
TOTALS		24	100.0%	\$54.13	106	100.0%	\$54.95	76	100.0%	\$46.43	260	100.0%	\$42.90	0	0.0%	\$0.00	0	0.0%	\$0.00

Oak Park Ave Schematic Design - 10 month process

Design Workshop

Fee Spreadsheet

					producineo									To	tal DW	Tatal
						DES	IGN WOF	RKSHC	DP					L	abor	Total
			PIC/ KC		d Design		PM			PL			Staff			Hrs
Phase	DESCRIPTION	Hr.	\$ 300	Hr.	\$ 200	Hr.	\$	150	Hr.	\$	110	Hr.	\$ 90			
DISCOVI	ERY	_														
	1 Kick-off meeting	8	\$ 2,400	8	\$ 1,600	16	\$2	,400		\$	-	8	\$ 720	\$	7,120	
	2 Metrics preparation	2	\$ 600	8	\$ 1,600	8	\$ 1	,200	12	\$	1,320	24	\$ 2,160	\$	6,880	
	3 Graphic preparation of initial configurations	4	\$ 1,200	12	\$ 2,400	12	\$ 1	,800	32	\$	3,520	30	\$ 2,700	\$	11,620	
	4 Stakeholder Meetings - Round #1	8	\$ 2,400	10	\$ 2,000	16	\$ 2	,400		\$	-		\$ -	\$	6,800	
	5 Open House #1	12	\$ 3,600	14	\$ 2,800	20	\$ 3	,000	40	\$	4,400	60	\$ 5,400	\$	19,200	
	6 Village Board Meeting #1	8	\$ 2,400	8	\$ 1,600	16	\$ 2	,400		\$	-		\$ -	\$	6,400	
	TOTAL	42	\$12,600	60	\$12,000	88	\$ 13	,200	84	\$	9,240	122	\$10,980	\$	58,020	396
ALTERN	ATIVES DESIGN	_														
	1 Graphic Preparation of Alternatives	4	\$ 1,200	16	\$ 3,200	32	\$ 4	,800	40	\$	4,400	50	\$ 4,500	\$	18,100	
	2 Stakholder Meetings - Round #2	8	\$ 2,400	12	\$ 2,400	12	\$ 1	,800		\$	-	12	\$ 1,080	\$	7,680	
	3 Staff Workshop	8	\$ 2,400	12	\$ 2,400	12	\$ 1	,800	12	\$	1,320		\$-	\$	7,920	
	4 Village Board #2	8	\$ 2,400	12	\$ 2,400	12	\$ 1	,800		\$	-		\$-	\$	6,600	
	5 Open House #2	12	\$ 3,600	12	\$ 2,400	20	\$3	,000,	40	\$	4,400	50	\$ 4,500	\$	17,900	
	TOTAL	40	\$12,000	64	\$12,800	88	\$ 13	,200	92	\$	10,120	112	\$10,080	\$	58,200	396
FINAL S	CHEMATIC DESIGN															
	1 Graphic Presentation - Plan Renderings	4	\$ 1,200	4	\$ 800	32	\$ 4	,800	40	\$	4,400	60	\$ 5,400	\$	16,600	
	2 Village Board Meeting #3	8	\$ 2,400	4	\$ 800	12	\$ 1	,800		\$	-	22	\$ 1,980	\$	6,980	
	TOTAL	12	\$ 3,600	8	\$ 1,600	44	\$6	600,	40	\$	4,400	82	\$ 7,380	\$	23,580	186
	Total Labor (\$, Hrs)													\$	139,800	978
	Reimbursables													\$	500	
	TOTAL													\$	140,300	

PAYROLL ESCALATION TABLE FIXED RAISES

a5 Branding and Digital		DATE 08/23/19 PTB NO. 0	
CONTRACT TERM START DATE RAISE DATE	13 MONTHS 8/1/2019 1/1/2020	OVERHEAD RATE COMPLEXITY FACTOR % OF RAISE	<u>150.00%</u> 0 0.00%
	ESCALATION PER YEAR		
8/1/2019 - 1/1/2020	1/2/2020 - 9/1/2020		
5	<u>8</u> 13		
= 38.46% = 1.0000 The total escalation for this p	61.54% project would be: 0	.00%	
	CONTRACT TERM START DATE RAISE DATE 8/1/2019 - 1/1/2020 5 13 = 38.46% = 1.0000	$ \begin{array}{c} $	CONTRACT TERM 13 START DATE MONTHS OVERHEAD RATE COMPLEXITY FACTOR NONTHS OVERHEAD RATE COMPLEXITY FACTOR OVERHEAD RATE COMPLEXITY FACTOR START DATE $\frac{8/1/2019}{1/1/2020}$ % OF RAISE ESCALATION PER YEAR $\frac{8/1/2019}{13}$ $\frac{1/2/2020}{9/1/2020}$ () $\frac{5}{13}$ $\frac{8}{13}$ () $=$ $\frac{38.46\%}{1.0000}$ 61.54%

