

April 12, 2018

Millennium Tower Association
c/o Vision Winter, Esq.
O'Melveny & Myers LLP
2765 Sand Hill Rd, Menlo Park, CA 94025

To: Vision Winter, Esq.
RE: 301 Mission St.
Foundation Retrofit – Micropile Installation Estimate
Non-Tilt Correction Alternate Scope

*****CONFIDENTIAL & PROPRIETARY*****

Dear Mr. Winter,

Nicholson-Hayward Baker JV (NHBJV) is pleased to present this Estimate to install micropiles for the Foundation Retrofit of the Tower at 301 Mission St., San Francisco, CA (the Project). This document reflects our updated estimate of the cost to furnish all labor, equipment, material, and supervision to perform the scope of work as described herein. We anticipate providing a new estimate as more information is provided to us. This Estimate is based on the following documents:

- LEVEL B1 WEST PLAN ALTERNATIVE SCHEME NO TILT CORRECTION OPTION prepared by Leslie E. Robertson Associates, R.L.L.P. and dated April 5th 2018
- B1 Office Layout Drawing prepared by Stantec and dated February 1, 2018

NHBJV will perform the scope of work outlined in this Estimate based upon:

1. All Work being performed on time and material basis with the **Contract Sum = Cost of the Work x 1.3984**. This is based on the average audited over heads of the NHBJV partners of 21.6% and a 15% profit. ($1.216 \times 1.15 = 1.3984$) The NHBJV will endeavour, but not guarantee, to negotiate a mutually acceptable Guaranteed Maximum Price (GMP) once we have performed enough work In the B1 Level basement to do so with confidence.
2. If we arrive at a GMP, then any savings between the GMP and Contract Sum will be split 50/50 between NHBJV and our client.
3. All work being covered under an acceptable CCIP.
4. A project specific insurance policy being obtained by others that will include insurance coverage for subsidence / earth movement on this and adjacent properties.
5. Signing mutually agreeable contract terms.
6. NHBJV and Swinerton to negotiate a mutually agreeable prime contract with the MTA
7. NHBJV and Swinerton to negotiate a mutually agreeable subcontract with Swinerton as Prime

Sincerely,
Nicholson-Hayward Baker JV.

John Wise, PE
Senior Vice President

Kyle Camper, PE
Senior Vice President

cc: Michael P. Balducci, Esq.
Thomas Beggs

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Project Overview

The building located at 301 Mission St., known as the Millennium Tower, is a fifty-eight-story, reinforced concrete residential tower (the “Tower”) with an adjacent twelve-story podium structure. The Tower foundation consist of a 10-ft. thick, reinforced concrete mat supported by 14-inch precast concrete piles. Based upon information provided to NHBJV, the precast piles were driven into the Colma Sand Deposit approximately 50 to 90 ft. below the surrounding grade. Below the Colma deposit lies a very thick layer of Old Bay Clay (stiff to very stiff) deposits which sit on top of the Franciscan bedrock formation.

We understand that the original design for the Tower projected building settlement in the range of 4 to 6 in. Since the Tower construction, the maximum settlement has been in the range of approximately 17+ inches. The maximum differential settlement since mid 2009 is approximately 2+ inches between the NW (lowest) and SE (highest) corners of the Tower. The micropile scope of work contemplated by the Engineers and estimated in this document is intended to stop the settlement.

NHBJV’s undertaking includes assisting the Millennium Tower Association (MTA), the Owner (Owner), in close collaboration with their engineering team, LERA and ENGE0 (Engineers), in their goal to develop a cost effective and efficient means to arrest current building settlement. From our discussions, scope development, and review of documents provided, we provided input on the Foundation Retrofit design developed by The Engineers which they believe will achieve this goal.

