



TOWN OF WAREHAM

Board of Sewer Commissioners

Meeting Agenda

DATE: October 24, 2019 **TIME:** 6:30 P.M.

LOCATION: Wareham Multi Service Center, Room 320, 48 Marion Road, Wareham, MA

1. CALL MEETING TO ORDER

2. ROLL CALL

3. APPROVAL OF MEETING MINUTES

October 10, 2019

4. SEWER BUSINESS

a) Abatements

1. 74 Algonquin St. - Account No. 736597 – Map 7, Lot 369
2. 11 Woodbury St. – Account No. 736230 – Map 3, Lot 38
3. 41 East Blvd. – Account No. 735234 – Map 1, Lot W11
4. 18 Rose Point Ave. – Account No. 792290 – Map 78-2, Lot 157
5. 29 Warr Ave. – Account No. 737234 – Map 46, Lot 45

b) Contracts

- GHD Inc. - Engineering Services (Generator Replacement)
- GHD Inc. – Final Design (Overflow Lagoon)

c) Pre-Treatment Coordinator Status

5. SEWER SUPERINTENDENT'S REPORT

6. UNFINISHED BUSINESS AND GENERAL ORDERS (Unanticipated Items)

1. Up-date on Sea St.
2. Sump Pumps
3. Stone Path
4. Homes not Connected to Town Sewer
5. EDU rates

7. NEW BUSINESS

1. Town Meeting Warrant- update

8. NEXT MEETING DATE AND TIME

November 7, 2019 6:30 p.m. - Rm 320

9. ADJOURNMENT

Posted 10/22/19 7:30am

MINUTES OF MEETING OF BOARD OF SEWER COMMISSIONERS

Date of Meeting: October 10, 2019
Date of Transcription: October 16, 2019
Transcribed by: Anita Mendes

1. MEETING TO ORDER

Commissioner Giberti called the meeting to order at 6:30 p.m.

2. ROLL CALL

Sewer Commissioners Present: James R. Giberti
Donna M. Bronk
Peter G. Dunlop
Malcom R. White
Sandra Slavin - arrived 6:40pm
Also present: Guy Campinha, Sewer Superintendent

3. APPROVAL OF MEETING MINUTES

August 22 2019

MOTION: Commissioner Bronk motion to approve August 22, 2019 minutes as written.
Commissioner White seconded.

VOTE: 3-0-1

Commissioner Dunlop - abstain

September 12, 2019

MOTION: Commissioner Dunlop motion to approve September 12, 2019 minutes as written. Commissioner Bronk seconded.

VOTE: 3-0-1

Commissioner White - abstain

4. SEWER BUSINESS

1. Contracts

a. OSD LLC – Addendum Engineering Services- Vehicle Sludge Roofs

MOTION: Commissioner White motion to approve addendum for Engineering Services for the Vehicle Sludge Roofs. Commissioner Bronk seconded.

VOTE: 5-0-0

b. OSD LLC – Addendum Engineering Services – Sludge Dewatering Roofs

MOTION: Commissioner White motion to approve addendum for Engineering Services for the Sludge Dewatering Roofs. Commissioner Bronk seconded.

VOTE: 5-0-0

3. Pre-Treatment Coordinator Status: Work in progress

5. SEWER SUPERINTENDENT'S REPORT

Mr. Campinha is asking the Board to extend the original OSD Engineering Contract, which had expired, to pay outstanding invoices for the WPCF (Water Pollution Control Facility) Vehicle Storage Garage and Septage Blower Buildings and the Sludge Dewatering Roof Replacement Project.

MOTION: Commissioner Slavin motion to extend OSD Contract.
Commissioner White seconded

VOTE: 5-0-0

Mr. Campinha discussed the meeting with the Board of Selectmen about the funding for the lining of the unlined Basin. Will know more on the article Tuesday October 15, 2019 : various questions from the Board.

Update on Sea St. – Mr. Campinha let the Board know that they did the borings and they came out perfect, went down 22 feet and the soils were incredible. So why it sunk we don't know. We are getting the design ready to go out to bid ASAP.

Mr. Campinha explained that the 600K for Sea St no longer exist, there was a problem on how the article was written for FY19 budget, so it went back into the retained earnings. Need to submit a Special Spring Article for the 600k using FY20 budget.

Update on the Lagoons – Mr. Campinha explained as of this morning (Thursday Oct. 10, 2019) we have had .4 inches of rain not much at all the back basin is half full and the front about quarter full, but we are expecting more rain to come.

6. UNFINISHED BUSINESS AND GENERAL ORDERS (Unanticipated Items)

1. **Sump pumps-** Discussion in the Superintendents Report
2. **Stone Path** – No new information this week.
3. **Houses not connected to Town Sewer**— Letters mailed out from the BOH (Board of Health) so far six (6) homes have connected.

4. **EDU Rates:** No update, waiting on Tighe & Bond final report.

7. **NEW BUSINESS**

Meeting with Bourne Sewer Commissioners on October 16, 2019 or November 4, 2019 would like to meet with the Wareham Board of Sewer Commissioners at their site. Discussion on the IMA.

Warrant – The Town Warrant will be changed to modify the article for 2.5M for a lined equalization basin and 150K for engineering plans for the filters and covered lagoon-available funds and/or borrowing.

8. **NEXT MEETING DATE AND TIME**

October 24, 2019 6:30 p.m. - Rm 320

9. **ADJOURNMENT**

Commissioner Slavin would like to add two (2) items to the current minutes:

1) The wrong dollar amount was mentioned in the September 12, 2019 minutes, the correct dollar amount for the CZM grant for the Basins should read \$151,140

2) There was no Board of Sewer Commissioners Meeting on September 26, 2019 agenda was not posted in time.

MOTION: Commissioner Bronk motioned to adjourn. Commissioner Dunlop seconded.

VOTE: 5-0-0

Meeting adjourned 7:30p.m.

Respectfully submitted,

Anita Mendes

Department Assistant

Attest: _____

Sandra L. Slavin, Clerk

BOARD OF SEWER COMMISSIONERS

Date Signed _____

Date sent to the Town Clerk _____



WAREHAM WATER POLLUTION CONTROL FACILITY

6 Tony's Lane
Wareham, MA 02571
Telephone (508) 295-6144
Fax (508) 291-0155
TTY (800)439-2370

MEMORANDUM

DATE: October 1, 2019

TO: Board of Sewer Commissioners

FROM: Guy Campinha, Director, Wareham Water Pollution Control

SUBJECT: Abatement Recommendation – Sewer Usage Billing – 2nd 1/2 2019
1st 1/2 2020

Acct #736597
Map 7, Lot 369
74 Algonquin St.
Margaret Haley

The water was turned off to the property since November 8, 2017.

I am recommending the 2nd half of FY2019 in the amount of \$104.34 as well as the 1st half of FY2020 in the amount of \$313.00 for a total of \$417.34 be abated as we can only go back one full year despite the length of time the water was off at the property.

Attachment
cc: file WPCF

GC/am



WAREHAM WATER POLLUTION CONTROL FACILITY

6 Tony's Lane
Wareham, MA 02571
Telephone (508) 295-6144
Fax (508) 291-0155
TTY 1-800-439-2370

Application for Abatement

Name of Applicant: Margaret Haley

Property Location: 74 Algonquin St.

Mailing Address (if different): 47 Front St. Weymouth MA 02188

Map: 7 Lot: 369 Total Amount of Sewer Bill: 313 + 328 = 641.⁰⁰

Amount requested to be abated: \$641. Account number: 736597

Reason for request: Water has been shut off
since Nov 8, 2017.

Documentation supporting request is attached? Yes No
(such as letter from Water Dept. as to when they shut off water/removed meter and/or letter from Board of Health giving a date as to when they deemed the property uninhabitable, when fire/flood or other disaster destroyed property)

Signature of Applicant: Margaret T. Haley

Date: Sept. 6 2019

Phone Number: 781-335-1056

Onset Fire District

ONSET WATER DEPARTMENT
15 SAND POND ROAD
Onset, Massachusetts 02558
Telephone Wareham (508) 295- 0603
FAX (508) 295-0606

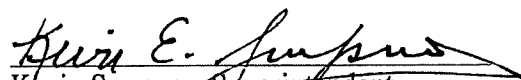
Board of Water Commissioners
Francis Kowzic/Chairman
BenjaminHughes/Clerk
Kenneth Fontes

Town of Wareham
Marion Road
Wareham Ma.02571-

To whom it may concern:

The water was shut off at 74 Algonquin Street on November 8, 2017.
The property is under the name of Paul Haley.
If you need further assistance please give us a call.

Sincerely,


Kevin Sampson-Superintendent
August 5, 2019



WAREHAM WATER POLLUTION CONTROL FACILITY

6 Tony's Lane
Wareham, MA 02571
Telephone (508) 295-6144
Fax (508) 291-0155
TTY (800)439-2370

MEMORANDUM

DATE: October 1, 2019

TO: Board of Sewer Commissioners

FROM: Guy Campinha, Director, Wareham Water Pollution Control

SUBJECT: Abatement Recommendation – Sewer Usage Billing – 2nd 1/2 2019
1st 1/2 2020

Acct #736230
Map 3, Lot 38
11 Woodbury St.
Lisa Nelson

The water was turned off to the property since September 2014.

I am recommending the 2nd half of FY2019 in the amount of \$313.00 as well as the 1st half of FY2020 in the amount of \$313.00 for a total of \$626.00 be abated as we can only go back one full year despite the length of time the water was off at the property.

Attachment
cc: file WPCF

GC/am



WAREHAM WATER POLLUTION CONTROL FACILITY

6 Tony's Lane
Wareham, MA 02571
Telephone (508) 295-6144
Fax (508) 291-0155

Application for Abatement

Name of Applicant: LISA

Property Location: 11 Woodbury St, Onset

Mailing Address (if different): 23 Red Mill Rd. Bridgewater, MA

Map: _____ Lot: 3-38 Total Amount of Sewer Bill: \$ 658.91

02324

Amount requested to be abated: _____ Account number: 736230

Reason for request: water has been shut off from Sept 10, 2014. Have paid since then.

Documentation supporting request is attached? Yes No _____
(such as letter from Water Dept. as to when they shut off water/removed meter and/or letter from Board of Health giving a date as to when they deemed the property uninhabitable, when fire/flood or other disaster destroyed property)

Signature of Applicant: Lisa Nilsson

Date: 9/2/19

Phone Number: 508-574-3090 (cell)
508-697-9054 (home)

Onset Fire District

ONSET WATER DEPARTMENT
15 SAND POND ROAD
Onset, Massachusetts 02558
Telephone Wareham (508) 295- 0603
FAX (508) 295-0606

Board of Water Commissioners
Francis Kowzic/Chairman
Benjamin Hughes/Clerk
Kenneth Fontes

Water Pollution Control
Tony's Lane
Wareham, Ma. 02571

To Whom It May Concern:

The water was shut off at 11 Woodbury Street on September 10, 2014. The property is under the name of Nelson, Jack & Lisa, old owner was Dangoia, Mrs. Erma. If you need further assistance please give us a call.

Sincerely,



Kathi Semple/Office Manager

August 19, 2019



WAREHAM WATER POLLUTION CONTROL FACILITY

6 Tony's Lane
Wareham, MA 02571
Telephone (508) 295-6144
Fax (508) 291-0155
TTY (800)439-2370

MEMORANDUM

DATE: October 1, 2019

TO: Board of Sewer Commissioners

FROM: Guy Campinha, Director, Wareham Water Pollution Control

SUBJECT: Abatement Recommendation

Acct #735234
Map 1, Lot W11
41 East Blvd.
Johnson Glenn & Johnson Pamela

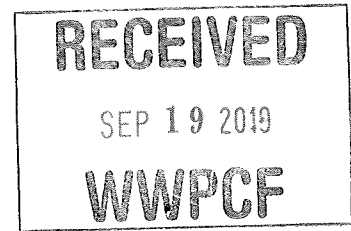
I am recommending that the abatement application for FY19 in the amount of \$626.00 and 1st half FY20 in the amount of \$313.00 be Denied, water has not been shut off for 1 (one) full year per policy, as there isn't a criteria or policy regarding minimum usage of water to determine a basis for an abatement.