PAYROLL RATES

a5 Branding and Digital

FIRM NAME PRIME/SUPPLEMENT DATE 08/23/19

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Principal	\$40.00	\$40.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00

PREPARED BY THE AGREEMENTS UNIT

COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

FIRM PROJECT

a5 Branding and Digital

PRIME/SUPPLEMENT

Oak Park Ave Corridor

	OVERHEAD	RATE	150.00%		
	COMPLEXIT	Y FACTOR		-	
				-	
OVERHEAD			SERVICES		

			OVERHEAD			SERVICES			% OF
	MANHOURS	PAYROLL	&	DIRECT	FIXED	BY	DBE	TOTAL	GRAND
TASK			FRINGE BENF	COSTS	FEE	OTHERS	TOTAL		TOTAL
	(A)	(B)	(C)	(D)	(E)	(G)	(H)	(B-G)	
Public Input, Meetings and Website	250	10,000	15,000	2,500	2,500			30,000	100.0%
TOTALS	250	10,000	15,000	2,500	2,500	0	-	30,000	100.0%

FIRM PROJECT PRIME/SUPPLEMENT

a5 Branding and Digital

Oak Park Ave Corridor

DATE 08/23/19

1 OF 1 SHEET

PAYROLL	AVG	TOTAL	PROJECT	RATES	Public I	nput, Meeti Website	ngs and												
	HOURLY RATES	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd	Hours	%	Wgtd
CLASSIFICATION			Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg		Part.	Avg
Principal	40.00	250	100.0%	40.00	250	100.0%	40.00												
TOTALS		250	100.0%	\$40.00	250	100.0%	\$40.00	0	0.0%	\$0.00	0	0.0%	\$0.00	0	0.0%	\$0.00	0	0.0%	\$0.00

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME PRIME/SUPPLEMENT	Lochner		DATE <u>08/23/19</u> PTB NO. <u>0</u>	
	CONTRACT TERM START DATE RAISE DATE	12 MONTHS 8/1/2019 6/1/2020	OVERHEAD RATE COMPLEXITY FACTOR % OF RAISE	165.07% 0.035 0.00%
	ESCALA	TION PER YEAR		
	8/1/2019 - 6/1/2020 6/2/2020	- 8/1/2020		
		2		
	= 83.33% 16. = 1.0000 The total escalation for this project wo	67% uld be: 0.00%		

PAYROLL RATES

FIRM NAME PRIME/SUPPLEMENT DATE 08/23/19

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Principal	\$100.55	\$101.05
Senior PM	\$87.01	\$87.45
Project Manager	\$62.20	\$62.51
Senior Structural Eng.	\$64.71	\$65.03
Project Engineer	\$52.65	\$52.91
Structural Engineer	\$38.14	\$38.33
Engineer	\$36.23	\$36.41
CAD Tecnician	\$35.83	\$36.01
Clerical	\$39.73	\$39.93

Lochner

PREPARED BY THE AGREEMENTS UNIT

COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

OVERHEAD RATE

COMPLEXITY FACTOR

FIRM PROJECT

Lochner Oak Park Ave Corridor

PRIME/SUPPLEMENT

k Park Ave Corridor

			OVERHEAD			SERVICES			% OF
	MANHOURS	PAYROLL	&	DIRECT	FIXED	BY	DBE	TOTAL	GRAND
TASK			FRINGE BENF	COSTS	FEE	OTHERS	TOTAL		TOTAL
	(A)	(B)	(C)	(D)	(E)	(G)	(H)	(B-G)	
Administration	20	1,024	1,691		379			3,094	4.0%
Underpass Study	200	10,143	16,742		3,753			30,638	40.1%
Railroad Coordination	80	5,053	8,341		1,870			15,265	20.0%
Roadway Lighting	82	3,736	6,168		1,382			11,287	14.8%
Environmental	96	5,348	8,829		1,979			16,156	21.1%
TOTALS	478	25,305	41,771	0	9,363	0	-	76,439	100.0%