Subsoil Conditions

Based on the geotechnical information provided we understand the ground conditions to be as follows:

From the existing grade at the sidewalk, the depth of fill is approximately 23 feet. The fill is underlain by relatively compressible Marine Deposits extending to depths ranging from 41 to 45 feet below the sidewalk grade. The Marine Deposits consist primarily of very soft to medium stiff clay, clay with sand and sandy clay interbedded with very loose to medium dense sand and clayey sand. Below the Marine Deposits is a dense to very dense sand with varying amounts of clay and silt called Colma Sand, where the existing piles are founded. The sand extends to depths ranging from approximately 80 to 100 feet below the site grade. The sandy soil is underlain by stiff to hard clay, sandy clay, and clay with sand, locally known as Upper Old Bay Clay, that ranges from approximately 100 to 112 feet thick. The Upper Old Bay Clay extends to a depth of about 200 feet below the site grade. The Upper Old Bay Clay is underlain by very stiff to hard clay and sandy clay and very dense sand and silty sand called Lower Old Bay Clay. Below the Lower Old Bay Clay is the Franciscan formation of bedrock which is sandstone in a clayey matrix for the top 20 ft. and improves with depth. Typically, the bedrock is low hardness, plastic to friable, and deeply weathered to decomposed. Ultimately, the Franciscan Formation is low quality bedrock.

Scope of Work

The Foundation Retrofit design was prepared by the MTA's Engineers. The general scope of work consists of installing 232 micropiles from within the basement of the Tower in the locations as described by the LEVEL B1 WEST PLAN ALTERNATIVE SCHEME NO TILT CORRECTION OPTION drawings.

The work as currently contemplated in the alternative no tilt correction scheme takes place in one continuous, uninterrupted visit to the site. This estimate is based on all 232 rock micropiles being installed using 3 custom designed low headroom drill rigs. All of these high capacity micropiles are founded in the Franciscan bedrock and structurally connected to the mat.

Detailed Description

We expect the micropile installation work will utilize three drill rigs and drill rig crews. Two drill rigs will focus on the rock micropiles at the west side of the building and one drill rig will focus on installation of the rock micropiles at the east side of the building. When the west micropiles are completed, one of the drills rigs will be brought to the east side to finish that work. One grout batch plant on Beale Street will service all three drill operations.

1. Test Rock Piles

- a. Install four (4) each test piles, one in each quadrant of the B1 Level Basement, before production work begins.
- b. Test piles will be approximately 315 ft. long, measured from the top of the existing mat, and installed 80 ft into the Franciscan formation.
- c. We have assumed that all of these test piles will be installed in minimum 12 ft of headroom.
- d. These piles will be considered production piles.
- e. Fiber optic strain instrumentation will be included in these piles.
- f. NHBJV will leave top of pile approximately 4 inches below the top of mat (+/- 2" for tolerances).
- g. Each pile will be load tested in compression per ASTM 1143D up to 2,000 kips.
- h. NHBJV will clean out the grout within the pile to a depth of 12 inches for waterproofing by others.

2. Rock Micropiles

- a. NHBJV will install 232 total rock micropiles (i.e. 228 production piles and 4 test piles) within the tower footprint
- b. 116 each piles will be installed at the west side of the building and another 116 each piles will be installed at the east side of the building.

- c. These rock micropiles will be approximately 315 ft. long, measured from the top of the existing mat, and installed 80 ft into the Franciscan formation.
- d. All micropiles will be installed from a height restriction of 12 ft or greater, except for 1 micropile on the west and 2 micropiles on the east, which will be installed in a minimum of 10 ft headroom condition
- e. For all rock micropiles, NHBJV will install a temporary load frame so that preload can be applied to each micropile.
 - i. At each micropile the load frame will utilize four (4) reaction bars anchored into the existing mat.
 - ii. LERA has specified the maximum core hole diameter for the reaction anchors to be 2 ½ inches diameter.
 - iii. The maximum preload is 1,000 kips.
- f. The maximum hold period for the micropile preload is 7 calendar days from when the initial preload is applied.
- g. After this initial hold period, the preload will be reduced to the design lock off load and the micropile will be structurally connected to the mat slab.
- h. A total of 24 frames and loading equipment will be provided to maintain schedule.
 - i. 23 rock micropiles will be installed with Fiber Optic Strain instrumentation.
- j. The rock micropiles will be installed through a 16-inch core hole in the existing mat slab.
- k. At every micropile location, prior to coring 16-inch holes, 4 each, 2-inch diameter cores will be advanced through the mat slab at the proposed edge of micropile location to confirm no driven pile exists within the micropile footprint
- l. NHBJV will leave top of pile approximately 4 inches below the top of mat (+/- 2" for tolerances).
- m. NHBJV will clean out the grout within the pile to a depth of 12 inches for waterproofing by others.

