

Resolution 17-047

RESOLUTION TO AUTHORIZE THE EXECUTION OF CHANGE ORDER 4 TO CONTRACT NUMBER 38, MONROE STREET PUMPING STATION AND FORCE MAIN AND MORRIS AVENUE GRAVITY SEWER

WHEREAS, the Rockaway Valley Regional Sewerage Authority (hereinafter the “Authority”) entered into Contract 38 for the construction of the Monroe Street Pumping Station and Force Main and Morris Avenue Gravity Sewer with Tomar Construction Services, Inc., 6 Spruce Meadows Drive, Monroe, New Jersey (hereinafter the “Contractor”); and

WHEREAS, certain additions to the contract tasks are required to be made, namely, modifications and changes required per field conditions, as well as, to ensure proper operation and maintenance of the final, installed system; and

WHEREAS, the Contract includes the installation of a pumping station, which pumping station wet well was relocated to the north side of the street (on the north side of the existing gravity sewer), per Change Order #3. Consequently, other modifications and changes were required per field conditions, as well as, to ensure proper operation and maintenance of the final, installed system, as more specifically set forth in the attached correspondence dated March 2, 2017, from Mark A. Bean, P.E., CGP LEED AP FIGP, Principal Engineer, (Kleinfelder) to the Authority’s Manager of Engineering, Carrie D. Feuer, P.E.; and

WHEREAS, the changes referred to in the above referenced correspondence are formalized in the Contract Change Order No. 4, dated March 2, 2017, and inclusive of this Change Order, the cost of all Change Orders is a net credit of (\$10,727.72), which represents -0.25% of the original Contract cost, as follows:

CO #	Description	Cost
1	Additional Roadway and traffic signage, Excavation & Fill Quantity Adjustments, Bypass FM Construction Adjustments, Replacement of Resident Water Services, Pump Discharge Pressure Gauge Seals and Elimination of Access Manhole #1	\$193,334.00
2	Morris Ave. Steep Slope Geotechnical Design	\$3,850.00
3	Harrison Street Grinder Pump Utility Relocation and Partial Reclamation of Bid Item 5	(\$261,878.40)
4	Modifications to the Harrison Street Grinder Pump Station	\$53,966.68
	Total Change Order Cost	(\$10,727.72)

WHEREAS, the Authority has reviewed the Contract Change Order attached hereto and made a part hereof, and is satisfied that it meets the requirements of N.J.A.C. 5:30-11.3, and

WHEREAS, funds are available therefore from line item EIT-038.

NOW, THEREFORE, BE IT RESOLVED by the Rockaway Valley Regional Sewerage Authority as follows:

1. Subject to receipt of New Jersey Department of Environmental Protection approval, the Authority hereby approves Change Order No. 4 in the amount of \$53,966.68 and the extension of the contract completion date by forty (40) days' time for the completion of the additional work set forth in Change Order No. 4.
2. Upon receipt of New Jersey Department of Environmental Protection approval, the Executive Director is hereby authorized and directed to execute a Contract Change Order substantially in the form as that attached hereto, in the foregoing amount.
3. This Resolution shall take effect as provided by law.

CERTIFICATION

I hereby certify that this Resolution was adopted at a meeting of the Rockaway Valley Regional Sewerage Authority held on March 9, 2017

On motion of Thomas Andes

Seconded by John Cegelka

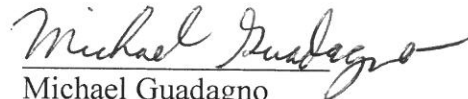
And a Roll Call Vote as Follows:

Yeas: (8) Andes, Cegelka, Corbett, Lowell, Recchia, Rossi, Schorno, Laverty

Nays: (0)) None

Abstain: (1) Vincitore

Absent: (1) Guadagno


Michael Guadagno
Board Secretary



March 2, 2017

Via Email & Copy Via USPS

Ms. Carrie D. Feuer, P.E.
Manager of Engineering
Rockaway Valley Regional Sewerage Authority
RD #1, 99 Greenbank Road
Boonton, New Jersey 07005-9602

**RE: MONROE STREET PUMPING STATION & FORCE MAIN AND
MORRIS AVENUE GRAVITY SEWER
RVRSA CONTRACT NO. 38; NJEIT LOAN PROJECT S340821-06
CHANGE ORDER RECOMMENDATION – CO #4:
HARRISON STREET GRINDER PUMP STATION MODIFICATIONS**