165.07<u>%</u>

FIRM PROJECT PRIME/SUPPLEMENT

Lochner

Oak Park Ave Corridor

DATE 08/23/19

SHEET

1 OF 1

PAYROLL	AVG	TOTAL	PROJECT	RATES	Ad	dministrati	on	Und	derpass St	udy	Railro	oad Coordii	nation	Roa	adway Ligh	ting	E	vironment	tal
CLASSIFICATION	HOURLY RATES	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	101.05	0								-									
Senior PM	87.45	32	6.7%	5.85				16	8.0%	7.00	16	20.0%	17.49						ł
Project Manager	62.51	100	20.9%	13.08	10	50.0%	31.26	24	12.0%	7.50	32	40.0%	25.00	6	7.3%	4.57	28	29.2%	18.23
Senior Structural Eng.	65.03	40	8.4%	5.44				24	12.0%	7.80	16	20.0%	13.01						
Project Engineer	52.91	144	30.1%	15.94				40	20.0%	10.58				36	43.9%	23.23	68	70.8%	37.48
Structural Engineer	38.33	56	11.7%	4.49				40	20.0%	7.67	16	20.0%	7.67						ł
Engineer	36.41	80	16.7%	6.09				40	20.0%	7.28				40	48.8%	17.76			
CAD Tecnician	36.01	16	3.3%	1.21				16	8.0%	2.88									
Clerical	39.93	10	2.1%	0.84	10	50.0%	19.96												
					Ī						Ī								
TOTALS		478	100.0%	\$52.94	20	100.0%	\$51.22	200	100.0%	\$50.71	80	100.0%	\$63.17	82	100.0%	\$45.57	96	100.0%	\$55.71



Oak Park Avenue Resurfacing, Utility and Streetscape	Project	Site Preparation (/hr)	Engineering Technician (/hr)	Coring Equipment (/day)	Vehicle (/day)	Lane Closure (/day)	Project Manager - Field (/hr)	Soil Borings (each)	Moisture Content (each)	Atterberg Limits (each)	Soil Gradation (each)	Reporting (/hr)	QA Review (/hr)
Item Description	Approximate Quantities	\$120.00	\$110.00	\$300.00	\$35.00	\$800.00	\$120.00	\$700.00	\$10.00	\$85.00	\$125.00	\$120.00	\$160.00
Geotechnical Investigation (13' boring depth)	32 Borings	8	-	-	7	6	48	32	160	16	16	40	8
Pavement Investigation	67 Cores	16	40	5	12	5	40	-	-	-	-	20	4
Sidewalk Vault GPR	TBD	-	-	-	-	-	•	-	-	-	-	-	-
Estimated Total =		24	40	5	19	11	88	32	160	16	16	60	12
\$ 65,285.00		\$2,880.00	\$4,400.00	\$1,500.00	\$665.00	\$8,800.00	\$10,560.00	\$22,400.00	\$1,600.00	\$1,360.00	\$2,000.00	\$7,200.00	\$1,920.00



July 1, 2019 Chicago Testing Laboratory Inc Attn: Jeffrey Rothamer Project: Oak Park Avenue Vaulted Sidewalks Submitted By: Greg Healy 312.489.0258

Greg.Healy@gprsinc.com

GPRS appreciates the opportunity to provide this proposal. I encourage you to visit our website (<u>www.gprsinc.com</u>) and contact any of the numerous references listed. Our insurance certificate and W-9 can also be downloaded <u>here</u>. Please feel free to contact me if you have any questions, or if you need additional information.

SCOPE OF WORK

We understand the scope of work to be to scan for unknown vaults under sections of sidewalks along Oak Park Ave between Ontario St and Pleasant street. Vaults may be from basements attached to existing or removed buildings or from utility vault/access points. Sidewalks are approximately 8 x 12 ft wide depending on section. Both sides of the street are to be scanned. The approximate length of the Street scape area is 3500 linear ft. Passes will be made at two to three-foot passes. The proposed locations should be laid out, marked, and cleared of obstructions prior to our arrival in order to avoid additional charges. Our findings will be marked directly onto the surface using permanent marker, crayon, tape, or other methods depending on the site conditions. We will label known conduits/utilities as such by detecting changes in patterns, depths, etc. However, these items can look identical to rebar or wire mesh so all markings should be avoided. GPR cannot determine the diameters of reinforcing or conduits so avoid all markings by at least 1" or more whenever possible. Please visit www.simspec.org for an overview of our industry-leading best practices that will be applied to this project.