Specific Micropile Details and Installation Methodology

1. Rock Pile Details

- a. Duplex 13.625 OD x 0.625" wall casing to EL -84 using polymer flush. Use 9.625" OD x 0.75" wall fitted with a 12.25" diameter bit as the inner rod.
- b. Continue to drill 9.625" OD x 0.75" wall inner casing fitted with 12.25" diameter bit 80 feet into Franciscan rock (approximate El. -314) using external polymer flush.
- c. Insert #28 Gr. 75 bar full length of pile.
- d. Install Fiber optic instrumentation attached to the bar for all 4 rock test piles as well as 19 rock production pile.
- e. Tremie grout pile.
- f. Connect pressure cap to the 13.625" OD casing and pressure grout and inject grout until:
 - i. Grout reaches 100 psi on gauge at cap at surface.
 - ii. Grout comes to surface around the casing.
 - iii. We reach a grout volume injected of 50% the theoretical volume of the rock bond zone.

- g. Leave top of pile approximately 4 inches below the top of mat (+/- 2" for tolerances).

Project Sequence and Schedule

The general sequence is shown in the NBHJV Schedule (see Attachment #1). This schedule is based upon our current production assumptions of the following number of shifts for each task listed below.

- 16" cores = 3 shifts/ea.
- 2.25" cores = 1 shift/ea.
- 2" probe cores = 0.67 shifts/ea.
- Rock micropiles installed in 12 ft of headroom = 5 shifts/ea.
- Rock micropiles installed in 10 ft of headroom = 7 shifts/ea.

The total schedule for our work considers that micropile installation is the critical path and that we will utilize three drill rigs to complete the work. During the drilling operations our schedule is based on working two 12-hour shifts per day, 5 days per week. Saturday is reserved for equipment maintenance during the daytime shift.

Rock Hardness Considerations

The pricing in the estimate is based on NHB JV making one attempt at drilling through the bedrock in each micropile. We understand there is a possibility that Greywacke Sandstone may exist within the bedrock formation. Should we encounter this very strong sandstone during rock socket drilling it is possible that our drill bit may wear out before reaching the rock socket target length of 80 ft. This estimate assumes that if a rock socket is left short due to the presence of high strength rock, that the increased bond strength over a shorter length of bond zone will achieve the target geotechnical capacity. We have not included any costs for trying a second drilling attempt to lengthen the rock socket or to install a replacement pile.

Logistics Plan

NHB JV anticipates utilizing three drill rigs in the basement. With each of these drill crews will be crews coring holes in the slab for the micropiles, coring holes in the slab for the reaction bars, placing reaction bars, placing loading frames, preloading the micropiles, and creating the connection between the micropile and the existing slab. This multitude of activities will require many construction personnel performing a variety of tasks to complete the work.

Material deliveries will take place on an as-needed basis and trucks will unload near the existing loading dock. NHBJV will utilize small forklifts to unload materials on pallets from the delivery truck and bring them to our laydown area in the B1 Level Garage.

We will need to stockpile micropile material (casing, bar, etc.) in the B1 Level Garage laydown areas shown in the NHBJV Layout Area drawing (attached). These laydown areas will need to be capable of supporting up to 150 lbs./sf. and 250 lbs /sf. To accommodate this loading reshoring of the B1 Level Garage slab may be required and is not included in this estimate.

The small forklifts mentioned above will also bring materials from the laydown areas to the crews working within the Tower footprint. The loaded forklifts will weigh 8,500 lbs. (i.e. forklift plus loaded pallet). NHBJV assumes that the parking garage structure can adequately support the equipment loading required to supply materials to the work crews without disturbing continuous working operations.

NHBJV will be provided office space in the B1 Level Garage area as shown on drawing “Proposed Contractor Offices 1_16 A2-0.B1.0” prepared by Stantec and dated Feb 1, 2018.

The batch plant operations will be located on the sidewalk and traffic lane on the west side of Beale Street, east of the podium building, and south of Mission Street. A large series of hoses and pipes will run from the batch plant to the work area in the Tower basement. The batch plant will pump clean drill fluid to each drill and will clean the used drill fluid which is pumped up from the basement. The material which is removed from the drilling fluid will be placed in dumpsters and hauled off continuously. Pumps from the batch plant will also provide cement grout for grouting of micropiles within the basement.

Shoring Wall Retrofit Scope

NHBJV will furnish the supervision, labor, equipment, and materials for the beam removal operation as described in the 301 Mission Street Shoring Wall Retrofit drawings S3.02, S3.03, S3.04 prepared by LERA and Dated March 6, 2018. The intention of this work is to remove portions of 35 of the existing soil mix wall beams which sit below the eastern most portion of the tower mat slab.

The JV will first core drill 3-inch pilot holes through the 30-inch-thick concrete garage wall from the western most portion of the B-3 basement level at approximately EL 12.2. These pilot holes will be used to confirm the location of each soil mix wall beam, which sit behind the garage wall. After the beams have been located, NHBJV will core through the concrete garage wall and through the soil mix wall beams. The intention of our work is to sever the soil mix beams completely and remove that portion of beam from the core hole.

Once the beam core is removed from the core hole, the JV will backfill the section of the core hole thru the soil mix wall with a section of rigid compressible foam. The remaining section of the core hole thru the existing basement wall will be roughened and a bonding agent applied to the core hole wall surface. A form will be mounted to the existing inside face of the basement wall and non-shrink grout (min $f_c = 5000$ psi) will be placed to fill the core hole.

We expect to perform this work using multiple coring crews working ten (10) to twelve (12) hours per shift, one shift per day (first shift), and five days per week. NHBJV plans to complete the geotechnical exploration scope of work within approximately 50 days from completion of mobilization to the site.

Work by Others

The following facilities and services are to be provided to NHBJV by others free of all costs to NHBJV:

1. **Site Access:**
 - a. Continuous, unrestricted, and uninterrupted access to each micropile location during the period of NHBJV's operations suitable for our equipment moving under its own power.
2. **Batch Plant Areas**
 - a. Use of Beale Street Sidewalk.
 - b. Use of 1- traffic lane in Beale Street.
3. **Material Storage Area**
 - a. Exclusive use of the B1 Level Garage for material, supplies and tool storage.
4. **B1 Basement Office Space.**
 - a. Built out office space by others.
 - b. Furniture. by NHBJV.
5. **Shoring of the B1 Level for Material Storage**
 - a. Shoring required in the B1 basement slab to facilitate material storage as described in the attached figure.
6. **Phone and Internet Service**
 - a. Wiring to B1 basement offices by others.
 - b. Monthly phone and internet service charges by NHBJV.
7. **Restrooms**
 - a. On-site sanitary facilities for the use of NHBJV employees.
 - b. Two restrooms for office staff.
 - c. Portable sanitary facilities for field personnel.
8. **Electric Power**
 - a. 480V, 3-Phase, 1,350 amp service in the B1 Level Basement
 - b. 480V, 3-Phase, 1,700 amp service at the Batch Plant on Beale St.
9. **Lighting**
 - a. Reasonable site lighting throughout the B1 Level Basement and Garage Storage area.

- b. Lights on Beale Street – Need permanent lighting at the batch plant. Need to coordinate to avoid light pollution to residents and traffic
10. **Building Movement Monitoring System:**
- a. A building movement monitoring system will be provided by others.
11. **Noise and Vibration Monitoring System:**
- a. A noise and vibration monitoring system will be provided by others.
12. **Dewatering:**
- a. Any dewatering, if required, will be provided by others.
13. **Waterproofing:**
- a. Waterproofing and grouting to final floor elevation of all pile holes and probe holes will be provided by others.
14. **Demolition and Site Restoration:**
- a. All demolition and site restoration will be designed, managed and completed by others. This includes any pavement and sidewalk repairs and / or replacement.
15. **Sequence:**
- a. Work is to be made available in a sequence that will enable NHB JV to work efficiently and systematically without restriction.
16. **Progression of the Work:**
- a. This Estimate is based upon carrying out the work in an unobstructed manner, 24 hours per day, Monday through Friday, in a single uninterrupted visit to the site (i.e. 7:00 AM Monday through 7:00 AM Saturday).
 - b. NHB JV reserves the right to perform equipment maintenance and pile installation work on weekends at NHB JV's own discretion without incurring charges for inspection, site overhead or other consequential charges.
 - c. In the event that NHB JV's work is interrupted for any reason beyond our control NHB JV shall be compensated at T&M Rates.
17. **Site Work:**
- a. Any excavation, grading or sealing work required on the site to establish a working platform or to restore the site to the original or finished grade.
 - b. All such work is to be furnished by others in a timely manner, so as not to impede the progress of the work or cause damage to the finished work.
18. **Support of Adjacent Ground Structure:**
- a. Support of adjacent structures.
 - b. The Owner is obligated to ensure that such structures do not settle, and they agree to hold NHB JV harmless from any damage or claim related to settlement of such structures (except for damage caused by NHB JV's sole negligence or wilful misconduct).
19. **Traffic, Pedestrian, and Noise Control:**
- a. All pedestrian and vehicular traffic control including signs, barricades and scaffolds/ walkways, etc. if and when required.
 - b. Noise control barriers or other devices/structures, if required.
20. **Utilities:**
- a. Location of utilities.
 - b. The Owner is obligated to ensure that all utilities are properly located including the proper notification of any utility locating service applicable to the work.

- c. Note: It is possible that damage may occur as a result of heave, settlement or intrusion caused by grout material due to the unforeseeable condition of the ground or utility. For this reason, NHBJV shall be held harmless for damages thus caused.
21. **Layout:**
 - a. Provide pins in the top of the mat at every probe hole, micropile and reaction bar location.
 - b. All GPR and other surveys to determine mat rebar location to be completed before NHBJV's mobilization.
 22. **Pre and Post Construction Survey**
 - a. Any pre and post-construction survey required.
 23. **Permits and Easements:**
 - a. All site permits, and easements required to legally perform the work.
 24. **Water Supply:**
 - a. Adequate supply of clean fresh potable water supplied to NHBJV's operations at the rate of 100 gpm at 100 psi including hook-up and consumption costs. We expect to use 4,000 – 5,000 gallons of water per working day.
 - b. Use of Beale Street fire hydrant including hook-up and consumption costs.
 25. **Security:**
 - a. Site security during nights and weekends.
 26. **Work Hours**
 - a. B1 Basement, B1 Garage and Beale St. work hours M-F, 24/5
 - b. Equipment maintenance work on the weekends.

Specific Assumptions and Qualifications

1. **Labor Affiliations:** This Estimate is made with the understanding that NHBJV will employ union labor.
2. **Vibration Liability:** NHBJV shall be held harmless from liability for disturbance to existing structures and their inhabitants on or near the site due to vibration. NHBJV requires that the Owner indemnify and hold harmless NHBJV against any and all claims for such disturbances and also take precautions as necessary to avoid any such claims. This will include vibration monitoring, etc.
3. **Hazardous Material:** In the event that NHBJV encounters any hazardous material on the site, which has not been rendered harmless, NHBJV shall immediately stop work in the area affected and report the condition in writing to the Owner and Engineer. To the fullest extent permitted by law, the Owner shall indemnify and hold harmless NHBJV, its agents, consultants, and employees from and against all claims, damages, losses and expenses, including but not limited to attorney fees arising out of or resulting from performance of the work in the affected area.
4. **Liquidated Damages:** The NHBJV shall not be liable for any liquidated damage, delay damage or other time related penalties arising from the work.
5. **Bonds:** The cost of a bond premium is not included in the contract price. If desired by and paid by the Owner, NHBJV will furnish a Payment and Performance Bond at costs.

6. **Confidentiality:** All specifications, drawings, price and technical data submitted by NHBJV are to be treated as confidential and shall not be used for any purpose other than the evaluation of this estimate, nor shall such information be disclosed to any third party for any purposes without the express written consent of NHBJV. Such information shall remain NHBJV's property and be returned to NHBJV upon demand. Additionally, NHBJV expects that any third-party involvement with NHBJV's work on the Project (e.g. inspectors, MTA, Engineers, etc.) would be performed under a mutual obligation of confidentiality.
7. **Exclusions:** Any items of work not specifically included in this Estimate shall not be the responsibility of NHBJV.

General Terms and Conditions

1. **Payment Terms:** Progress payments will be submitted twice per month (15th and 30th) and shall be payable within 30 calendar days of the invoice date.
 - a. 5% retention of the first 50% of work will be held with full retention paid upon completion of demobilization.
 - b. An interest charge of 1-1/2% percent per month will be added to invoice amounts not paid within 30 calendar days from date of invoice. All costs of collection, including reasonable attorneys' fees and court costs, will be added to unpaid invoice amount.
2. **Design Responsibility:** All design responsibility including professional engineer stamps will be the responsibility of LERA, ENGE0, or other consultants for the Owner. This includes providing engineer stamps on any of the NHBJV submittals as required.
3. **Changed Conditions:** Notwithstanding all clauses of this Estimate, if NHBJV, during its work, encounters 1) subsurface conditions or latent physical conditions which differ from those indicated in this Agreement and related documents/information provided to NHBJV, or 2) unknown physical conditions of an unusual nature, differing from those ordinarily encountered, then NHBJV shall be entitled to an equitable price and schedule adjustment to compensate it for such changed condition.
4. **Insurance:**
 - a. All work at the site and at our San Francisco area site specific laydown yard is to be covered under an acceptable CCIP including insurance coverage for subsidence / earth movement including that of adjacent structures.
 - b. NHBJV will carry the following insurance, for work not performed at the site or at our San Francisco area site specific laydown yard, with limits as shown.

Comprehensive General Liability: \$1,000,000.00
 (Combined Single Limit, Bodily Injury and Property Damage)
 Automobile Liability: \$1,000,000.00
 (Combined Single Limit, Bodily Injury and Property Damage)
 Workman's Compensation: Statutory

NHBJV will be liable for the amount of the above insurance coverage only.

5. **Force Majeure:** NHBJV shall be held harmless from any liability for default or delay in the completion of the work when caused by strike, riot, war, or Act of God or other similar circumstances beyond NHBJV control.
6. **Limitation of Liability:** NHBJV will perform its work in cooperation with the Geotechnical Engineer / Structural Engineer / Owner. However, NHBJV shall be held harmless from liability on any further damage to the structure, landscaping, utilities, French drains, septic systems, wells, etc. and/or any consequential damages that may result from the normal performance of the work. All utilities and other services left in place shall be located, exposed, and shown to our on-site representative prior to commencement of work.
7. **Defects:** No liability can be accepted by NHBJV, nor shall NHBJV accept as in any way responsibility for defects of any kind whatsoever arising from a cause which is outside NHBJV's immediate control or knowledge, or for any fault in the junction between NHBJV's work and subsequent work carried out by others.
8. **Warranty:** NHBJV disclaims any and all warranties regarding the Project work, whether express or implied.
9. **Assumption of Risk, Waiver of Damages, and Hold Harmless:** The Owner understands the nature and risk of NHBJV's operations, and the possibility of damage to the existing Tower and structures, as well as adjacent structures, through no fault or negligence of NHBJV. As a material part of the consideration to NHBJV performing the Project, Owner shall agree that NHBJV will not be liable to Owner for, and Owner expressly assumes the risk of and waives any and all claims and damages it may have against NHBJV with respect to any and all damage to property (including existing and adjacent structures), additional or exacerbated settlement, or injury to persons in, upon or about the Tower or any part thereof (except to the extent resulting from the sole negligence or intentional misconduct of NHBJV). Further, to induce NHBJV into performing said work, Owner shall agree to defend, indemnify, insure, and hold harmless NHBJV, its agents, consultants and employees from and against all claims for bodily injury, Tower damage (including additional or exacerbated settlement), property damage, adjacent property damage, or claims of any other type arising from or in connection with NHBJV's performance of the Project, regardless of whether such claims are due in part to the negligence of NHBJV. Additionally, Owner shall agree that NHBJV shall not be held responsible (and shall be held harmless by Owner) for any pre-existing or predecessor damage, work, and/or activities (including, but not limited to, work of other contractors) or for any damages resulting therefrom to adjacent properties or the Project property which occurred prior to the commencement of NHBJV's work at the Project.

Micropile Pricing

This estimate is based upon all work being performed on time and material basis with:

- **Contract Sum = Cost of the Work x 1.3984.**

The NHB JV will endeavour, but not guarantee, to negotiate a mutually acceptable Guaranteed Maximum Price (GMP) once we have performed enough work in the B1 Level basement to do so with confidence.

The costs below reflect our updated estimate of the cost to furnish all labor, equipment, material, and supervision to perform the scope of work as described herein.

Description	Cost Basis	Markup
Labor	\$ 16,573,341	\$ 6,602,819
Burden	\$ 11,203,757	\$ 4,463,577
Permanent Material	\$ 19,358,337	\$ 7,712,362
Construction Material	\$ 9,674,185	\$ 3,854,195
Equipment Operation Expense	\$ 934,936	\$ 372,479
Internal Equipment	\$ 650,005	\$ 258,962
External Equipment	\$ 4,195,722	\$ 1,671,576
Site Overhead	\$ 249,961	\$ 99,584
Total	\$ 62,840,244	\$ 25,035,553

Total Estimated Cost Price Without Contingencies \$ 87,875,797

Contingency Pricing

Description	Estimated Quantity	Unit	Unit Cost	Total Cost
Hit Piles at Bottom of Mat	23	EA	\$ 9,000	\$ 207,000
Hit Existing Piles Below Bottom of Mat	23	EA	\$ 100,000	\$ 2,300,000
Slower Production	1	LS	\$ 11,500,000	\$ 11,500,000
Steel Escalation One Time Tarriff Charge (25% cost of steel)	1	LS	\$ 5,840,000	\$ 5,840,000
Steel Escalation (0.5% per month)*	1	LS	\$ 1,100,000	\$ 1,100,000

* assumes 0.5% per month for 12 months until buyout is made

Total Estimated Price with Contingencies

\$ 108,822,797

Notes related to above Pricing Schedule:

- Sales tax on permanent materials is included in the estimated costs.
- The cost of a performance and payment bond **is not included** in the above pricing. A bond can be provided at actual costs.
- The estimated costs are based on the schedule in Attachment #1. Any change to this duration could result in changes to the estimated costs.
- Escalation
 - Steel – We have **not included any escalation** factor in our estimated costs above for the following steel components - micropile casing, reinforcement bar, and roller bits. All of these steel components have been included in our estimated costs above at market prices on 3/1/2018. Due to the market volatility we cannot forecast with reasonable accuracy what the escalation factor will be for 2019 and beyond. We have included contingency costs for steel escalation in the table above using a one-time Tariff cost of 25% and a monthly increase of 0.5% for 12 months (i.e. May 2018 – May 2019)
 - Labor – We have included escalation in our estimated costs above.
 - Equipment – We have included escalation in our estimated costs above.
 - Consumables – We have included escalation in our estimated costs above.
 - Fuel – Current diesel fuel prices are at or near \$3.00/gal. We have included \$3.50/gal in our estimated costs above.