Dear Ms. Feuer:

Pursuant to our inspections and consequent negotiations with the Contractor, Tomar Construction Services, Inc. (Tomar), Kleinfelder is recommending that the Authority approve Change Order #4 to effect multiple modifications to the Harrison Street Grinder Pump Station that will enhance both the station's operability as well as its long-term maintainability. This Change Order #4 would increase Contract cost by the amount of **\$53,966.68** as well as increase Contract Time by **40 days**. Background and other pertinent information related to this item of Additional Work, to share with your Infrastructure Committee and your larger Board of Directors, is presented below.

Background

A new grinder pump station is scheduled to be installed at the end of Harrison Street. This small pump station will collect the flow from a small number of homes on the downslope end of Harrison Street (approaching the steep slope/cliff to the river) and pump the flow uphill to an existing gravity sewer that will convey this flow to the new Monroe Street Pumping Station. Re-direction of this flow is necessary so that the section of the existing Jersey City Trunk Line between Monroe Street and the new tie-in/terminus of the new force main from the new Monroe Street Pumping Station at Lincoln Street can be abandoned (thus enabling the tie-in of the new force main).

Contract Requirements

The Contract Documents illustrate installation of the pumping station within the existing roadway, on the south side of the street (south of the existing gravity sewer) proximate to the end of the driveway for the last house on the street (47 Harrison Street). In accordance with previously-approved Change Order #3, the actual pumping station wetwell was relocated to the north side of the street (on the north side of the existing gravity sewer), as existing water utilities were relocated



to allow for the change in wetwell location. As a beneficial consequence of the utility relocation, the electrical and control gear for the pumping station was able to be moved further up the hill of Harrison Street to a safer location that was farther away from the steep slope at the end of Harrison Street as well as farther out of the way of potential damage consequent to the manner in which snow is plowed to the end of Harrison Street.

The design put forth on the Contract Documents calls for the installation of a residential-style, prefabricated, self-contained pressure sewer pumping system in the street with electrical and control gear located within the right-of-way on the north side of the street. Power is shown to be tapped from an existing JCP&L pole on the south side of the street and run underground, via conduit, to the new gear on the north side of the street.

Modifications Contemplated

From a mechanical perspective, a more “traditional” pumping system is proposed. Originally, the Contractor submitted an “or equal” pumping system by Flygt that actually proved to be preferable to the specified system by Environment-One. The submitted system consisted of a duplex submersible, progressive-cavity grinding pumping system within a much larger, self-contained plastic wetwell. This system afforded a more traditional pump retrieval system, allowing for removal of the pumps from above using a guide rail system. The specified system required entry into a very cramped space and then physical disassembly of the integrated wetwell/drywell in order to manually remove a pump. Further, the manner in which the specified system was illustrated to be installed actually precluded proper access, a detail identified during design review that, unfortunately, was not addressed in the final documents. Upon closer review of the submitted system, it became apparent that the plastic wetwell could not be properly accommodated in the street within either the half-manhole structure illustrated on the Drawings or within a complete standard precast concrete manhole. Accordingly, the wetwell was eliminated in lieu of installing the pumping system directly within a plastic-lined precast concrete manhole that would serve as the wetwell. Full access to the system was to be provided by the installation of a large 40”-diameter, lightweight, watertight polymer manhole cover.

The bulk of the changes contemplated actually arose from the electrical and control side. The power feed to the system was simplified and performed at no cost to RVRSA, as JCP&L installed a new dedicated pole adjacent to the new system. Offsetting this savings, however, enhanced pump controls, including a much-revised pump control panel with proper back-up floats, and a more robust emergency power system, including a true manual transfer switch, were all identified by Kleinfelder and RVRSA as appropriate and necessary modifications.