EQUIPMENT

- **1600 MHz GPR Antenna.** The antenna is approximately 6"x9" and rolls over the surface. The antenna needs a reasonably smooth, unobstructed surface for scanning so we would not be able to scan within 3" of obstructions such as walls and metal tracks unless they are removed prior to our work. The data is displayed on a screen during the scanning and marked on the surface in real time. GPR works by sending pulses of energy into a material and recording the strength and the time required for the return of the reflected signal. Reflections are produced when the energy pulses enter into a material with different electrical properties from the material it left. The strength of the reflection is determined by the contrast in signal speed between the two materials. The total depth achieved can be as much as 18" or more with this antenna but can vary widely depending on the conductivity of the materials and other factors such as the spacing of the reinforcing. *No harmful radiation is emitted and the work can be performed at any time with people in close proximity*. For more information, please visit: Link
- **2000 MHz GPR Antenna.** The antenna is only approximately 4"x3.5" and rolls over the surface. The antenna needs a reasonably smooth, unobstructed surface for scanning so we would not be able to scan within 1.75" of obstructions such as walls and metal tracks unless they are removed prior to our work. The data is displayed on a screen during the scanning and marked on the surface in real time. GPR works by sending pulses of energy into a material and recording the strength and the time required for the return of the reflected signal. Reflections are produced when the energy pulses enter into a material with different electrical properties from the material it left. The strength of the reflection is determined by the contrast in signal speed between the two materials. The total depth achieved can be as much as 18" or more with this antenna but can vary widely depending on the conductivity of the materials and other factors such as the spacing of the reinforcing. *No harmful radiation is emitted and the work can be performed at any time with people in close proximity*. For more information, please visit: Link
- **Electromagnetic Pipe Locator.** The EM locator can passively detect the electromagnetic fields from live AC power or radio signals travelling along some conductive utilities. It can also be used in conjunction with a transmitter to connect directly to accessible, metallic pipes, risers, or tracer wires. A current is sent through the pipe or tracer wire at a specific frequency and the resulting EM field can then be detected by the receiver. For more information, please visit: <u>Link</u>



PROJECT COSTS

SERVICE	SCOPE	PR	ICE				
SCANNING/FIELD MARKINGS	Described on Page 1		\$3,200				
MOBILIZATION	Included at no charge		\$0				
TOTAL			*\$3,200				
OPTIONAL SERVICES (INITIAL IF DESIRED)							
WRITTEN REPORT	Basic report of findings with photos and example data.	Initial	\$300				
CAD DRAWING	Findings will be drafted in AutoCAD. The type of output is TBD.	Initial	TBD				

* This price assumes that we will be given access to perform the work during normal weekday business hours (6am-5pm). Some slabs may not be completely penetrable from the top only and would need to be scanned from both top and bottom and should be considered an unforeseen circumstance that would incur additional time onsite and charges. Ladders or manlifts for accessing wall or ceiling locations is the responsibility of the client. Roofing material should be removed prior to our arrival. All of our technicians have OSHA-10 safety training or greater. Sitespecific safety training is not included in this quote. Please notify us if this project requires additional safety training.

TERMS & CONDITIONS

- 1. Customer agrees to meet and perform all requirements described in this document and has fully read and understands all items listed within this document.
- Customer acknowledges it understands that our results are based upon the quality of the data retrieved which is determined by a variety of factors, including, but not limited to, the limitations listed in the "Equipment" section of this document. These limitations are inherent to all locating equipment. The decision to proceed with drilling, excavation or any destructive methods is left entirely up to the customer.
- 3. GPRS is not liable for inaccurate data reporting or for any other reason, and customer agrees to release and indemnify GPRS and its owners and agents from all losses and damages from all alleged negligence and/or contract claims by customer or any third party. These terms and conditions supersede any other previous terms and conditions, or representation, either oral or written.
- 4. If GPRS provides maps or CAD drawings, please note that the map is not survey quality. These are representations of GPRS' utility findings performed on a previous date. The GPRS scan performed was of limited scope and utilities outside this scope are not shown.
- 5. GPRS does not conduct an investigation, analysis, or interpretation of soil composition, soil conditions, or geological or geophysical information, Customer acknowledges it understands that we are merely reporting retrieved data and that we do NOT provide professional geophysical, geological, engineering, or land surveying services. Customer should contact a professional in those fields if such services are needed.
- 6. Payment is due upon receipt of invoice.
- 7. If for some reason the technician arrives on site and the work is cancelled there will be a charge of \$500.00 per requested technician.

ACCEPTED AND AGREED:

Billing Company Name:		
Billing Address:		
Company Phone/Email:	PO#:	Job#:
Print Name:	Signature:	Date: