

OCONTRACT # 2076-03/30/21

CITIZENS BLOCK – ENTRANCE ADDITION, EXTERIOR SHELL 28 –34 PARK PLACE, VERNON, CT

ADDENDUM

#1

March 30, 2021

ITEM #1: In General Information and Forms, DELETE Section 00 41 13.1 - Bid Form and substitute the amended Bid Form attached to this addendum document.

ITEM #2: In General Information and Forms, ADD Section 00 31 32 Geotechnical Data including the report attached to this addendum document.

BID FORM

TOWN OF VERNON CONTRACT # 2076 CITIZENS BLOCK ENTRANCE ADDITION – EXTERIOR SHELL 28 – 34 PARK PLACE, VERNON, CT

TO: Town of Vernon Memorial Building 14 Park Place Vernon, CT 06066

Sirs:

THE UNDERSIGNED HEREBY DECLARES that:

- A. No person or persons other than those named herein are interested in this Proposal or in the Contract proposed to be taken; that it is made without any connection with any other person or persons making any proposal for the same work, and is in all respects fair and without collusion or fraud; that no person acting for or employed by the Town of Vernon (the Town) is now or will hereafter be directly or indirectly interested therein, or in any portion of the profits thereof in any manner which is unethical or contrary to law:
- B. He has read the information contained herein relating to the work;
- C. That in the event a Contract, as contemplated by this Proposal, is awarded to him, he will enter into a written Contract with the Town, and agrees that in case he fails to do so, the Town may determine that the bidder has abandoned the Contract, and thereupon the acceptance of this Proposal and the award shall be null and void, and that the proposal guarantee may be forfeited in whole or in part to the Town as the Town may determine, and he will, by such Contract, agree to furnish all materials herein required, within the time stipulated by the Town, will perform all services and will assume all liabilities and obligations connected therewith, all in accordance with the Contract, Specifications, and Instructions to Bidders, all of which are made a part hereof, and will accept in full payment therefore the following sums, to wit:

BID PROPOSAL

The ur	ndersigned representative of	
hereby	y submits the following bid proposal on the equipment and/or work as specified:	
1)	Total cost to supply all labor, materials and equipment of same on Town of Vernor	site.
		_DOLLARS
\$		

Name, address and insurance information of installer if subcontracted.

2)		HALL BE COMPL ON SUBJECT TO				ACT AWARD. PUBLIC WORKS.
3)	BID BONE	O ATTACHED:	YES	NO		
4)						ber of four or more ed. If none, state so
	1)_					
	2)_					
	3)_					
5)	Acknowled		nda. The unders	igned Bidder ad		eceipt of and use of
	1)	Addendum N	No. 1, dated			
	2)	Addendum N	No. 2, dated			
	3)	Addendum N	No. 3, dated			
	4)	Addendum N	No. 4, dated			
6)		r shall submit uni Repointing exte		llowing work:	\$	per square foot
	(b)	Rebuilding of ex	terior brick wall		\$	per square foot
6)	23 00 – Al form reque using the		26 00 – Contract l " in bid price by a pelow.	Modification Produced in the decirion of the d	ocedures Part ucting from th	Refer to Section 01 1.9 Alternates. This e base bid price
	2)	Alternate No. 2	– Granite Sill/Hea	nder	\$	
	3)	Alternate No. 3	– Site Stair		\$	
	4)	Alternate No. 4	– Grading	;	\$	

)		rs and Supplies. The following work indicated:	g companies shall execute subcontracts for the								
	1)	Site Work:									
	2)	Concrete Work:									
	3)	Masonry Work:									
	4)	Carpentry Work:									
	5)	Roofing Work:									
)	The undersig	ned declares that the signer of (a) INDIVIDUAL doing be (b) PARTNERSHIP doin (c) CORPORATION ent	ousiness as ng business as								
			and having its principal office The names of all partners of a poration will be submitted upon request.	s at							
	p-11-11-11-11-11-11-11-11-11-11-11-11-11		Signature of Authorized Representative								
			olgradare of Addition200 Representative								
			Print Name and Title								
			Print Firm Name								
			Print Street Address								
			Print City, State and Zip Code								
			Contact Name								
			Area Code and Telephone Number								
	holding or see	eking office in the Town of Ve	reby certify that I do not hold any executive or Fown of Vernon; furthermore, I do not anticipate rnon for the duration of this contract. I further ceabove, is an Equal Opportunity Employer.	ərtify							
		Date	Signature								

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00 31 32 Geotechnical Data

Includes Geotechnical Report entitled

Geotechnical Study for Proposed Elevator Foundation at the Rear of the Building at the Corner of Park Place and Elm Street, Vernon, CT, dated November 9, 2020.

WELTI GEOTECHNICAL, P.C.

GEOTECHNICAL ENGINEERING

227 Williams Street · P.O. Box 397 Glastonbury, CT 06033-0397

(860) 633-4623 / FAX (860) 657-2514

November 9, 2020

Mr. Dwight Ryniewicz Director of Public Works Town of Vernon 375 Hartford Turnpike Vernon, CT 06066

Re: Geotechnical Study for Proposed Elevator Foundation at the Rear of the Building at the Corner of Park Place and Elm Street, Vernon, CT

Dear Dwight:

- **1.0** Herewith are the results of the test borings taken at the above referenced site. Two test borings were drilled to auger refusal on probable bedrock at a maximum depth of 17 feet below the existing grades. The boring locations are shown on the attached plan. Ground elevation should be taken at the boring locations related to floor levels at the building. The borings were drilled by Clarence Welti Associates, Inc. and sampling was conducted by this firm solely to obtain indications of subsurface conditions as part of a geotechnical exploration program. No services were performed to evaluate subsurface environmental conditions.
- **2.0** The **Subject Project** pertains to the construction of an elevator foundation and pit at the rear of the subject building. The elevator is assumed to eventually service 2 to 3 floors plus a basement of the furbished structure. The ground at the boring locations appears to be 4 to 7 feet above the basement floor. This observation will presumably be confirmed by a survey. The wall openings indicate the elevator would be at the building addition.
- **3.0** The **Geologic Origin** of the natural inorganic soil is from glacial moraine deposits. These deposits consist generally of compact fine to coarse sand with some gravel and little silt to the top of bedrock. The bedrock from geologic mapping is Glastonbury Gneiss (inter-layered Schist and Gneiss).
- **3.1** The **Soil/ Rock Cross Section** from the borings is generally as follows:

Bituminous Concrete to 3"

FILL; fine to coarse SAND, little to some Silt, trace to some Gravel, trace Asphalt to 8.5 to 11 9 feet below grade, loose

Fine to medium SAND, some Silt, trace Gravel to 11 to 12 feet, medium compact

Moraine; fine to coarse SAND, some Gravel, little Silt to auger refusal on probable bedrock at 13.5 to 17 feet, dense to very dense

Locally (see boring B-1); Weathered Bedrock from 12.5 to 13.5 feet

3.2 The **Water Table** was not evident on completion of the borings. Dependent on the relation of the boring data to elevator pit bottom, possible ground water should be addressed in the pit water-proofing.

4.0 The Criteria for Foundation Type and Loading are as follows:

- 1. The maximum total settlement should not exceed 3/4" and the maximum differential settlement should not exceed ½ the maximum settlement.
- 2. The Foundations and Structures must address the seismic section of the building code
- 3. The centroid if the elevator foundation (pit bottom) should be outside the centroid of the loading applied on the foundation. This is minimize or exclude any tendency of the elevator shaft to rotate away from the building.
- **4.1** Regarding item 2 (above), the seismic site soil profile classification can be "C". The mapped MCE seismic spectral response acceleration values for Vernon, CT are $S_1 = 0.064$ for one second period and $S_8 = 0.177$ for short period.
- **5.0** The **Foundation** for the elevator pit must be on the natural soil at least 2 feet below any fill or on bedrock. It appears that the lowest floor/basement level of the existing building and proposed addition is 8 to 10 feet below the level at which the borings were taken. The pit bottom (elevator foundation) would normally be about 5 feet below the lowest building floor. It is presumed that the foundation for the existing building foundation is on the compact natural soils or bedrock and that the elevator pit would not require any underpinning of the existing building foundation. It is recommended that a test pit be made at the face of the building at the elevator location prior to any construction to define a possible need for foundation underpinning. If the bottom of the pit falls at least 2 feet into the natural soil, there should be a 6" of crushed 3/8" stone beneath the foundation pad on which water-proofing can be placed. If the pit bottom falls above that level the fill below the pad to the required pit bottom (2 feet into natural soil), crushed 3/8" stone could be used for structural fill. For required fill up to the foundation more than 2 feet, there should be a concrete subfooting.

- **5.1** The **Allowable Bearing Pressure 2 feet into natural soil** with the above preparation can be 4,000 psf. If the design is based on the alternate basic load combinations of the IBC section 16.5.3.2, the allowable bearing pressures can be increased by 1/3 for seismic or wind loading, and the maximum pressure on the toe of retaining walls can be 50% higher than the average pressure, cited above.
- **5.2** The **Lateral Soil Loading** (static) on elevator pits should be based on at-rest pressure using the at-rest coefficient as cited in the table below. The backfill for elevator pit should conform to section 6.0 below and should extend back from the wall for a horizontal distance equal to the height of retained backfill.
- **5.2.1** Seismic lateral loading for retaining walls that are part of the building should be with a total lateral force (seismic plus static at-rest pressure) equal to 24H² lb/ft located at ½H above the bottom. The above value is based on the Mononobe-Okabe solution for the case with level backfill, no wall friction and no hydrostatic pressure. This value excludes the inertia of the soil and wall mass. The requirements for the seismic analyses of earth retention structures as part of the building shall be determined from the Connecticut Building Code (IBC) or the ASCE-7.
- **5.3** The **code required frost protection depth** is 3.5 feet below finish grade contiguous to building foundations.

5.4 Summary of the Foundation Design Parameters:

Parameter	Value
Allowable Bearing Pressure	4,000 psf
Soil Unit Weight (Backfill) *	125 pcf
Internal Friction Angle (Backfill) *	34°
At-Rest Pressure Coefficient, K _o	0.45
Active Pressure Coefficient, K _A (level backfill)	0.28
Seismic Site Soil Profile Classification	С
Mapped MCE Spectral Response Acceleration for one second period, S ₁	0.064
Mapped MCE Spectral Response Acceleration for short period, S_s	0.177

^{*} Backfill material conforming to section 6.0 below

6.0 Regarding Backfill for Pit Walls the material should conform to the following or be 3/8"

crushed stone:

Percent Passing	Sieve Size
100	3.5"
50 - 100	3/4"
25 - 75	No.4

The fraction, passing the No.4 sieve should have less than 15%, passing the No. 200 sieve.

The on-site excavated soils will not conform to the above gradation.

Controlled fills must be compacted to at least 95% of modified optimum density (ASTM D-1557).

- **6.1** Notwithstanding the lack of ground water in the test borings, water proofing of the elevator pit is recommended. This is avoid possible future issues with any water in the pit during elevator inspections. The water proofing should be with normal Bituthene materials, the placement of which should be monitored by a manufacturers representative.
- **7.0** The **Excavations** in the existing fills will generally fall in OSHA Class C. This will require sloping excavations, which are unshored and exceed 5 feet in height, to be cut back to slopes less than 34° from the horizontal (1.5:1). The natural soils fall in OSHA Class B and unshored excavations in excess of 5 feet high should be cut back to 1:1, or flatter.
- **8.0** This report has been prepared for specific application to the subject project in accordance with generally accepted soil and foundation engineering practices. No other warranty, express or implied, is made. In the event that any changes in the nature, design and location of structures are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

The analyses and recommendations submitted in this report are based in part upon data obtained from referenced explorations. The extent of variations between explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.

Welti Geotechnical, P.C., should perform a general review of the final design and specifications in order that geotechnical design recommendations may be properly interpreted and implemented as they were intended.

If you have any questions, please call our office.

Very truly yours,

Max Welti, P. E.

Max Welti

President, Welti Geotechnical, P.C.

Clarence Welti

Clarence Welti, PhD, P. E

Vice President, Welti Geotechnical, P.C.

APPENDIX

BORING LOCATION PLAN + TEST BORING LOGS

DR. CLARENCE WELTI, PE, PC

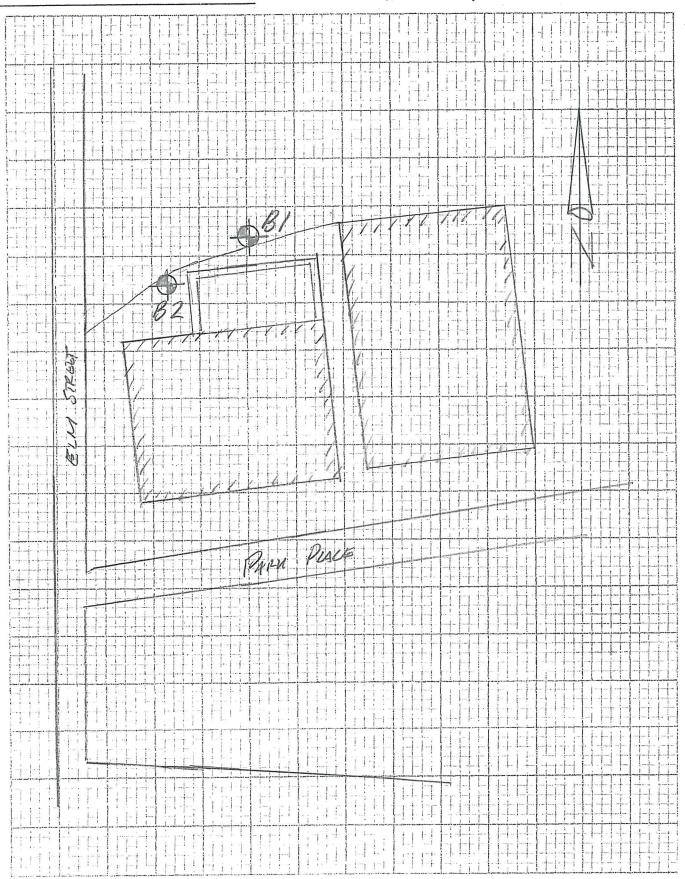
P.O. BOX 397 GLASTONBURY, CONNECTICUT 06033 • (860) 633-4623 CLIENT TOWN OF VERNON

MOJECT ELEVATOR & SPAIRWAY ADDITION

SUBJECT TEST BURING LOCIATIONS

BY MW DATE 1/12/20 SHEET NO.





P.O.	BOX 397	E WELTI A	·	INC.		TONW OF VERNON	PROJECT NAME PROPOSED ELEV LOCATION CORNER OF EL		T & PAF		
		AUGER	CASING	SAMPLER	CORE BA	AR. OFFSET	SURFACE ELEV.	HOLE	NO.	B-1	
TYPE		HSA		SS		LINE & STA.	GROUND WATER OBSE	RVATIONS	START	11/2/2	·····
SIZE I.E		3.75"		1.375"		N. COORDINATE	AT NONE FT. AFTER	0 HOURS	DATE	11/2/2	U
HAMMI				140lbs		E. COORDINATE	AT FT. AFTER HOURS FINISH DATE 1		11/2/2	<u>'</u> 0	
HAMMI	ER FALL			30"					DATE		
DEPTH	NO.	SAM BLOWS/6'		PTH A		STRATU	M DESCRIPTION + REMARKS			E	ELEV.
0	NO.	BLOWS/0	DE	1111		∖ASPHALT	T REIVIT IRRIS		0	.25	
	1	5-5-4-4	1.0'	-3.0'	_::::::	BR./DARK BR.FINE-CRS.SAN FILL	ID, SOME SILT, LITTLE	GRAVEL -	-		
	2	2-5-3-2	3.0	-5.0'	:::::::						
5 –	3	1-2-3-4	5.0'	-7.0'						6.0	
	4	7-10-11-11	1 7.0'	-9.0'		BR.FINE SAND, SOME SILT -	POSSIBLE FILL			0.0	
						BR.FINE SAND, SOME SILT,	TRACE GRAVEL			8.5	
10 –	5	8-13-22-60	10.0	-11.9'		BR.FINE-CRS.SAND, SOME (GRAVEL. LITTLE SILT		1	1.0	
					-				1	2.5	
						WEATHERED ROCK BOTTOM OF BORING @ 13.5			-	3.5	
20 - 25 - 30 -											
35 _							1				
	ND: COL LE TYPE		=AUGER C=	CORE U=UND	DISTURBED	PISTON S=SPLIT SPOON	DRILLER: J. BREWE INSPECTOR:	R			
PROP	ORTIONS	S USED: TR.	ACE=0-10%	LITTLE=10-20	% SOME=2	20-35% AND=35-50%	SHEET 1 OF 1	HOLE NO).	B-1	

P.O.	BOX 397	E WELTI A 7 JRY, CONN		INC.		TONW OF VERNON			T & PAR	
		AUGER	CASING	SAMPLER	CORE B.	AR. OFFSET	SURFACE ELEV.	HOLE	NO.	B-2
TYPE		HSA		SS		LINE & STA.	GROUND WATER OBSE	ERVATIONS	START	11/2/20
SIZE I.E		3.75"		1.375"		N. COORDINATE	AT none FT. AFTER	0 Hours	DATE	11/2/20
HAMMI				140lbs		E. COORDINATE	AT FT. AFTER	HOURS	FINISH DATE	11/2/20
HAMMI	ER FALL			30"					DAIL	
DEPTH	NO.	SAM BLOWS/6'		PTH A		STRATU	M DESCRIPTION + REMARKS			ELEV.
0	1	3-3-10-10		-2.0'		BR.FINE-CRS.SAND, SOME		TRACE		
						ASPHALT - FILL				
	2	5-5-3-3	2.0'	-4.0'						
						BR.FINE-MED.SAND, SOME	CILT TRACE CRAVE			4.5
5 -	3	1-1-1-1	5.0'	-7.0'		BR.FINE-MED.SAND, SOME	SILI, TRACE GRAVEL	- FILL		
	4	2-1-3-3	7.0'	-9.0'						
						BR.FINE-MED.SAND, LITTLE	SILT, TRACE GRAVEL	- FILL		8.0
40										
10 –	5	6-9-14	10.0'	-11.5'					4	1.0
						BR.FINE SAND, SOME SILT				2.0
						BR.FINE-CRS.SAND, SOME	GRAVEL, LITTLE SILT		\1	2.0
15 -										
13	6	22-25-25	15.0'	-16.5'						
										7.0
						BOTTOM OF BORING @ 17.0)' (AUGER REFUSAL)		<u> </u>	7.0
20 -										
_,										
25 -										
30 -										
35 _							DDH LED DDENE	- D		
	ND: COL		=AUGER C=	CORE U=UND	ISTURBED	PISTON S=SPLIT SPOON	DRILLER: J. BREWE INSPECTOR:	:K		
PROP	ORTIONS	S USED: TR	ACE=0-10%	LITTLE=10-20	% SOME=2	20-35% AND=35-50%	SHEET 1 OF 1	HOLE NO).	B-2