There were many other modifications and changes required per field conditions as well as to ensure proper operation and maintenance of the final, installed system. The following list delineates many of the changes (including some already described):

- Provision of a complete manhole structure vs. a partial manhole structure indicated on the Drawings (which is required to ensure H-20 loading capability for any system to be installed, whether as specified or as contemplated by these changes)
- Dura-Plate 100 PVC lining of concrete manhole wetwell structure



- Provision of a 40”-diameter Fibrelite polymer manhole cover vs. the 30” cast iron specified to afford full access to the pumping system as well as minimize weight for operations staff
- Deteriorated curbing scheduled to be removed by the Documents was buried gutter curb and not standard curbing, which required pavement removal and extra effort to demolish
- Installation of new curbing to replace demolished curbing, as necessitated for proper protection of the newly installed equipment as well as specifically requested by the Town of Boonton (no new curbing was scheduled to be installed per the Documents)
- Installation of a concrete pad for the generator/generator enclosure, as no pad was scheduled per the Documents
- Extensive changes to the pump control system to not only provide proper operation, but backup operation on new back-up floats as well as local annunciation of failure conditions and a more complete register of alarms to be relayed to the station’s Mission remote interface
- Extensive changes to the electrical distribution/service gear, inclusive of adding a manual transfer switch and other components
- Incorporating the generator plug into the generator enclosure to mitigate the potential for vandalism or accidental disconnection when on generator power
- Addition of lighting within the control panel, within the generator enclosure, and an area light for operator safety
- Due to the sensitive nature of the electronics and electrical gear, the electrical enclosure was upgraded from an aluminum, NEMA 3R (rain-proof), open/vented enclosure to a stainless steel, NEMA 4X (enclosed, corrosion-resistant), non-vented enclosure
- Slightly longer lengths of conduit and wire are required due to the relocation of the electrical/control gear to a safer location further up the hill
- Electrical conduits buried under the roadway are to be concrete encased in lieu of simply buried (as generally recommended and in closer accordance with DOT standards)
- Provision/installation of a “Pagoda” vent system to more appropriately and attractively terminate the wetwell vent as well as provide a passive activated carbon filter to effect odor control

Cost

The proposed cost for this Additional Work is **\$53,966.68**. The cost was heavily negotiated and, as can be seen in the supporting, attached quotations, Tomar further discounted pricing even below their quoted subcontractor costs. The manner in which the additional cost has been calculated is the result of Tomar providing a full and complete credit for provision and installation of the grinder pump station and the electrical work appurtenant thereto. The credit includes all overhead and profit, and is a complete reimbursement for lines 28.1.1 and 28.1.5 of their approved Schedule of Values. Proceeding in this fashion not only greatly simplified the differential accounting for dozens of items, it also provided for greater credit to RVRSA on the whole. With a complete refunding of the costs, Tomar then itemized the cost to complete the work per the redesign, inclusive of all the changes. The costs include all material, equipment, and labor as well as Contract-allowable percentages for overhead and profit (OH&P). As a frame of reference, the cost for this Additional Work constitutes **1.24%** of the original Contract cost. Kleinfelder has reviewed the submitted cost and has found it acceptable.



Contract Time

The Contractor is requesting 40 (forty) days of additional, compensable time for this Work. Kleinfelder has reviewed the chronology of events associated with this change and can identify at least 39 days of justifiable additional time consequent only to the redesign of the electrical and control system. An additional 5 (five) days would be considered reasonable for both electrical panel construction and other additional work in the field (back-up float system, lighting, generator plug relocation, etc.). Mechanical changes and work related to the submitted "or equal" system were vetted and completed concurrently with the electrical and controls changes. No extra time would be appropriate to those changes, and no extra time for such has been requested. Accordingly, the Contractor is seeking LESS additional time compared to that identified as justifiable by Kleinfelder.

Previous adjustments to the Contract Time totaled 34 days, as implemented under Change Orders #2 (4 days) and #3 (30 days), increasing Contract Time from 300 to 334 days. This Change Order #4, should it be approved, will further **increase Contract Time by 40 days**, effecting a ***cumulative total adjustment of 74 days***. The Contract Time, pursuant to this Change Order #4 would provide for a revised total time of **374 days**.

The original date of Contract Completion was June 28, 2016. The combination of Change Orders #2 and #3 affected adjustment to August 2, 2016. This Change Order #4, should it be approved, will adjust the date of Contract Completion to **September 11, 2016**.

Please note that the cost of this adjustment in Contract Time is NOT reflected in this Change Order, but, rather, is incorporated into the concurrent, separately-tendered and recommended Change Order #5 which aggregates all time-related costs to date.

Funds Availability

As you are aware, the Project is funded through a loan by the New Jersey Environmental Infrastructure Trust. As such, your total loan amount includes a contingency in the amount of 5% of the total Contract cost. Your original Contract cost for this project is \$4,359,223.00. Based on this amount, your total loan amount included a contingency in the amount of \$217,961.15. To date, three (3) Change Orders have been approved, in the total credit amount of *(\$64,694.40)*. Accordingly, \$282,655.55 of contingency funds remain, which is sufficient to fund this Additional Work.

Inclusive of this Change Order, the cost of all Change Orders is a ***net credit of (\$10,727.72)***, which represents ***-0.25%*** of the original Contract cost. Based upon the progress of the project to date, remaining work to be completed, and the potential for future Change Order work to present itself, it is anticipated that sufficient contingency funds **(\$228,688.87)** will remain even after approval/execution of this Change Order.



The Work anticipated by this Change Order fit the purpose and description of Work typically allowable and acceptable by NJDEP under the contingency and projects funded through the NJEIT.

It is our understanding that this Change Order is due for more formal discussion at your upcoming Infrastructure Committee meeting on February 28. Kleinfelder will make itself available to facilitate discussion and assist you and the Directors at that time should you request such assistance. The costs provided Tomar have also been attached for your use and reference.

It is our recommendation that the Authority draft and execute a resolution formally authorizing this Change Order and adjusting the Contract Amount from its current amount of \$4,294,528.60 to a new amount of **\$4,348,495.28**. Kleinfelder will then forward all requisite paperwork, inclusive of NJDEP's "Contract Modification Proposal and Acceptance" form, for processing by NJDEP/NJEIT.

It is our pleasure to be of continued service to the Authority in the administration of this important construction contract. Should you have any questions or require any further information, please do not hesitate to contact me directly via telephone at (609) 454-4570 or via email to mbean@kleinfelder.com.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Bean".

Mark A. Bean, P.E., CGP, LEED AP, FIGP
Principal Engineer

Enclosures

c: J. Mondini – Executive Director, RVRSA
S. Allen - RVRSA
T. Bradley, w/o enclosure
2045U, w/enclosure

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE

9. ISSUING OFFICE Rockaway Valley Regional Sewerage Authority	10. PROJECT NO. S340821-06	11. CONTRACT NO. 38	12. MODIFICATION NO. Number 4
13. CONTRACTOR'S PROPOSAL – CHANGE IN CONTRACT PRICE (Detailed breakdown, attach additional sheets as necessary)			
(Proposed) Please See Attached – Affixed to Change Order Recommendation by Mark A. Bean of Kleinfelder dated March 2, 2017.			
NET INCREASE \$ <u>53,966.68</u>		NET DECREASE \$ _____	
DATE: March 9, 2017		TYPE NAME AND TITLE: Vijay Thomas, Project Manager	
CALENDER DAYS INCREASE <u>40</u> DAYS		SIGNATURE:	

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE

14. ISSUING OFFICE & PROJECT NO. Rockaway Valley Regional Sewerage Authority S340821-06	15. CONTRACT NO. <p style="text-align: center;">38</p>	16. MODIFICATION NO. <p style="text-align: center;">Number 4</p>
17. ORIGINAL CONTRACT BID PRICE \$ <u>4,359,223.00</u> TOTAL OF PREVIOUS CHANGE ORDERS \$ <u>-64,694.40</u> TOTAL CONTRACT COST INCLUDING CHANGE ORDERS ... \$ <u>4,348,495.28</u>		
18. NECESSITY FOR CHANGE AND REASON FOR OMISSION FROM PLANS AND SPECIFICATIONS: Please see attached Change Order Recommendation by Mark A. Bean of Kleinfelder dated March 2, 2017.		
19. OTHER IMPACTS RESULTANT OF THIS CHANGE: None.		
20. RESUME OF NEGOTIATIONS OR RECOMMENDATIONS (Loanee's Representative) : Please see attached Change Order Recommendation by Mark A. Bean of Kleinfelder dated March 2, 2017.		
DATE: March 9, 2017	TYPE NAME AND TITLE OF LOANEE'S REPRESENTATIVE: Mark A. Bean, P.E., CGP, LEED AP, FIGP Principal Engineer Kleinfelder	SIGNATURE:



TOMAR CONSTRUCTION SERVICES

18 CONNERTY COURT, EAST BRUNSWICK, NJ 08816

Tel # 732 238 0700, Fax # 732 238 0701

www.tomarconstruction.com

February 21, 2017

Via Email

Mark Bean
Kleinfelder
321 Wall Street
Princeton, NJ 08540

Re: Rockaway Valley Regional Sewerage Authority
Monroe St Pumping Station, Force Main, and Morris Ave Gravity Sewer – Contract 38
Proposal for Change Order #11 – Grinder Station for Harrison Street – Rev 2

Dear Mr. Bean:

As discussed in previous progress meetings and field discussions, there are a number of design flaws and potential issues with the grinder pump station for Harrison Street as depicted in the Contract Drawing P-6. Tomar Construction has worked diligently with the engineer and owner to provide a better alternative. The following proposal addresses these necessary upgrades which will be beneficial to RVRSA for future maintenance.

One of the major issues with the original design of the grinder pump station is that it did not foresee providing access for future maintenance of the grinder pumps. Thus, instead of the tank that is buried and difficult to service, the grinder pumps are installed in a fully accessible lined manhole with an enlarged manhole cover made with a durable yet light construction. These upgrades provide numerous benefits that include cost savings for future work in the area.

Along with the changes to the grinder pumps, the control panel for these pumps have been upgraded to provide better stability and reliability. The original contract did not account for a number of necessary items such as a pad for the generator or lights to benefit RVRSA's service crews. Also, new curbs were needed on either side of the road way due to issues with the service line changes and in coordination with the town inspectors.

Finally, the location of the grinder pump station and control panels needed to be moved based on existing utilities, snow removal issues, and protection from erosion near the steep slope. The grinder station was moved to the other side of the existing manhole. The control panel was moved further away from the steep slope, which increased the conduit and wire lengths.

For the sake of transparency, the line items within the schedule of values that relate to these items have been provided as a full credit (note that the O&P has also been provided in this instance). Also, additional time has been assessed but not finalized as the overall impact has not been ascertained.

Revision #1 has again revisited the costs to find any cost savings to provide back to RVRSA.

Please review and process accordingly.

Thank you.

Very truly yours,

Vijay Thomas
Project Manager

c. Thomas G. Mottackal, Tomar
Matt Kurian, Tomar
Bob Sohban, Tomar

TOMAR CONSTRUCTION
 18 CONNERTY COURT
 EAST BRUNSWICK, NJ 08816
 TEL: (732) 238-0700
 FAX: (732) 238-0701

We are pleased to submit the following estimate for the additional work
 Project: Rockaway Valley Regional Sewerage Authority, Contract 38 Monroe St Pumping Station, Force Main, and Morris Ave Gravity Sewer
Additional Work: Proposal for Change Order #11 - Harrison St Grinder Station Upgrades - Rev 2

Ref.	Description	Material			Labor*			Equip./Subcontract			Total Cost	
		Unit	Qty	Rate	Cost	Labor Hours (LH)	Total LH	Total Cost	LS	Rate		Cost
1	Credit for Original Design											
1.1	SOV Line Item - 28.1.1.1 Furnish and Install Grinder Pump Station	LS										
1.2	SOV Line Item - 28.1.1.5 Furnish and Install Electrical work	LS										
2	Furnish and Install Grinder Station											
2.1	Furnish and Install New 48" Lined Manhole with FRP Cover	LS	1	8760	8760	106	106	9565.72	1	7606.88	7606.88	\$25,932.60
2.2	Furnish and Install Grinder, Guide Rails, and Other Appurtences	LS	1	15220	15220	48	48	4331.65				\$19,551.65
2.3	Furnish Electrical Control Panel with Modifications	LS	1	15143	15143				1	3250.00	3250	\$18,393.00
2.4	Install Concrete Encase Ductbank	LS	1	945	945	32	32	2887.76				\$3,832.76
2.5	Remove Concrete Curb and Concrete Gutter	LS	1			16	16	1443.88				\$1,443.88
2.6	Install New Curb to match existing	LS	1	760	760	52	52	4692.62				\$5,452.62
2.7	Furnish and Install Pad	LS	1	860	860	64	64	5775.53				\$6,635.53
2.8	Furnish and Install Pagoda Vent	LS	1	284	284				1	200.00	200	\$484.00
	Cost of Additional Work				\$41,972.00			\$28,697.15			\$11,056.88	\$81,726.03
	10% Overhead Subcontractor's Fee per Contract 38 Article XXXI-a							Subcontractor Costs=			\$57,462.03	\$5,746.20
	10% Profit Subcontractor's Fee per Contract 38 Article XXXI-a											\$5,746.20
	10% Profit Contractor's Fee per Contract 38 Article XXXI-a											\$6,895.44
	10% Overhead Contractor's Fee per Contract 38 Article XXXI-a							Contractor Costs =			\$24,264.00	\$2,426.40
	10% Profit Contractor's Fee per Contract 38 Article XXXI-c											\$2,426.40
	Total of All Costs											\$104,966.68
	CREDIT - Total											-\$51,000.00
	Total Proposal Cost											\$53,966.68

*Labor costs shown are provided through a subcontractor.

Abbreviation: Ea = each, CY = cubic yards, LS = lump sum, SF = square feet, SY = square yard, T= tons, Da= Day

Estimated Increase in Contract Time (Breakdown)

Description of Activities	Start Date	Stop Date
Total Additional Time (Days)		40

We hope that this proposal will meet with your approval and a contract modification issued to facilitate procurement of the materials and proceed with the additional work.

Sincerely,
 Vijay Thomas, Project Manager

PROPOSAL FOR HARRISON ST MANHOLE INSTALLATION FOR GRINDER

KULPEKSA LAND IMPROVEMENTS

248 FRANKLIN AVE
 ROCKAWAY, N.J.
 201-638-0552
 loucaruso13@gmail.com

DATE February 20, 2016

TO VIJAY THOMAS
 TOMAR CONSTRUCTION
 18 CONNERTY COURT
 EAST BRUNSWICK, N.J.

JOB RVRSA - MONROE ST PUMP STATION AND GRAVITY SEWER. WASHINGTON ST

QUANTITY	DESCRIPTION	UNIT PRICE	LINE TOTAL
26.5	INSTALL MANHOLE OPERATOR	104.10	2,758.85
79.5	LABORER	89.21	7,092.20
32	CAT 325 EXCAVATOR (per hr)	122.17	3,908.44
32	CAT LOADER	60.92	1,949.44
2	8' X 10' TRENCH BOX (per day)	90.00	180.00
4	STEEL PLATES (per day)	42.00	168.00
4	SERVICE TRUCK	350.00	1,400.00
	INSTALL GRINDER		
12	OPERATOR	104.10	1,249.20
36	LABORER	89.21	3,211.56
	INSTALL CONCRETE ENCASED DUCTBANK		
8	OPERATOR	104.10	832.80
24	LABORER	89.21	2,141.04
	DEMO EXISTING CURB - GUTTER		
4	OPERATOR	104.10	416.40
12	LABORER	89.21	1,070.52
	INSTALL NEW CURBS		
12	OPERATOR	104.10	1,249.20
40	LABORER	89.21	3,568.40
	INSTALL NEW CONCRETE PADS		
8	OPERATOR	104.10	832.80
56	LABORER	89.21	4,985.76
1	SUPPLY CONCRETE & REBAR	2,565.00	2,565.00
	SUBTOTAL \$		39,590.41
	10% OH \$		3,959.04
	10% PROFIT \$		3,959.04
	TOTAL \$		47,508.49



Thomas Controls, Inc.

18 Connerty Court, Suite C, East Brunswick, NJ 08816
Tel: (732) 354-0603 // Fax: (732) 238-0701

January 24, 2017

Tomar Construction Services, Inc.
ATTN: Vijay Thomas, PM
Project: RVRSA Contract 38 – Monroe Street Pumping Station

In review of the modifications to the Harrison Street Grinder Station, please see the change order costs provided below.

	Item	Manf.	Price
1	Panel Enclosure	Eaton	
2	Back Panel	Eaton	
3	Nema 4X JB	Eaton	
4	Amber Strobe Light		
5	Utility Meter Base	Mitbank	
6	SPD	Siemens	
7	Disconnect Switch	Siemen	
8	Manual Transfer Switch	Generac	
9	Alarm Telemetry RTU	Mission	
10	Receptacle		
11	Pole/Panel/ Generator enclosure Lights		
12	generator	Generac	
13	Generator enclosure	VPC	
14	Portable Gen Power Cord & receptacle	Generac	
SUPPLY TOTAL			\$ 15,143.00
15	Engineering		\$ 1,000.00
16	Panel fabrication		\$ 3,000.00
17	Site installation and termination		\$ 2,500.00
Total			\$ 22,000.00

Thank you.

~Bijo Thomas

c. Joe Thomas, TCI