Attachment
cc: file



WAREHAM WATER POLLUTION CONTROL FACILITY

6 Tony's Lane
Wareham, MA 02571
Telephone (508) 295-6144
Fax (508) 291-0155
TTY 1-800-439-2370



Application for Abatement

Name of Applicant: Glenn + Pamela Johnson
Property Location: 41 East Blvd. Onset
Mailing Address (if different): 14 Brightside Ave Shrewsbury, MA 01545
Map: 1 Lot: W11 Total Amount of Sewer Bill: 992.57
Amount requested to be abated: All Account number: 735234
Reason for request: See attached letter

Documentation supporting request is attached? Yes No
(such as letter from Water Dept. as to when they shut off water/removed meter and/or letter from Board of Health giving a date as to when they deemed the property uninhabitable, when fire/flood or other disaster destroyed property)

Signature of Applicant: [Signature]

Date: 9/15/19

Phone Number: 508-889-9189

Glenn E Johnson
14 Brightside Ave
Shrewsbury, MA 01545
508-889-9189

September 14, 2019

Wareham Water Pollution Control Facility
6 Tony's Lane
Wareham, MA 02571

RE: Sewer Abatement for 41 East Blvd., Onset.

To Whom It May Concern:

My wife and I purchased the subject property in late June of 2018. At that time, the house had been vacant since 2015. Prior to our purchasing the property, all utilities to the house had been shut off for some time, and significant outstanding balances to both the Water and Sewer departments existed. Those balances were paid off at closing.

After purchasing the property, we removed much of the existing plumbing, which had been damaged by freeze ups and general neglect. That plumbing is to be replaced during future renovations. The house continues to be vacant, and is currently undergoing the initial stages of renovation. At present, only a garden hose connection is operable at the property. We have had a portable toilet on the site for much of the past 14 months, due to the lack of properly functioning plumbing.

We received both a demand and a regular bill at the beginning of August. Prior to those August 2019 bills, we had not received any sewer bills since taking ownership of the property. That did not seem strange to me, because of the fact that we had not used any water, other than a garden hose connection for contractor use, and that amount was extremely low. When I received the August 2019 bill, I did not pay much attention to the amount, as I expected there could only a small amount due, because of our lack of water usage. It was only after I inquired about the amount due I learned that there was a back balance, and that in Wareham, water and sewer rates were calculated separate from one another. While we have had the water turned

on and off several times, there has been virtually no usage, and no water is going into the sewer system.

I am requesting an abatement of the back balance due. Given the circumstances I have explained here, I hope it is clear why this was not done sooner. Simply put, we were not aware of any sewer bill or balance until we received this August bill.

I have included a water usage history from the Onset Water Department, which clearly shows that, aside from a large leak that developed sometime in 2015 or early 2016, there has been virtually no usage since 2014. During the period of vacancy prior to our purchase of the property, there were multiple failures of the plumbing system, at least one of which resulted in a significant leak developing in late 2015/early 2016. This leak resulted in a large consumption of water during 2016. After that point, the water to the house was turned off.

I respectfully ask that you consider and grant our request for this abatement. This request is submitted in good faith, and we look forward to becoming actual usage customers when our renovations are completed in the future. Please do not hesitate to contact me with any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read 'Glenn Johnson', with a long horizontal line extending to the right.

Glenn Johnson

ONSET WATER DEPARTMENT

CUSTOMER STATEMENT

| | | | | | |
|-----------|--------------|------|---------|--------|---------|
| 1/28/2019 | PAYMENT | 0.00 | 0.00 | 0.00 | -112.50 |
| 3/22/2019 | INV-ON 10/18 | 0.00 | 0.00 | 0.00 | 75.00 |
| 3/25/2019 | INV-OFF/ON | 0.00 | 0.00 | 0.00 | 150.00 |
| 3/25/2019 | PAYMENT | 0.00 | 0.00 | 0.00 | -225.00 |
| 5/24/2019 | WATER BILL | 0.00 | 0.00 | 150.00 | 0.00 |
| 6/25/2019 | PAYMENT | 0.00 | -150.00 | 0.00 | 0.00 |

Consumption History

| <u>DATE</u> | <u>READING</u> | <u>CONS</u> | <u>ADD CONS</u> |
|-------------|----------------|-------------|-----------------|
| 4/1/2019 | 18 | 18 | 0 |
| 10/1/2018 | 0 | 0 | |
| 5/9/2018 | 0 | 0 | |
| 4/1/2018 | 0 | 0 | |
| 12/1/2017 | 0 | 0 | |
| 11/30/2017 | 15,672 | 0 | |
| 10/1/2017 | 15,672 | 0 | |
| 4/1/2017 | 15,672 | 433 | |
| 10/1/2016 | 15,239 | 11,698 | |
| 4/1/2016 | 3,541 | 2,287 | |
| 10/1/2015 | 1,254 | 266 | |
| 4/1/2015 | 988 | 639 | |
| 10/1/2014 | 349 | 349 | |
| 4/29/2014 | 0 | 0 | |
| 4/28/2014 | 1,947 | 0 | |
| 4/1/2014 | 1,947 | 5,380 | |
| 10/1/2013 | 96,567 | 354 | |
| 4/1/2013 | 96,213 | 581 | |
| 10/1/2012 | 95,632 | 574 | |
| 4/1/2012 | 95,058 | 458 | |
| 10/1/2011 | 94,600 | 4,314 | |
| 4/1/2011 | 90,286 | 8,163 | |
| 10/1/2010 | 82,123 | 7,222 | |
| 4/1/2010 | 74,901 | 2,940 | |
| 10/1/2009 | 71,961 | 4,344 | |
| 4/1/2009 | 67,617 | 2,528 | |
| 10/1/2008 | 65,089 | 3,442 | |
| 4/1/2008 | 61,647 | 980 | |
| 10/1/2007 | 60,667 | 1,494 | |
| 4/1/2007 | 59,173 | 2,464 | |
| 10/1/2006 | 56,709 | 1,694 | |
| 4/1/2006 | 55,015 | 2,585 | |
| 10/1/2005 | 52,430 | 2,679 | |
| 4/1/2005 | 49,751 | 5,907 | |
| 10/1/2004 | 43,844 | 2,209 | |
| 4/1/2004 | 41,635 | 7,298 | |
| 10/1/2003 | 34,337 | 4,371 | |
| 4/1/2003 | 29,966 | 1,440 | |
| 10/1/2002 | 28,526 | 4,660 | |
| 4/1/2002 | 23,866 | 766 | |
| 10/1/2001 | 23,100 | 4,648 | |
| 4/1/2001 | 18,452 | 763 | |
| 10/1/2000 | 17,689 | 2,853 | |
| 4/1/2000 | 14,836 | 1,261 | |
| 10/1/1999 | 13,575 | 5,638 | |
| 4/1/1999 | 7,937 | 2,208 | |

Balance Due:

0.00

TOWN OF WAREHAM

54 MARION RD
WAREHAM MA 02571

COLLECTOR OF TAXES John D. Foster


| 2020 SEWER USAGE | |
|-------------------|----------------|
| Assessed Owner | Account Number |
| JOHNSON GLENN E J | 735234 |

| | |
|----------------------------|-----------------------------------|
| Parcel Identifier 1-W11 | |
| ACCOUNT # 735234 | PROPERTY LOCATION 41 EAST BLVD |

| | | |
|-----------|-----------|------------|
| MAIL DATE | DUE DATE | AMOUNT DUE |
| 8/12/2019 | 9/11/2019 | \$992.57 |

| | | |
|----------|---|-----------|
| 2/1/2019 | - | 7/31/2019 |
|----------|---|-----------|

Equivalent Dwelling Unit: 1


 UT JOHNSON GLENN E J
 JOHNSON PAMELA J
 14 BRIGHTSIDE AVE
 SHREWSBURY, MA 01545-5308
 5

SEE REVERSE SIDE OF THIS BILL FOR MORE BILL INFORMATION

Questions regarding sewer bill: For general billing and assessment information regarding sewer usage bills, contact the Water Pollution Control Facility at 508-295-6144, 8:00am to 4:00pm, Monday thru Friday.

Questions regarding payment: For information regarding payment(s) for sewer usage bills, contact the Treasurer/Collector's Office at 508-291-3150, Monday, Wednesday, and Thursday 8:15 AM - 6:00 PM and Tuesday 8:15 AM - 6:30 PM.

Abatement/adjustment for sewer usage bill: Requests for abatements or adjustments must be filed with the Water Pollution Control Facility, 6 Tony's Lane, Wareham, MA 02571 on or before 30 days from the due date of this bill.

| | |
|----------------|----------|
| CURRENT CHARGE | \$313.00 |
| PAST DUE | \$626.00 |
| INTEREST | \$53.57 |
| TOTAL DUE | \$992.57 |

RATE
\$626.00 per Equivalent Dwelling Unit
per year

| | |
|--|---|
| Address Changes: ASSESSORS OFFICE: (508) 291-3160 | Payment Inquiries: Treasurer/Collector's Office: (508) 291-3150 John D. Foster, Treasurer/Collector |
|--|---|

Parcel Identifier 1-W11
41 EAST BLVD

COLLECTOR'S COPY - RETURN WITH YOUR PAYMENT BY: 9/11/2019

TOWN OF WAREHAM
 TREASURER/COLLECTOR
 54 MARION ROAD
 WAREHAM, MA 02571

| 2020 SEWER USAGE | | | |
|------------------|----------------|------------|------------------|
| Due Date | Account Number | Amount Due | Payment Enclosed |
| 9/11/2019 | 735234 | \$992.57 | |

MAKE CHECK PAYABLE TO: TOWN OF WAREHAM AND MAIL TO:

Bill Mailed To:
JOHNSON GLENN E J
JOHNSON PAMELA J
14 BRIGHTSIDE AVE
SHREWSBURY, MA 01545-5308

TOWN OF WAREHAM
OFFICE OF TOWN COLLECTOR
P.O. BOX 578
MEDFORD, MA 02155-0006



WAREHAM WATER POLLUTION CONTROL FACILITY

6 Tony's Lane
Wareham, MA 02571
Telephone (508) 295-6144
Fax (508) 291-0155
TTY (800)439-2370

MEMORANDUM

DATE: October 1, 2019

TO: Board of Sewer Commissioners

FROM: Guy Campinha, Director, Wareham Water Pollution Control

SUBJECT: Abatement Recommendation

Acct #792290
Map 78-2, Lot 157
18 Rose Point Avenue
Ralph A. Todino

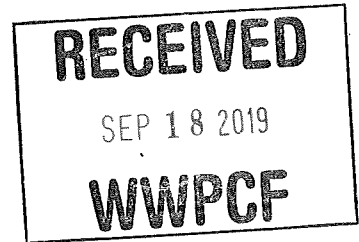
I am recommending that the abatement application be Denied for \$200.00. The home does have a well, but the homeowner did imply on their application that they come on the weekends.

Attachment
cc: file



WAREHAM WATER POLLUTION CONTROL FACILITY

6 Tony's Lane
Wareham, MA 02571
Telephone (508) 295-6144
Fax (508) 291-0155



Application for Abatement

Name of Applicant: Ralph A. Todino

Property Location: 18 Rose Point Avenue, Wareham MA

Mailing Address (if different): 137 Waverley Ave. Watertown, MA 02472

Map: 78-2 Lot: 157 Total Amount of Sewer Bill: \$ 313.00

Amount requested to be abated: \$ 200.00 Account number: 792290

Reason for request: I have owned this cottage since May 1981. It is a seasonal cottage with

usage on weekends only from Memorial Day - Labor Day. Cottage not rented & has weekend
use only as we work full time & only have Friday - Sunday for use. Cottage
does not have heat in winter & therefore not connected to Town water, it has
well water & pump removed. LABOR DAY. No Yes

(such as letter from Water Dept. as to when they shut off water/removed meter and/or letter from Board of Health giving a date as to when they deemed the property uninhabitable, when fire/flood or other disaster destroyed property)

Signature of Applicant: Ralph Todino

Date: 9/12/19

Phone Number: 617-924-7703



WAREHAM WATER POLLUTION CONTROL FACILITY

6 Tony's Lane
Wareham, MA 02571
Telephone (508) 295-6144
Fax (508) 291-0155
TTY (800)439-2370

MEMORANDUM

DATE: October 1, 2019

TO: Board of Sewer Commissioners

FROM: Guy Campinha, Director, Wareham Water Pollution Control

SUBJECT: Abatement Recommendation – Sewer Usage Billing

Acct #737234
Map 46, Lot 45
29 Warr Avenue
Maureen A, Gregory

I am recommending the 2nd half of FY19 in the amount of \$313.00 as well as the 1st half of FY20 in the amount of \$313.00 for a total of \$626.00 be abated, as we can only go back one full year, and the account going forward be reduced from 2 EDU to 1 EDU per: enclose letter from the Town of Wareham Building Commissioner

Attachment
cc: file BOSC
cc: file WPCF

GC/am



WAREHAM WATER POLLUTION CONTROL FACILITY

6 Tony's Lane
Wareham, MA 02571
Telephone (508) 295-6144
Fax (508) 291-0155
TTY 1-800-439-2370

Application for Abatement

Name of Applicant: Maureen A. Gregory

Property Location: 29 Warr Avenue, Wareham, MA

Mailing Address (if different): _____

Map: 46 Lot: 45 Total Amount of Sewer Bill: \$ 1970.¹³

Amount requested to be abated: \$ 2,384- Account number: 737234

Reason for request: our home was improperly designated as a
multi unit back to I believe 2015 and we've been charged
double annually since. I would appreciate the funds
being returned to me. All paperwork and required letters
Documentation supporting request is attached? Yes _____ No previously submitted
(such as letter from Water Dept. as to when they shut off water/removed meter and/or letter from
Board of Health giving a date as to when they deemed the property uninhabitable, when
fire/flood or other disaster destroyed property)

Signature of Applicant: Maureen Gregory

Date: 9-17-19

Phone Number: 781-291-0788

September 20, 2019

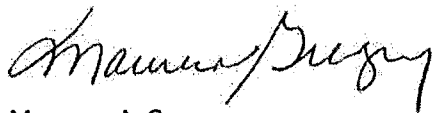
Mr. Guy Campinha
Wareham Water Pollution Control Facility
6 Tony's Lane
Wareham, MA 02571

Dear Mr. Campinha:

Attached please find my application for Abatement. I have updated the one previously submitted in 2017 as the amount has changed. I am asking that my current bill due showing for an amount of \$1970.13 be abated as it includes charges which we now agree are not applicable to my home.

Over the past 5 or 6 years I have been charged double what I should have been charged due to my home being inaccurately considered a multi-unit home. I am asking that the WWPCF and the Town of Wareham review what has been billed and paid by me over this time and abate and refund any and all overpayments. If my number are correct, this would be an abatement of \$1970.13 and a refund of \$2,384. If your review identifies any discrepancies I would appreciate you sharing that information with me. I have submitted all information requested of me in this process including a property description from both the Assessor and Building Commissioner in previous correspondence.

Please keep me informed as we move forward and thank you in advance for your assistance at this time in resolving this matter.



Maureen A. Gregory
29 Warr Avenue
Wareham, MA 02571
781-291-0788

SECTION 2. Section 1A of chapter 40A of the General Laws, as so appearing, is hereby amended by inserting after the introductory paragraph the following 7 definitions:-

“Accessory dwelling unit”, a self-contained housing unit, inclusive of sleeping, cooking and sanitary facilities on the same lot as a principal dwelling, subject to otherwise applicable dimensional and parking requirements, that: (i) maintains a separate entrance, either directly from the outside or through an entry hall or corridor shared with the principal dwelling sufficient to meet the requirements of the state building code for safe egress; (ii) is not larger in floor area than 1/2 the floor area of the principal dwelling or 900 square feet, whichever is smaller; and (iii) is subject to such additional restrictions as may be imposed by a municipality, including but not limited to additional size restrictions, owner-occupancy requirements, and restrictions or prohibitions on short-term rental of accessory dwelling units.

Fw: 29 warr ave.

Guy Campinha

Mon 10/21/2019 11:40 AM

To: Anita Mendes <amendes@wareham.ma.us>;

Guy Campinha Sr.
Director WPCF
Wareham, Ma 02571
508-295-6144 EXT 4001
cell# 508-958-4290

From: David Morris
Sent: Tuesday, September 10, 2019 12:40 PM
To: Guy Campinha
Subject: Re: 29 warr ave.

Yes, Guy, that is my interpretation.

David Morris
Town of Wareham
Building Commissioner
dmorris@wareham.ma.us
508-291-3100

From: Guy Campinha
Sent: Tuesday, September 10, 2019 9:19 AM
To: David Morris
Subject: Re: 29 warr ave.

Good Morning Dave,
The question for sewer is does it meet the attached.
I think you are telling me in your inspection it does not. Could you please clarify.
We charge 1 dwelling unit per single family home and 1 edu for accessory dwellings meeting the attached.
Thank you

Guy Campinha Sr.

Director WPCF
Wareham, Ma 02571
508-295-6144 EXT 4001
cell# 508-958-4290

From: David Morris
Sent: Monday, September 09, 2019 4:23 PM
To: Guy Campinha
Cc: Jenna Deane; Jacqui Nichols; m.gregory713@gmail.com
Subject: 29 warr ave.

Hello Guy,
Please be advised that the current use for the above address is Single Family with an In-Law. The assessor's office has recently done an inspection to confirm this status and I am in full agreement. Please feel free to call with any questions.
Thank you,

David Morris
Town of Wareham
Building Commissioner
dmorris@wareham.ma.us
508-291-3100



TOWN OF WAREHAM
Board of Sewer Commissioners

Contract Policy

All contracts will be recommended to the Board of Sewer Commissioners. Upon approval of Town Counsel, final contracts will be presented to Town Accountant for verification of funds then to the Chief Procurement Officer. This document will serve as the contract tracking form for date of presentation.

GHD Inc

The Old Salt Works Road and Terry Lane Pump Stations Generator Replacement

Board of Sewer Commissioners: Date _____

_____ Chairperson
James R. Giberti

_____ Commissioner
Sandra L. Slavin

_____ Commissioner
Malcolm R. White

_____ Commissioner
Donna M. Bronk

_____ Commissioner
Peter G. Dunlop

Town Counsel Date _____

_____ Town Counsel

Town Accountant Date _____

_____ Town Accountant

Procurement Officer Date _____

_____ Procurement Officer



**AGREEMENT
BETWEEN**

Wareham WPCF

AND

GHD INC.

FOR

SERVICES

FOR

**THE OLD SALT WORKS ROAD AND TERRY LANE PUMP STATION GENERATOR
REPLACEMENT**

October 2019



GHD – USA
Services Agreement

General Details:

| | |
|---|---|
| Project Name | THE OLD SALT WORKS ROAD AND TERRY LANE PUMP STATION GENERATOR REPLACEMENT |
| The Project is | Replacement of generators at the Old Salt Works Road and Terry Lane sewer pump stations. |
| “OWNER” and the “Client” means | Wareham WPCF |
| OWNER's Designated Representative(s) is | Guy Campinha Wareham WPCF 6 Tony's Lane Wareham, MA 02571 508-291-6144 gcampinha@wareham.ma.us |
| OWNER's Authorized Signer is | Derek Sullivan, Town Administrator Town of Wareham |
| “GHD” means | GHD Inc. 1545 Iyannough Road Hyannis, MA 02601-8145 774-470-1630 |
| GHD's Designated Representative is | Russell Kleekamp, Project Manager russell.kleekamp@ghd.com 774-470-1647 |
| GHD's Authorized Signer is | Marc R. Drainville, P.E., Vice President marc.drainville@ghd.com 774-470-1630 |

Services:

Design, Bidding, and Construction Phase Services as further defined in Exhibit A.

Fees:

Lump sum fee of Eighty One Thousand Five Hundred Dollars (\$81,000.00) as further defined in Exhibit A.

Period of Service:

Effective Date of this Agreement: as per last date on signature page
 All phase(s) will be completed within 365 calendar days of authorization, as further defined in Exhibit A.

Additional Exhibits:

Exhibit A – Scope of Services
 Exhibit B – Budget
 Exhibit C – Relevant Sections of Town of Wareham Bid #19-IFB-002



GHD – USA
Services Agreement

Duly authorized representatives to execute this Agreement:

On Behalf of GHD:

Marc R. Drainville
 (Signature)

Marc R. Drainville, P.E.,
 BCEE
 (Print name)

Vice President
 (Title)

10/18/19
 (Date)

On Behalf of OWNER:

 (Signature)

Derek Sullivan
 (Print name)

Town Administrator
 (Title)

 (Date)

Additional Signatures, if required:

 (Signature)

 (Print name)

 (Title)

 (Date)

 (Signature)

 (Print name)

 (Title)

 (Date)



GHD – USA Services Agreement

Services

1. The standard of care for any professional services performed or furnished by GHD under this Agreement will be the care and skill ordinarily used by members of the profession practicing under similar circumstances at the same time and in the same locality. GHD makes no warranties, express or implied, under this Agreement or otherwise, in connection with GHD's services.
2. Any questions in relation to the services being provided by GHD can be directed to the Job Manager.
3. **Change of Scope.** The scope of Services set forth in this Agreement is based on facts known at the time of execution of this Agreement. For some projects involving conceptual or process development services, scope may not be fully definable during initial phases. As the Project progresses, facts discovered may indicate that scope should be changed. GHD will promptly inform OWNER in writing of such situations, and if the facts discovered constitute a material change in project assumptions, the parties shall renegotiate the amended scope of this Agreement as necessary.
4. **Discovery of Hazardous Materials.** OWNER warrants that it has made and will continue to make full and accurate written disclosure to GHD as to any hazardous or toxic materials, pollutants, or contaminants which OWNER knows or has reason to believe exist at the site(s). Discovery of any hazardous or toxic materials, pollutants, or contaminants on or in the site which are not described in written job specifications delivered to GHD prior to GHD'S commitment to perform the work, will constitute a materially different site condition entitling GHD to an equitable adjustment in the contract price or time for performance, or both, as appropriate, or in the alternative, GHD shall, at its sole discretion, have the right to immediately terminate its performance of this Agreement.

Information and Documents

5. OWNER shall designate and advise GHD of a person to act as OWNER's Representative who has complete authority with respect to the services. OWNER shall do the following in a timely manner:
 - (a) Provide all criteria and full Information as to OWNER's requirements for the Project;
 - (b) Assist GHD by providing all available Information pertinent to the Project (e.g. previous reports), all of which GHD may use and rely upon in performing the services; GHD will not be obligated to verify the accuracy of OWNER provided Information unless verification is included in GHD's scope of work;
 - (c) Arrange for site and property access as required for GHD to perform the services;
 - (d) Give prompt written notice to GHD of any event that affects the scope or timing of GHD's services.

Payment

6. **Method of Payment.** OWNER shall pay GHD the Fees as defined under the Exhibits.

Additionally, OWNER will pay for any additional approved services GHD undertakes, and any Liability, cost or expense GHD incurs, if:

- (a) The general approved scope, schedule, extent or character of Services is changed materially. In this event, the amount of compensation provided for herein shall be subject to equitable adjustment in accordance with paragraph 3, Change of Scope;
 - (b) Any Information OWNER (or OWNER's employees, agents or contractors) provides to GHD is not complete and accurate;
 - (c) Part or all of the Services are delayed or suspended (other than as a result of GHD's breach of the Agreement);
 - (d) OWNER fails to pay an amount due under the Agreement; or
 - (e) OWNER ends the Agreement before GHD has completed the services.
7. GHD will submit monthly invoices for services rendered and payment will be made within 30 days of OWNER's receipt of such invoices. If OWNER fails to make any payment due GHD for Services within 30 days after receipt of GHD's invoice, then:
 - (a) Interest a 1% per month will be charged on all past due amounts; and
 - (b) GHD may, after giving seven (7) days written notice to OWNER, suspend Services under this Agreement until OWNER has paid in full all amounts due for Services, and other related charges. OWNER waives any and all claims against GHD for any such suspension.

When the Fees are on the basis of a lump sum, fixed fee, or a percentage of construction cost for the Project, GHD's invoices will be based upon GHD's estimate of the proportion of the services actually completed at the date of the invoice. If OWNER objects to any invoice submitted by GHD, OWNER shall so advise GHD in writing giving reasons therefore within fourteen (14) days of receipt of such invoice. If no such objection is made, the invoice will be considered acceptable by OWNER.

Insurance

8. GHD shall maintain continuously during the life of this Agreement the following insurance requirements:
 - (a) Workers' Compensation Insurance with statutory limits and Employer's Liability of \$1,000,000 per occurrence;
 - (b) Commercial General Liability Insurance, comprehensive form, with combined single limits of \$1,000,000 in any one occurrence or in the aggregate, applicable to bodily injury, sickness, or death and for loss of or damage to property;
 - (c) Automobile Liability Insurance covering all owned, non-owned, or hired vehicles used by GHD with limits of \$1,000,000 combined single limits applicable to bodily injury, sickness, or death of any one person per occurrence and for loss of or damage to property;



GHD – USA Services Agreement

- (d) Professional Liability Insurance in the amount of \$1,000,000 covering claims, damages and Liability arising out of, or resulting from, GHD's professional negligence in performance of the services.
9. The policies under 8. (b) and 8. (c) above shall: (1) name OWNER as an Additional Insured; (2) be endorsed to be primary and non-contributory to any other insurance maintained by OWNER.
10. GHD will provide OWNER with satisfactory evidence of the above insurances upon request.

Total Liability for Damages

11. (a) ~~Notwithstanding any other provisions of this Agreement, but subject to clause 11(b) below, to the maximum extent permitted by law, the total aggregate Liability of GHD to OWNER and/or anyone claiming by, through, or under OWNER shall be limited to the amounts set out in clause 8 for the relevant insurance policy or, if no insurance is applicable, to \$1,000,000.~~
- (b) ~~With respect to professional errors or omissions only, notwithstanding any other provision of this Agreement, to the maximum extent permitted by law, the total aggregate Liability of GHD to OWNER and/or anyone claiming by, through, or under OWNER, for all Liabilities arising out of, or resulting from the professional errors or omissions of GHD in the performance or non-performance of the services shall be limited to \$1,000,000, or the total Fees actually paid to GHD under this Agreement, whichever is greater.~~
- (c) ~~Neither party to this Agreement shall be liable to the other for any indirect, special, incidental, punitive or consequential damages, including but not limited to loss of profits, arising in connection with the performance or non-performance of this Agreement.~~

Intellectual Property

12. All Documents prepared or furnished by GHD are instruments of service in respect of the Project and GHD shall retain an ownership and property interest therein whether or not the Project is completed. Any reuse without written verification or adaptation by GHD for the specific purpose intended will be at OWNER's sole risk and without Liability or legal exposure to GHD, and OWNER shall indemnify and hold harmless GHD from all claims, damages, losses and expenses including attorneys' fees arising out of or resulting therefrom.

Confidentiality, documents and information

13. GHD agrees to keep confidential and not disclose to any person or entity, other than GHD's employees and subcontractors, without the prior written consent of OWNER (which consent shall not be unreasonably withheld, delayed, or conditioned), all data and Information not previously known to GHD and marked "CONFIDENTIAL" by OWNER and provided in the course of GHD's performance of the services. This provision shall not apply to data or Information which is in the public domain or which was acquired by GHD independently from third parties not under any obligation to OWNER to keep

such data and Information confidential or which GHD is required to disclose under any law, rule, regulation, ordinance, code, standard, or court order.

Termination

14. (a) The obligation to provide further services under this Agreement may be terminated by either party upon thirty days' written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. Upon such termination, OWNER shall pay to GHD all amounts owing to GHD under the Agreement, for all work performed up to the effective date of termination, plus reasonable termination costs.
- (b) This Agreement may be terminated for convenience by OWNER upon thirty days prior written notice to GHD. In the event of termination for convenience by OWNER, GHD shall be entitled to receive all amounts owing to GHD under the Agreement, for all work performed up to the effective date of termination, plus reasonable termination costs.

Indemnification

15. ~~Subject to the provisions of section 11 of this Agreement, to the maximum extent permitted by law, each party shall indemnify and hold harmless (but shall have no duty to defend) the other party, its appointed and elected officials, partners, officers, directors, employees, and agents, from and against any and all Liabilities arising from the negligent or wrongful acts, errors, or omissions, or breach of contract, by a party; but only to the extent of an indemnifying party's relative degree of fault when considered together with the fault of all parties, including indemnified parties and any parties immune from suit.~~
16. ~~In furtherance of these obligations, and only with respect to OWNER, GHD waives any immunity it may have or limitation on the amount or type of damages imposed under any industrial insurance, worker's compensation, disability, employee benefit, or similar laws. GHD ACKNOWLEDGES THAT THIS WAIVER OF IMMUNITY WAS MUTUALLY NEGOTIATED.~~

Dispute Resolution

17. Both parties agree in good faith to attempt to resolve amicably, without litigation, any dispute arising out of or relating to this Agreement or the work to be performed hereunder. Following notification of a dispute, the parties shall have five (5) business days from the date of notification to begin negotiations and fifteen (15) business days from the notification date to complete negotiations, unless otherwise agreed in writing. In the event that any dispute cannot be resolved through direct discussions, the parties agree to endeavor to settle the dispute by mediation. The parties shall have forty-five (45) calendar days within which to commence the first mediation session following the conclusion of their good faith negotiations or expiration of the time within which to negotiate. Either party may make a written demand for mediation, which demand shall specify the facts of the dispute. The matter shall be submitted to a mediator mutually selected by the parties. The mediator shall hear the matter and provide an informal nonbinding opinion and advice in order to help



GHD – USA Services Agreement

resolve the dispute. The mediator's fee shall be shared equally by the parties. If the dispute is not resolved through mediation, the matter may be submitted to the judicial system, in the courts of general jurisdiction where the Project is located, in which event all litigation and collection expenses, witness fees, court costs and attorneys' fees shall be paid to the prevailing party.

Independent Contractor

18. GHD shall act as an independent consultant and not as an agent or employee of OWNER, and will be solely responsible for the control and direct performance of the services provided by its employees and agents.

Assignment

19. This Agreement may be assigned by either party with the prior written consent of the other party.

Health and Safety

20. GHD shall only be responsible for the activities of its own employees and agents on the Project site with respect to safety.

Compliance with Laws, Permits and Licenses

21. This Agreement shall be governed by the law of the state where the majority of GHD's work for OWNER will be undertaken. GHD shall perform its Services in accordance with applicable laws, regulations, ordinances, permits, licenses, and other rules.

Severability

22. The parties agree that, in the event one or more of the provisions of this Agreement should be declared void or illegal, the remaining provisions shall not be affected and shall continue in full force and effect.

No Third-Party Beneficiaries

23. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by OWNER or GHD to any third party. All duties and responsibilities undertaken under this Agreement shall be for the sole and exclusive benefit of OWNER and GHD. There are no intended third-party beneficiaries. Notwithstanding the foregoing, should a court find a third party to be a beneficiary of this Agreement, it is the intent of the parties that the judicially created third-party beneficiary be bound by and subject to all of the terms and conditions of this Agreement.

Notification Period

24. Any applicable Statute of Limitation shall be deemed to commence running on the date which the claimant knew, or should have known, of the facts giving rise to their claims, but in no event later than the date of the final invoice for GHD's services under this Agreement. To the maximum extent permitted by law, as a condition precedent to commencing a judicial proceeding, a party shall give written notice of their claims, including all amounts claimed, and the factual basis for their claims, to the other party within two (2) years of when the claimant knew, or should have known, of the facts giving rise to their claims, but in no event later than two (2) years from the date of GHD's final invoice for Services under this Agreement.

Complete Agreement

25. This Agreement represents the entire understanding between the OWNER and GHD, and supersedes all prior negotiations, representations, understandings or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both the parties hereto.
26. All notices or other written communications required under this Agreement shall be given personally upon delivery or by certified mail, return receipt requested, upon deposit in a U.S. Mail receptacle to the appropriate parties at the addresses shown on the signature page.
27. This Agreement applies to all services undertaken by GHD for OWNER relative to this Project, including any services undertaken prior to the Effective Date hereof.

Definitions

28. Unless the context otherwise requires, in the Agreement:
 - "Additional Insured" means that the interests of the client will be noted on the relevant policy, but does not mean that the client is an "Insured" under that policy.
 - "Agreement" means the agreement executed by the parties in connection with the services, including these terms and exhibits.
 - "Designated Representative" means specific individuals who act as Engineer's and OWNER's representatives with respect to the services to be performed or furnished by Engineer and responsibilities of OWNER under this Agreement. Such an individual shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of the respective party whom the individual represents.
 - "Document" or "Documents" includes a written or electronic document.
 - "Fees" means the amount set out in the agreement details including disbursements.
 - "Information" includes documents and information provided pertinent to the project.
 - "Liability" or "Liabilities" means any and all liabilities for actions (whether sounding in tort, contract (express or implied), warranty (express or implied), statutory liability, strict liability, or otherwise); claims (including, but not limited to, claims for bodily injury, death, property damage, (including bodily injury, death, or property damage to employees) or arising under environmental laws); and costs or damages of every nature without limitation (including, but not limited to, reasonable attorneys' fees and costs of defense).
 - "Project" means the project(s) that the services relate to.
 - "Services" means the services set out in the agreement details (or otherwise the services GHD undertakes).
 - "OWNER" means the person(s) set out in the agreement details (and if more than one person, "OWNER" means each of those persons severally and all of them jointly).

CERTIFICATIONS

Statements below shall be submitted with each Bid or Proposal and shall be duly dated and signed with an original signature and all other information, or, the Bid or Proposal will be rejected.

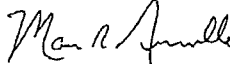
In witness whereof, the undersigned certifies, under the pains and penalties of perjury that:

1. **STATE TAXES PAID:** Pursuant to M.G.L. Chapter 62C, s. 49A, the undersigned certifies that, to the best of my knowledge and belief, have complied with all the laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting of child support.
2. **CERTIFICATE OF NON-COLLUSION:** M.G.L. C. 30, s. 39M and/or C. 30B, s.10: Any person submitting a bid or proposal for the procurement or disposal of supplies or services to any governmental body shall certify in writing, on the bid or proposal, as follows: The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity, or group of individuals.
3. **PUBLIC CONTRACTS - DEBARMENT:** M.G.L. C. 550, Acts of 1991: The undersigned certifies that the said "person" is not presently debarred from doing public construction work in the Commonwealth of Massachusetts under the provisions of C. 29, s. 29F, or any other applicable debarment provision of any other Chapter of the General Laws, or any Rule or Regulation promulgated thereunder. Additionally, the undersigned is not presently debarred by any Agency of the Federal Government.
4. **HEALTH & SAFETY ON PUBLIC CONSTRUCTION PROJECTS OVER \$10,000.00:** Chapter 306 of the Acts of 2004: The undersigned certifies that the firm is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (2) that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the U.S. OSHA that is at least 10 hours in duration at the time that the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and (3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the U.S. OSHA that is at least 10 hours in duration.
5. **COMPLIANCE:**
The undersigned is in compliance with all of the provisions, and shall remain in full compliance with the provisions for the life of any Contract resulting from this solicitation. That the bidder is qualified to perform any such Contract and possesses, or shall obtain, all requisite licenses and/or permits to complete performance; shall maintain all unemployment, workers' compensation, professional and personal liability insurance policies sufficient to

cover its performance under any such Contract; and shall comply with relevant prevailing wage rates and employment laws. To the best of its knowledge and belief has paid all local taxes, tax titles, utilities, motor vehicle excise taxes, water and wastewater bills in MA as required by Law.

Print Name: **GHD Inc.**

Circle Corporation Partnership Individual

Authorized Signature: 

Print Name: **Marc Drainville**

Title of Person Signing Bid or Proposal: **Principal**

Date: **10/18/19**

Company Federal ID # or Social Security #: **98-0425935**

State of Incorporation: **Massachusetts**

Approval of a Contract, or other Agreement, will not be granted unless this form is signed and fully complete.

This is **EXHIBIT A**, consisting of three pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated October 2019.

Engineer's Services

Engineer shall provide Basic Services as set forth below.

PART 1 – BASIC SERVICES

A1.01 Specific Project Data

Title: Design, Bidding, and Construction Phase Services for the replacement of emergency generators at the Old Salt Works Road and Terry Lane sewer pump stations (Stations).

Description: Develop 100% design plans to remove existing generators from inside the Stations and install new generators outside of the Stations on elevated platforms at elevations consistent with the Risk and Vulnerability Assessment developed by GHD Inc. dated January 2016. Engineer will also provide bidding and construction phase services for the installation of the new generators as defined below.

A. **Kick-Off Meeting/Information Gathering.** Meet with the Owner to review project goals and milestones. The following major design elements will be considered for this project:

- a. Sizing: Old Salt Works Road and Terry Lane shall be rated at 42 kW. Sizing information and site-specific requirements will be based on a previous Town Bid #19-IFB-002 (see Exhibit C). Recommended modifications to specifications will be provided by Engineer to the Owner during the design phase.
- b. Enclosure: A sound-attenuating, drop-over, weatherproof enclosure suitable for residential surroundings shall be provided for this project.
- c. Elevated Structure: Design flood elevations for generator platforms shall be 23.6 for Old Salt Works Road and 17.2 for Terry Lane.

B. **Site Survey.** Perform topographic survey (including spot elevations and surface features) at both stations suitable for the generator replacement design. Survey will include resource delineation and required property line information based on assessors maps only. Deliver AutoCAD and PDF files for the completed survey; provide one (1) full-size hard copy displaying the area. Siting for the outdoor generator at the Old Salt Works Road Pump Station shall be on the southern side (left side facing building) or western side (rear of building) of the building. Adequate room exists within the Town layout on all sides of the Terry Lane Station.

C. **Development of 50% Percent Design Drawings, Specifications, and Engineers probable estimate of cost.** Develop 50% design for structural, electrical, and civil components of the projects. Design drawings are expected to total up to ten sheets including site plans for each station, electrical (including one-line and generator schematic diagram and fuel tank plans for both Terry Lane and Old Salt Works Stations), structural diagrams, layouts and details along with cover sheet, general notes, legend and other construction details.

Specification front end will be based on the recently bid specifications for the installation of the Bypass Structures at Hynes Field and Cohasset Narrows Pump Stations completed by GHD in January of 2019. Specifications shall be bid under the requirements of Massachusetts General Law Chapter 149.

Coordinate accordingly with utility companies and provide basis of design memorandum.

- D. **Progress Meeting No. 1.** Meet with Owner to review 50% plans, specifications, and Engineers probable estimate of cost.
- E. **Development of 90% Percent Design Drawings, Specifications, and Cost Estimate.** Based on comments received by the Owner, revise drawings, specifications, and cost estimate to the 90% level.
- F. **Progress Meeting No. 2.** Meet with Owner to review 90% plans, specifications, and Engineers probable estimate of cost.

G. **Development of 100% Percent Design Drawings, Specifications, and Cost Estimate.** Based on comments received by the Owner, revise drawings, specifications, and cost estimate to the 100% level suitable for bidding.

H. **Bidding Assistance.** Provide bidding assistance to include:

- a. Advertising in the Central Register.
- b. Preparation and attendance at a pre-bid conference.
- c. Prepare addenda.
- d. Review bids and develop canvass.
- e. Provide recommendation of bidder.

I. **Construction Phase Services.** Provide construction phase services to include the following:

- a. Develop Notice of Award and Notice to Proceed.
- b. Develop conformed documents.
- c. Review and process up to two (2) Owner requested change orders.
- d. Review and answer request for information.
- e. Review shop drawings.
- f. Perform substantial and final completion inspections.

PART 2 - OWNER RESPONSIBILITIES

A2.01 Services Required by OWNER

- A. Access to the Stations when requested.
- B. Design and sizing criteria used to develop Bid #19-IFB-002.
- C. Coordinate bidding notice with the Wareham Week, Town Hall, COMMBUYS, and Central Register. Provide payment for any publication fees associated.
- D. Distribute any addenda.
- E. Coordination with Wareham Conservation Commission.

PART 3 - OUT OF SCOPE WORK

A3.01 The following is considered out of scope work:

- A. Detailed property line research.
- B. Sizing of generators.
- C. Permitting of any kind.
- D. Resident part time representation (clerk of the works) during construction.

PART 4 – PAYMENTS TO ENGINEER FOR SERVICES

OWNER shall pay ENGINEER for Basic Services set forth in Exhibit A as follows:

- A. OWNER shall pay ENGINEER a Lump Sum amount of Sixty Nine Thousand Five Hundred Dollars (\$69,500.00).
- B. ENGINEER may alter the distribution of compensation between individual phases noted herein to be consistent with services actually rendered, but shall not exceed the total Lump Sum amount unless approved in writing by the OWNER.
- C. The Lump Sum includes compensation for ENGINEER's services and services of ENGINEER's Consultants, if any. Appropriate amounts have been incorporated in the Lump Sum to account for labor, overhead, profit, and reimbursable expenses.
- D. ENGINEER shall submit invoices on a monthly basis.

PART 5 - PERIOD OF SERVICE

The compensation amount stipulated above is conditioned for all project tasks to be completed within 365 days of authorization.

Exhibit B
Proposed Budget for
Old Salt Works Road and Terry Avenue Pump Station Generator Replacement
Town of Wareham, Massachusetts

| | Project Director | | | | | | Admin | | Total Hours | GHD Labor Cost | Expenses/Outside Tech Services | Total |
|---|-----------------------------|-------------------------------------|---|--|--|-----------|------------|-----------------|----------------|-----------------|--------------------------------|-------|
| | Marc Drainville, P.E., BCEE | Project Manager Russell Kleekamp | Technical Manager Thomas Devine (Electrical) Mike Dickun, P.E. (Structural) | Project Engineers Craig Curtin, EIT / Kyle Lantzy | CAD Drafting James Fosdick / Matt Haldmen | Admin | | | | | | |
| 1. Kick-Off Meeting | 0 | 1 | 5 | 0 | 0 | 1 | 7 | \$1,112 | \$30 | \$1,142 | | |
| 2. Site Survey | 0 | 2 | 0 | 0 | 0 | 0 | 2 | \$400 | \$5,280 | \$5,680 | | |
| 3. Develop 50% Design Drawings, Specifications, Cost Estimate | 1 | 7 | 40 | 40 | 32 | 4 | 124 | \$18,573 | \$688 | \$19,261 | | |
| 4. Progress Meeting #1 | 0 | 1 | 2 | 0 | 0 | 1 | 4 | \$602 | \$30 | \$632 | | |
| 5. Develop 90% Design Drawings, Specifications, Cost Estimate | 1 | 7 | 40 | 72 | 24 | 4 | 148 | \$20,933 | \$30 | \$20,963 | | |
| 6. Progress Meeting #2 | 0 | 1 | 2 | 0 | 0 | 1 | 4 | \$602 | \$30 | \$632 | | |
| 7. Development of 100% Bid Documents | 1 | 7 | 24 | 30 | 24 | 0 | 86 | \$13,135 | \$29 | \$13,164 | | |
| 8. Bidding Assistance | 0 | 16 | 0 | 8 | 0 | 1 | 25 | \$4,182 | \$29 | \$4,211 | | |
| 9. Construction Administration | 1 | 40 | 24 | 20 | 0 | 0 | 85 | \$14,625 | \$688 | \$15,313 | | |
| Total | 4 | 82 | 137 | 170 | 80 | 12 | 485 | \$74,164 | \$6,836 | \$81,000 | | |

2. Old Saltworks Road Ramp Station

- **Equipment - Generator**

- **Equipment**

- The generator set shall be a Kohler model 40REOZK or equivalent with a 4P7BX alternator. It shall provide 52.50 kVA and 42.00 kW when operating at 277/480 volts, 60-Hz, 0.80 power factor. The generator set shall be capable of a 130°C Standby rating while operating in an ambient condition of less than or equal to 77 °F and a maximum elevation of 500 ft above sea level. The standby rating shall be available for the duration of the outage.

- Engine
 - The minimum 3.4 liter displacement engine shall deliver a minimum of 67 HP at a governed engine speed of 1800 rpm, and shall be equipped with the following:
 - Mechanical governor capable of 0.5% steady-state frequency regulation
 - 12-volt positive-engagement solenoid shift-starting motor
 - 90-ampere automatic battery charging alternator with a solid-state voltage regulation
 - Positive displacement, full-pressure lubrication oil pump, cartridge oil filters, dipstick, and oil drain
 - Dry-type replaceable air cleaner elements for normal applications
 - Engine-driven or electric fuel-transfer pump including fuel filter and electric solenoid fuel shutoff valve capable of lifting fuel
 - The turbocharged engine shall be fueled by diesel
 - The engine shall have a minimum of 4 cylinders and be liquid-cooled
 - The engine shall be EPA certified tier 3 from the factory
 - The generator must accept rated load in one-step.

- Cooling System
 - The engine shall be liquid-cooled by a closed loop, unit mounted radiator rated to operate the generator set at full load at an ambient temperature of 50 degrees C (122 degrees F). The radiator fan and other rotating engine parts shall be guarded against accidental contact.

- Fuel oil storage
 - Double Wall Secondary Containment Sub-base Fuel Tank
 - The generator set shall be supplied with a sub-base fuel tank of sufficient capacity to hold 279 gallons of diesel fuel.
 - The sub-base fuel system shall be listed under UL 142, subsection entitled Special Purpose Tanks EFVT category, and will bear their mark of UL Approval according to their particular classification.
 - The above ground steel secondary containment rectangular tank for use as a sub base for diesel generators is manufactured and intended to be installed in accordance with the Flammable and Combustible Liquids Code—NFPA 30, the Standard for Installation and Use of Stationary Combustible Engine and Gas Turbines—NFPA 37, and Emergency and Standby Power Systems—NFPA 110.
 - The primary tank shall be rectangular in shape and constructed in clam shell fashion to ensure maximum structural integrity and allow the use of a full throat fillet weld.
 - Steel Channel Support System. Reinforced steel box channel for generator support, with a load rating of 5,000 lbs. per generator mounting hole location. Full height gussets at either end of channel and at generator mounting holes shall be utilized.
 - Exterior Finish. The sub-base tank exterior finish shall be Power Armor Plus™, a polyurea-textured rubberized coating.
 - Normal venting shall be sized in accordance with the American Petroleum Institute Standard No 2000, Venting Atmospheric and Low Pressure Storage Tanks not less than 1-1/4" (3 cm.) nominal inside diameter.
 - The emergency vent opening shall be sized to accommodate the total capacity of both normal and emergency venting and shall be not less than that derived from NFPA 30, table 2-8, and based on the wetted surface area of the tank. The wetted area of the tank shall be calculated on the basis of 100 percent of the primary tank. The vent is to be spring-pressure operated: opening pressure is 0.5/psig and full opening pressure is 2.5 psig. The

emergency relief vent is to be sized to accommodate the total venting capacity of both normal and emergency vents.

- There shall be a 2" NPT opening within the primary tank and lockable manual fill cap.
- A direct reading, UL listed, magnetic fuel level gauge with a hermetically sealed, vacuum tested dial, to eliminate fogging, shall be provided.
- A float switch for remote or local annunciation of a (50% standard) low fuel level condition shall be supplied.
- Fuel fill option – The fuel fill is equipped with a 5 gallon above ground fill/spill container that contains fuel over spills that may occur during fill-ups and will automatic shut off fuel to the tank when the tank becomes 95% full.
- Controller
 - Advanced Power Management 402 (APM402) Generator Set Controller
 - The generator set controller shall be a microprocessor-based control system that will provide automatic starting, system monitoring, and protection. The controller system shall also provide local monitoring and remote monitoring. The control system shall be capable of PC based updating of all necessary parameters, firmware, and software.
 - The controller shall be mounted on the generator set and shall have integral vibration isolation. The controller shall be prototype and reliability tested to ensure operation in the conditions encountered.
- Codes and Standards
 - The generator set controller shall meet NFPA 110 Level 1 requirements and shall include an integral alarm horn as required by NFPA.
 - The controller shall meet NFPA 99 and NEC requirements.
 - The controller shall be UL 508 listed.
 - Applicability
 - The controller shall be a standard offering in the manufacturer's controller product line.
 - The controller shall support 12-volt and 24volt starting systems.
 - The controller's environmental specification shall be: -40°C to 70°C operating temperature range and 5-95% humidity, non-condensing.
 - The controller shall mount on the generator or remotely within 40 feet with viewable access.
 - Controller Buttons, Display and Components
 - The generator set controller shall include the following features and functions:
 - Push button Master Control buttons. The buttons shall be tactile-feel membrane with an indicator light to initiate the following functions:
 - Run Mode: When in the run mode the generator set shall start as directed by the operator.
 - Off/Reset Mode: When in the Off/Reset mode the generator set shall stop, the reset shall reset all faults, allowing for the restarting of the generator set after a shutdown.
 - Auto Mode: When in Auto the mode the generator set shall be ready to accept a signal from a remote device.
 - Emergency Stop Switch. The remote stop switch shall be red in color with a "mushroom" type head. Depressing the stop button will immediately stop the generator set and lockout the generator set for

- any automatic remote starting.
- Push Button/Rotary Selector dial. This dial shall be used for selection of all Menus and sub-menus. Rotating the dial moves you through the menus, pushing the dial selects the menu and function/features in that menu. Pushing the button selects the feature/function and sub-menus.
- Digital Display. The digital display shall be alphanumeric, with 2 lines of data and approximately 24 characters. The display shall have back lighting for ease of operator use in high and low light conditions. The display shall display status of all faults and warnings. The display shall also display any engine faults. While the generator set is running, the display shall scroll all-important information across the screen for ease of operator use. The scroll can be stopped by pushing the rotary dial. The display shall fall asleep when the generator set is not running and will wake-up when the generator set starts, or the rotary dial is depressed.
- Fault Light. The controller shall have an annunciator fault light that glows red for faults and yellow for warnings. These faults and warnings shall be displayed in the digital display. The fault light will also glow yellow when not in AUTO.
- Alarm Horn. The controller shall provide an alarm horn that sounds when any faults or warnings are present. The horn shall also sound when the controller is not in the AUTO mode.
- Alarm Silence/Lamp Test Button. When this button is depressed, it shall test all controller lamps. This button will also silence the alarm horn when the unit is not AUTO.
- USB Connection. The controller shall have a USB connection on the face of the controller. This connection shall allow for updating of all software and firmware. This port shall also allow for all servicing of generator set parameters, fault diagnostics and viewing of all controller information via use a laptop computer.
- Dedicated user inputs. The controller shall have dedicated inputs for remote emergency stop switch, remote 2-wire start for transfer switch and auxiliary shutdown.
- The controller shall have auto resettable circuit protection integral on the circuit board.
- System Controller Monitoring and Status Features and Functions
- The generator controller shall display and monitor the following engine and alternator functions and allow adjustments of certain parameters at the controller:
 - Overview menu
 - Active shutdowns and warnings shall be displayed if present and without the need of operator interface
 - Engine runtime with total hours
 - Average line to line voltage
 - Coolant temperature
 - Fuel level or pressure
 - Oil pressure
 - Battery voltage
 - Software version

- Frequency
- Average current
- Engine metering menu.
- Engine speed
- Oil pressure
- Coolant temperature
- Battery voltage
- Generator metering menu.
- Total power in VA
- Total power in W
- Rated power % used
- Voltage L-L and L-N for all phases
- Current L1, L2, L3
- Frequency
- Generator set information.
- Generator set model number
- Generator set serial number
- Controller set number
- Generator set run time.
- Engine run time total hours
- Engine loaded total hours
- Number of engine starts
- Total energy in kW
- Generator set system
- System voltage
- System frequency 50/60Hz
- System phase, single/three phase
- Power rating kW
- Amperage rating
- Power type standby/prime
- Measurement units, metric/English units adjustable
- Alarm silence, always or auto only
- Generator set calibration, the following are adjustable at the controller.
- Voltage L-L and L-N all phases
- Current L1, L2, L3
- Reset all calibrations
- Voltage regulation, +/-0.5% regulation, the following is adjustable at the controller.
- Voltage Adjustable +/- 10%
- Digital and Analog Inputs and outputs
- Displays settings and status
- Event Log
- Stores event history, up to 1000 events
- Controller Engine control features and functions
- Automatic restart - the controller has automatic restart feature that initiates the start routine and re-crank after a failed start attempt.
- Cyclic cranking - the controller shall have programmable cyclic cranking
- control for an optional engine starting aid.

- The control system shall include time delays for engine start and cool down.
- The control system shall interface with the engine ECM and display engine fault codes and warnings. The ECM shall also include sender failure monitoring to help distinguish between failed senders and actual failure conditions.
- The controller shall monitor and display engine governor functions with include steady state and transient frequency monitoring
- Controller Alternator control features and functions
- Integrated hybrid voltage regulator. The system shall have integral microprocessor-based voltage regulator system that provides +/- 5% voltage regulation, no-load to full load with three phase sensing. The system is prototype tested and control variation of voltage to frequency. The voltage regulator shall be adjustable at the controller with maximum +/- 10% adjustable of nominal voltage.
- AC output voltage regulator adjustment. The system shall allow for adjustment of the integral voltage regulator with maximum of +/- 10% adjustment of the system voltage.
- Alternator thermal overload protection. The system shall have integral alternator overload and short circuit protection matched to each alternator for the particular voltage and phase configuration.
- Power metering. The controller digitally displays power metering of kW and kVA.
- Other control features and functions
- Event logging. The controller keeps a record of up to 1000 events, for warning and shutdown faults. This fault information becomes a stored record of systems events and can be reset.
- Historical data logging. The controller total number of generator set successful start shall be recorded and displayed.
- Programmable access. The control system shall include a USB port that gives service technicians the ability to provide software and firmware upgrades. The system shall also be capable of allowing setting of all critical parameters using the service software and a laptop computer. All parameters and setting should be capable to being stored on a laptop for future upgrades of printing for analysis.
- Generator Set Warning, Shutdown Alarm and Status
- The generator set shall have alarms and status indication lamps that show non-automatic status and warning and shutdown conditions. The controller shall indicate with a warning lamp and or alarm and on the digital display screen any shutdown, warning or engine fault condition that exists in the generator set system. The following alarms and shutdowns shall exist as a minimum:
 - Engine functions
 - Critical high fuel level (alarm)
 - ECM communication loss (shutdown)
 - ECM diagnostics (alarm & shutdown)
 - Engine overspeed (shutdown)
 - Engine start aid active
 - Engine under speed (shutdown)
 - Fuel tank leak (alarm & shutdown)

- High DC battery voltage (alarm)
- High coolant temperature (alarm & shutdown)
- High fuel level (alarm)
- Low DC battery voltage (alarm)
- Low coolant level (shutdown)
- Low coolant temperature (alarm)
- Low cranking voltage (alarm)
- Low engine oil level (alarm & shutdown)
- Low fuel level (alarm & shutdown)
- Low fuel pressure (alarm)
- Low oil pressure (alarm & shutdown)
- No coolant temperature signal (shutdown)
- No oil pressure signal (shutdown)
- Overcrank (shutdown)
- Speed sensor fault (alarm)
- Generator functions
- AC sensing loss over & under current (alarm & shutdown)
- Alternator protection (shutdown)
- Ground fault input (alarm)
- kW overload (shutdown)
- Locked rotor (shutdown)
- Over-frequency (shutdown)
- Over AC voltage (shutdown)
- Under-frequency (shutdown)
- Under AC voltage (shutdown)
- Emergency stop (shutdown)
- Other General functions
- Battery charger fault (alarm)
- Common fault (shutdown)
- Common warning (alarm)
- Master switch not in auto (alarm)
- Generator running
- Input/output fault (alarm)
- The generator set controller shall also be capable of meeting all necessary NFPA 110 level 1 requirements that include several of the above along with; EPS supplying load, Master switch “not in auto”, and contacts for local and remote common alarm.
- Communications
 - If the generator set engine is equipped with an ECM (engine control module), the controller shall communicate with the ECM for control, monitoring, diagnosis, and meet SAE J1939 standards
 - Kohler proprietary RBUS communication shall be available.
 - A RBUS shall be able to monitor and alter parameters and start or stop a generator.
 - The controller shall have the capability to communicate to a personal computer (IBM or compatible) and appropriate application software
 - A variety of connections shall be available based on requirements:
 - A single control connection to a PC via USB
 - Internet connection via Ethernet

- Generator and transfer switch controls shall be equipped with communications modules capable of connecting to the same communication network.
- Generator Overcurrent and Fault Protection
 - The generator shall be provided with a factory installed, 80% rated line circuit breaker rated at 100.00 amperes that is UL489 listed. Line circuit breakers shall be sized for the rated ampacity of the loads served by the breaker per the NEC.
 - The circuit breaker(s) shall incorporate a thermo-magnetic trip unit.
 - Load side lugs shall be provided from the factory. The line circuit breaker shall include auxiliary contacts, shunt trip, undervoltage trip, alarm switch, and overcurrent switch functionality. Load side breaker connections made at the factory shall be separated from field connections.
- Alternator
 - The alternator shall be salient-pole, brushless, 2/3-pitch, with 4 bus bar provision for external connections, self-ventilated, with drip-proof construction and amortisseur rotor windings, and skewed for smooth voltage waveform. The ratings shall meet the NEMA standard (MG1-32.40) temperature rise limits. The insulation shall be class H per UL1446 and the varnish shall be a vacuum pressure impregnated, fungus resistant epoxy. Temperature rise of the rotor and stator shall be limited to 130°C Standby. The PMG based excitation system shall be of brushless construction controlled by a digital, three phase sensing, solid-state, voltage regulator. The AVR shall be capable of proper operation under severe nonlinear loads and provide individual adjustments for voltage range, stability and volts-per-hertz operations. The AVR shall be protected from the environment by conformal coating. The waveform harmonic distortion shall not exceed 5% total RMS measured line-to-line at full rated load. The TIF factor shall not exceed 50.
 - The alternator shall have a maintenance-free bearing, designed for 40000 hour B10 life. The alternator shall be directly connected to the flywheel housing with a semi-flexible coupling between the rotor and the flywheel.
 - The generator shall be inherently capable of sustaining at least 300% of rated current for at least 10 seconds under a 3-phase symmetrical short circuit without the addition of separate current-support devices.
 - Motor starting performance and voltage dip determinations shall be based on the complete generator set. The generator set shall be capable of supplying 180.00 LRKVA for starting motor loads with a maximum instantaneous voltage dip of 35%, as measured by a digital RMS transient recorder in accordance with IEEE Standard 115. Motor starting performance and voltage dip determination that does not account for all components affecting total voltage dip, i.e., engine, alternator, voltage regulator, and governor will not be acceptable. As such, the generator set shall be prototype tested to optimize and determine performance as a generator set system.
- Vibration Isolation
 - Vibration isolators shall be provided between the engine-alternator and heavy-duty steel base.
- Accessories
 - The generator set shall be supplied with a common failure relay to provide means of signaling fault and/or shutdown conditions.
 - The common failure relay shall remotely signal auxiliary faults, emergency stop, high engine temperature, low oil pressure, overcrank, and over speed via one single-pole, double-throw relay with 10 amps at 120 VAC contacts.
 - The relay contacts shall be gold flashed to allow use of low current draw devices (100ma @ 28VDC min.).

- Once energized the relay shall remain latched until the system is reset by the main controller switch.
- The generator set shall be provided with a run relay which shall provide a three-pole, double-throw relay with 10-amp/ 250 VAC contacts to indicate that the generator is running. The run relay dry contacts can be used for energizing or de-energizing customer devices while the generator is running (e.g. louvers, indicator lamps, etc.)
- Battery rack and battery cables capable of holding the manufacturer's recommended batteries shall be supplied.
- The generator set shall be supplied with a 10-ampere automatic float/equalize battery charger capable of charging both lead-acid and ni-cad type batteries, with the following features:
 - Automatic 3-stage float to equalization charge
 - Voltage regulation of 1% from no to full load over 10% AC input line voltage variations
 - Battery charging current Ammeter and battery voltage voltmeter with 5% full-scale accuracy
 - LED lamp for power ON indication
 - Current limited during engine cranking, short circuit, and reverse polarity conditions
 - Temperature compensated for ambient temperatures for -40°C to 60°C
 - Alarm circuit board featuring alarm contacts for low battery voltage, high battery voltage, and battery charger malfunction.
 - UL 1012 Listed
 - CSA Certified
 - The generator set shall be supplied with a 2 Input/5 Output Module kit to provide two additional analog inputs and 5 additional dry contact outputs. The analog inputs can be used for analog or digital input functions. They can be set up for 0-5VDC, ±3VDC resistive or relay contact sensor devices. The dry contact outputs shall be arranged as two 120VAC or 28VDC, 10A form C contacts and three 28VDC, 2A form C contacts. Input and output functions are user defined.
 - A radiator duct flange to provide a convenient connection to duct work for the radiator discharge air shall be included.
 - Supply flexible fuel lines to provide a flexible connection between the engine fuel fittings and the fuel supply tank piping and for the fuel return lines from the injector pump per engine manufacturer's recommendations. Flex line shall have a protective steel wire braid to protect the hose from abrasion.
 - The engine exhaust silencer shall be temperature and rust resistant, and rated for critical applications. The silencer will reduce total engine exhaust noise by 25-35 db(A).
 - The exhaust piping shall be gas proof, seamless, stainless steel, flexible exhaust bellows and includes the flex exhaust tube and the mounting hardware.
- Quantity 1 - 3 Year semi-annual Maintenance Contract
- **Equipment – Transfer Switch**
- **Equipment**
 - Furnish and install an automatic transfer switches system(s) with 3-Pole / 4-Wire, Solid Neutral, 104 Amps, 480V/60Hz. Each automatic transfer shall consist of an inherently double throw power transfer switch mechanism and a microprocessor controller to provide automatic operation. All transfer switches and controllers shall be the products of the same manufacturer.

- **Manufacturer**
 - Automatic transfer switches shall be Kohler or equivalent Any Breaker Rated - Standard Transition (KCS)/KCS-AMTA-0104S. Any alternate shall be submitted for approval to the consulting engineer at least 10 days prior to bid date. Alternate bids shall include a line-by-line clarification of the specification marked with "D" for deviation; "E" for exception, and "C" for comply.
- **Construction**
 - The transfer switch shall be electrically operated and mechanically held with double throw construction, and operated by a momentarily energized solenoid-driven mechanism.
 - All transfer switch sizes shall use only one type of main operator for ease of maintenance and commonality of parts.
 - The switch shall be positively locked and unaffected by momentarily outages, so that contact pressure is maintained at a constant value and contact temperature rise is minimized for maximum reliability and operating life.
 - All main contacts shall be silver composition. Switches rated 600 amperes and above shall have segmented, blow-on construction for high withstand and close-on capability and be protected by separate arcing contacts.
 - Inspection of all contacts shall be possible from the front of the switch without disassembly of operating linkages and without disconnection of power conductors. Switches rated 800 amperes and higher shall have front removable and replaceable contacts. All stationary and moveable contacts shall be replaceable without removing power conductors and/or bus bars.
 - Designs utilizing components of molded-case circuit breakers, contactors, or parts thereof, which are not intended for continuous duty, repetitive switching or transfer between two active power sources, are not acceptable.
 - For two and three pole switches, where neutral conductors are to be solidly connected as shown on the plans, a neutral conductor plate with fully rated AL-CU pressure connectors shall be provided.
 - For four pole switches with a switching neutral, where neutral conductors must be switched as shown on the plans, the contactor shall be provided with fully rated switched neutral transfer contacts. Overlapping neutral contacts may be used as an alternative.
- **Enclosure**
 - The ATS shall be furnished in a NEMA 1 enclosure.
 - All standard door mounted switches and indicating LEDs shall be integrated into a flush-mounted, interface membrane or equivalent in the enclosure door for easy viewing & replacement. The panel shall be capable of having a manual locking feature to allow the user to lockout all membrane mounted control switches to prevent unauthorized tampering. This cover shall be mounted with hinges and have a latch that may be padlocked. The membrane panel shall be suitable for mounting by others when furnished on open type units.
- **Operation**
- **Operators**
- **Controls**
 - A four line, 20 character LCD display and dynamic 4 button keypad shall be an integral part of the controller for viewing all available data and setting desired operational parameters. Operational parameters shall also be available for viewing and control through the communications interface port or USB. The

following parameters shall only be adjustable via a password protected programming on the controller:

- Nominal line voltage and frequency
- Single or three phase sensing
- Operating parameter protection
 - Transfer operating mode configuration (Standard transition, Programmed transition, or Closed transition)
 - Voltage and Frequency
 - Voltage (all phases) and frequency on both the normal and emergency sources shall be continuously monitored. Voltage on both normal and emergency sources and frequency on the emergency sources shall be adjustable with the following pickup, dropout, and trip setting capabilities (values shown as % of nominal unless otherwise specified):

| Parameter | Dropout/Trip | Pickup/Reset |
|-------------------|--------------|--------------------|
| Under voltage | 75 to 98% | 85 to 100% |
| Over voltage | 06 to 135% | 95 to 100% of trip |
| Under frequency | 95 to 99% | 80 to 95% |
| Over frequency | 01 to 115% | 105 to 120% |
| Voltage unbalance | 5 to 20% | 3 to 18% |
 - Repetitive accuracy of all settings shall be within $\pm 0.5\%$ over an operating temperature range of -20°C to 70°C .
 - An adjustable dropout time for transient voltage and frequency excursions shall be provided. The time delays shall be 0.1 to 9.9 seconds for voltage and .1 to 15 seconds for frequency.
 - Voltage and frequency settings shall be field adjustable in 1% increments either locally with the display and keypad, remotely via the communications interface port or USB.
 - The controller shall be capable of sensing the phase rotation of both the normal and emergency sources. The source shall be considered unacceptable if the phase rotation is not the preferred rotation selected (ABC or BAC). Unacceptable phase rotation shall be indicated on the LCD; the service required LED and the annunciation through the communication protocol and dry contacts. In addition, the phase rotation sensing shall be capable of being disabled, if required.
 - The controller shall be capable of detecting a single phasing condition of a source, even though a voltage may be regenerated by the load. This condition is a loss of phase and shall be considered a failed source.
 - Source status screens shall be provided for both normal & emergency to provide digital readout of voltage on all 3 phases (phase to phase and phase to neutral), frequency, and phase rotation.
- Time Delays
 - An adjustable time delay of 0 to 6 seconds shall be provided to override momentary normal source outages and delay all transfer and engine starting signals. Capability shall be provided to extend this time delay to 60 minutes by providing an external 12 or 24 VDC power supply.
 - A time delay shall be provided on transfer to the emergency source, adjustable from 0 to 60 minutes, for controlled timing of transfer of loads to emergency.
 - A time delay shall be provided on re-transfer to normal. The time delays shall be adjustable from 0 to 60 minutes. Time delay shall be automatically bypassed if the emergency source fails and the normal source is acceptable.
 - A time delay shall be provided on shut down of engine generator for cool down, adjustable from 0 to 60 minutes.
 - A time delay activated output signal shall also be provided to drive external relay(s) for selective load disconnect and reconnect control. The controller shall be capable of controlling a maximum of 9 individual output time delays to step

loads on after a transfer occurs. Each output may be individually programmed for their own time delay of up to 60 minutes. Each sequence shall be independently programmed for transferring from normal to emergency and transferring from emergency to normal.

- All time delays shall be adjustable in 1 second increments.
- All time delays shall be adjustable by using the display and keypad, with a remote device connected to the communications interface port or USB.
- Each time delay shall be identified and a dynamic countdown shall be shown on the display. Active time delays can be viewed with a remote device connected to the communications interface port or USB.
- Additional Features
 - The controller shall have 3 levels of security. Level 1 shall allow monitoring of settings and parameters only. The Level 1 shall be capable of restricted with the use of a lockable cover. Level 2 shall allow test functions to be performed and Level 3 shall allow setting of all parameters.
 - The display shall provide for the test functions, allowed through password security. The test function shall be load, no load or auto test. The auto test function shall request an elapsed time for test. At the completion of this time delay the test shall be automatically ended and a retransfer sequence shall commence. All loaded tests shall be immediately ended and retransfer shall occur if the emergency source fails and the normal source is acceptable.
 - A contact closure shall be provided for a low-voltage engine start signal. The start signal shall prevent dry cranking of the engine by requiring the generator set to reach proper output, and run for the duration of the cool down setting, regardless of whether the normal source restores before the load is transferred.
 - Auxiliary contacts shall be provided consisting of a minimum of two contacts, closed when the ATS is connected to the normal source and two contacts closed, when the ATS is connected to the emergency source.
 - LED indicating lights shall be provided; one to indicate when the ATS is connected to the normal source (green) and one to indicate when the ATS is connected to the emergency source (red).
 - LED indicating lights shall be provided and energized by controller outputs. The lights shall provide true source availability of the normal (green) and emergency sources (red), as determined by the voltage, frequency and phase rotation sensing trip and reset settings for each source.
 - A membrane switch shall be provided on the membrane panel to test all indicating lights and display when pressed.
 - Provide the ability to select "commit/no commit to transfer" to determine whether the load should be transferred to the emergency generator if the normal source restores before the generator is ready to accept the load.
 - Terminals shall be provided for a remote contact which opens to signal the ATS to transfer to emergency and for remote contacts which closes to inhibit transfer to emergency and/or retransfer to normal. Both of these inhibit signals can be activated through the keypad, communications interface port or USB. A "not-in-auto" LED shall indicate anytime the controller is inhibiting transfer from occurring.
 - An in-phase monitor shall be a standard feature in the controller. The monitor shall control transfer so that motor load inrush currents do not exceed normal starting currents, and shall not require external control of power sources. The in-phase monitor shall be specifically designed for and be the product of the ATS manufacturer. The in-phase monitor shall be capable of being enabled or disabled from the user interface, communications interface port or USB.
 - A time based load control feature shall be available to allow the prioritized addition and removal of loads based during transfer. This feature may be enabled for either or both sources. The user shall be able to control up to nine loads with

independent timing sequences for pre and post transfer delays in either direction of transfer.

- The controller shall provide 2 inputs for external controls that can be programmed from the following values:
- Common fault, Remote test, Inhibit transfer, Low battery voltage, Peak shave, Time delay bypass, Load shed forced to OFF position (Programmed transition only)
- The controller shall provide two form "C" contact outputs rated for up to 12A @ 240VAC or 2A @ 480VAC that can be programmed from the following values:
- Aux switch open, Transfer switch aux contact fault, Alarm silenced, Alarm active, I/O communication loss, Contactor position, Exercise active, Test mode active, Fail to transfer, Fail to acquire standby source, Source available, Phase rotation error, Not in automatic mode, Common alarm, In phase monitor sync, Load bank control active, Load control active, Maintenance mode active, Non-emergency transfer, Fail to open/close, Loss of phase, Over/under voltage, Over/under frequency, Voltage unbalance, Start signal, Peak shave active, Preferred source supplying load, Standby source supplying load
- The controller shall be capable of expanding the number of inputs and outputs with additional modules.
- Optional input/output modules shall be furnished which mount on the inside of the enclosure to facilitate ease of connections.
- Engine Exerciser - The controller shall provide an internal engine exerciser. The engine exerciser shall allow the user to program up to 21 different exercise routines based on a calendar mode. For each routine, the user shall be able to:
 - Enable or disable the routine
 - Enable or disable transfer of the load during routine.
 - Set the start time, time of day, day of week, week of month (1st, 2nd, 3rd, 4th, alternate or every)
 - Set the duration of the run.
 - At the end of the specified loaded exercise duration the switch shall transfer the load back to normal and run the generator for the specified cool down period. All loaded exercises shall be immediately ended and retransfer shall occur if the standby source fails. The next exercise period shall be displayed on the main screen with the type of exercise, time and date. The type of exercise and the time remaining shall be display when the exercise is active. It shall be possible of ending the exercise event with a single button push.
- Date and time - The date shall automatically adjust for leap year and the time shall have the capability of automatically adjusting for daylight saving and standard times.
- System Status - The controller shall have a default display the following on:
 - System status
 - Date, time and type of the next exercise event
 - Average voltage of the preferred and standby sources
 - Scrolling through the displays shall indicate the following:
 - Line to line and line to neutral voltages for both sources
 - Frequency of each source
 - Load current for each phase
 - Single or three phase operation
 - Type of transition
 - Preferred source
 - Commit or no commit modes of operation
 - Source/source mode
 - In phase monitor enable/disable
 - Phase rotation
 - Date and time

- Controllers that require multiple screens to determine system status or display "coded" system status messages, which must be explained by references in the operator's manual, are not permissible.
- Self-Diagnostics - The controller shall contain a diagnostic screen for the purpose of detecting system errors. This screen shall provide information on the status input signals to the controller which may be preventing load transfer commands from being completed.
- Communications Interface - The controller shall be capable of interfacing, through a standard communications with a network of transfer switches and generators. It shall be able to be connected via an RS-485 serial communication (up to 4000 ft. direct connect or multi-drop configuration). This module shall allow for seamless integration of existing or new communication transfer devices and generators.
- The transfer switch shall also be able to interface to 3rd party applications using Modbus RTU open standard protocols utilizing Modbus register maps. Proprietary protocols shall not be acceptable.
- The controller shall contain a USB port for use with a software diagnostic application available to factory authorized personnel for downloading the controller's parameters and settings; exercise event schedules; maintenance records and event history. The application can also adjust parameters on the controller.
- Data Logging - The controller shall have the ability to log data and to maintain the last 2000 events, even in the event of total power loss. The following events shall be time and date stamped and maintained in a non-volatile memory. The controller shall be able to display up to the last 99 events. The remaining events shall be accessible via the communications interface port or USB.
- Event Logging
 - Data, date and time indication of any event
 - Statistical Data
 - Total number of transfers*
 - Total number of fail to transfers*
 - Total number of transfers due to preferred source failure*
 - Total number of minutes of operation*
 - Total number of minutes in the standby source*
 - Total number of minutes not in the preferred source*
 - Normal to emergency transfer time
 - Emergency to normal transfer time
 - System start date
 - Last maintenance date
 - * The statistical data shall be held in two registers. One register shall contain data since start up and the second register shall contain data from the last maintenance reset.
 - External DC Power Supply - An optional provision shall be available to connect up to two external 12/24 VDC power supply to allow the LCD and the door mounted control indicators to remain functional when both power sources are dead for extended periods of time. This module shall contain reverse battery connection indication and circuit protection.
- Quantity 1 - 3 year Semi-annual Maintenance contract

3) Alternating Pump Station

- Equipment - Generator
- Equipment

- The generator set shall be a Kohler model 40REOZK or equivalent with a 4P7BX alternator. It shall provide 52.50 kVA and 42.00 kW when operating at 277/480 volts, 60 Hz, 0.80 power factor. The generator set shall be capable of a 130°C Standby rating while operating in an ambient condition of less than or equal to 77 °F and a maximum elevation of 500 ft above sea level. The standby rating shall be available for the duration of the outage.
- Engine
 - The minimum 3.4 liter displacement engine shall deliver a minimum of 67 HP at a governed engine speed of 1800 rpm, and shall be equipped with the following:
 - Mechanical governor capable of 0.5% steady-state frequency regulation
 - 12-volt positive-engagement solenoid shift-starting motor
 - 90-ampere automatic battery charging alternator with a solid-state voltage regulation
 - Positive displacement, full-pressure lubrication oil pump, cartridge oil filters, dipstick, and oil drain
 - Dry-type replaceable air cleaner elements for normal applications
 - Engine-driven or electric fuel-transfer pump including fuel filter and electric solenoid fuel shutoff valve capable of lifting fuel
 - The turbocharged engine shall be fueled by diesel
 - The engine shall have a minimum of 4 cylinders and be liquid-cooled
 - The engine shall be EPA certified tier 3 from the factory
 - The generator must accept rated load in one-step.
- Cooling System
 - The engine shall be liquid-cooled by a closed loop, unit mounted radiator rated to operate the generator set at full load at an ambient temperature of 50 degrees C (122 degrees F). The radiator fan and other rotating engine parts shall be guarded against accidental contact.
- Fuel oil storage
 - Double Wall Secondary Containment Sub-base Fuel Tank
 - The generator set shall be supplied with a sub-base fuel tank of sufficient capacity to hold 279 gallons of diesel fuel.
 - The sub-base fuel system shall be listed under UL 142, subsection entitled Special Purpose Tanks EFVT category, and will bear their mark of UL Approval according to their particular classification.
 - The above ground steel secondary containment rectangular tank for use as a sub base for diesel generators is manufactured and intended to be installed in accordance with the Flammable and Combustible Liquids Code—NFPA 30, the Standard for Installation and Use of Stationary Combustible Engine and Gas Turbines—NFPA 37, and Emergency and Standby Power Systems—NFPA 110.
 - The primary tank shall be rectangular in shape and constructed in clam shell fashion to ensure maximum structural integrity and allow the use of a full throat fillet weld.
 - Steel Channel Support System. Reinforced steel box channel for generator support, with a load rating of 5,000 lbs. per generator mounting hole location. Full height gussets at either end of channel and at generator mounting holes shall be utilized.
 - Exterior Finish. The sub-base tank exterior finish shall be Power Armor Plus™, a polyurea-textured rubberized coating.
 - Normal venting shall be sized in accordance with the American Petroleum Institute Standard No 2000, Venting Atmospheric and Low Pressure Storage Tanks not less than 1-1/4" (3 cm.) nominal inside diameter.

- The emergency vent opening shall be sized to accommodate the total capacity of both normal and emergency venting and shall be not less than that derived from NFPA 30, table 2-8, and based on the wetted surface area of the tank. The wetted area of the tank shall be calculated on the basis of 100 percent of the primary tank. The vent is to be spring-pressure operated: opening pressure is 0.5/psig and full opening pressure is 2.5 psig. The emergency relief vent is to be sized to accommodate the total venting capacity of both normal and emergency vents.
- There shall be a 2" NPT opening within the primary tank and lockable manual fill cap.
- A direct reading, UL listed, magnetic fuel level gauge with a hermetically sealed, vacuum tested dial, to eliminate fogging, shall be provided.
- A float switch for remote or local annunciation of a (50% standard) low fuel level condition shall be supplied.
- Fuel fill option – The fuel fill is equipped with a 5 gallon above ground fill/spill container that contains fuel over spills that may occur during fill-ups and will automatic shut off fuel to the tank when the tank becomes 95% full.
- Controller
 - Advanced Power Management 402 (APM402) Generator Set Controller
 - The generator set controller shall be a microprocessor-based control system that will provide automatic starting, system monitoring, and protection. The controller system shall also provide local monitoring and remote monitoring. The control system shall be capable of PC based updating of all necessary parameters, firmware, and software.
 - The controller shall be mounted on the generator set and shall have integral vibration isolation. The controller shall be prototype and reliability tested to ensure operation in the conditions encountered.
- Codes and Standards
 - The generator set controller shall meet NFPA 110 Level 1 requirements and shall include an integral alarm horn as required by NFPA.
 - The controller shall meet NFPA 99 and NEC requirements.
 - The controller shall be UL 508 listed.
 - Applicability
 - The controller shall be a standard offering in the manufacturer's controller product line.
 - The controller shall support 12-volt and 24volt starting systems.
 - The controller's environmental specification shall be: -40°C to 70°C operating temperature range and 5-95% humidity, non-condensing.
 - The controller shall mount on the generator or remotely within 40 feet with viewable access.
 - Controller Buttons, Display and Components
 - The generator set controller shall include the following features and functions:
 - Push button Master Control buttons. The buttons shall be tactile-feel membrane with an indicator light to initiate the following functions:
 - Run Mode: When in the run mode the generator set shall start as directed by the operator.
 - Off/Reset Mode: When in the Off/Reset mode the generator set shall stop, the reset shall reset all faults, allowing for the restarting of the

- generator set after a shutdown.
- Auto Mode: When in Auto the mode the generator set shall be ready to accept a signal from a remote device.
- Emergency Stop Switch. The remote stop switch shall be red in color with a "mushroom" type head. Depressing the stop button will immediately stop the generator set and lockout the generator set for any automatic remote starting.
- Push Button/Rotary Selector dial. This dial shall be used for selection of all Menus and sub-menus. Rotating the dial moves you through the menus, pushing the dial selects the menu and function/features in that menu. Pushing the button selects the feature/function and sub-menus.
- Digital Display. The digital display shall be alphanumeric, with 2 lines of data and approximately 24 characters. The display shall have back lighting for ease of operator use in high and low light conditions. The display shall display status of all faults and warnings. The display shall also display any engine faults. While the generator set is running, the display shall scroll all-important information across the screen for ease of operator use. The scroll can be stopped by pushing the rotary dial. The display shall fall asleep when the generator set is not running and will wake-up when the generator set starts, or the rotary dial is depressed.
- Fault Light. The controller shall have an annunciator fault light that glows red for faults and yellow for warnings. These faults and warnings shall be displayed in the digital display. The fault light will also glow yellow when not in AUTO.
- Alarm Horn. The controller shall provide an alarm horn that sounds when any faults or warnings are present. The horn shall also sound when the controller is not in the AUTO mode.
- Alarm Silence/Lamp Test Button. When this button is depressed, it shall test all controller lamps. This button will also silence the alarm horn when the unit is not AUTO.
- USB Connection. The controller shall have a USB connection on the face of the controller. This connection shall allow for updating of all software and firmware. This port shall also allow for all servicing of generator set parameters, fault diagnostics and viewing of all controller information via use a laptop computer.
- Dedicated user inputs. The controller shall have dedicated inputs for remote emergency stop switch, remote 2-wire star for transfer switch and auxiliary shutdown.
- The controller shall have auto resettable circuit protection integral on the circuit board.
- System Controller Monitoring and Status Features and Functions
- The generator controller shall display and monitor the following engine and alternator functions and allow adjustments of certain parameters at the controller:
- Overview menu
 - Active shutdowns and warnings shall be displayed if present and without the need of operator interface
 - Engine runtime with total hours

- Average line to line voltage
- Coolant temperature
- Fuel level or pressure
- Oil pressure
- Battery voltage
- Software version
- Frequency
- Average current
- Engine metering menu.
- Engine speed
- Oil pressure
- Coolant temperature
- Battery voltage
- Generator metering menu.
- Total power in VA
- Total power in W
- Rated power % used
- Voltage L-L and L-N for all phases
- Current L1, L2, L3
- Frequency
- Generator set information.
- Generator set model number
- Generator set serial number
- Controller set number
- Generator set run time.
- Engine run time total hours
- Engine loaded total hours
- Number of engine starts
- Total energy in kW
- Generator set system
- System voltage
- System frequency 50/60Hz
- System phase, single/three phase
- Power rating kW
- Amperage rating
- Power type standby/prime
- Measurement units, metric/English units adjustable
- Alarm silence, always or auto only
- Generator set calibration, the following are adjustable at the controller.
 - Voltage L-L and L-N all phases
 - Current L1, L2, L3
 - Reset all calibrations
 - Voltage regulation, +/-0.5% regulation, the following is adjustable at the controller.
 - Voltage Adjustable +/- 10%
- Digital and Analog Inputs and outputs
- Displays settings and status
- Event Log
- Stores event history, up to 1000 events

- Controller Engine control features and functions
- Automatic restart - the controller has automatic restart feature that initiates the start routine and re-crank after a failed start attempt.
- Cyclic cranking - the controller shall have programmable cyclic cranking
 - control for an optional engine starting aid.
- The control system shall include time delays for engine start and cool down.
- The control system shall interface with the engine ECM and display engine fault codes and warnings. The ECM shall also include sender failure monitoring to help distinguish between failed senders and actual failure conditions.
- The controller shall monitor and display engine governor functions with include steady state and transient frequency monitoring
- Controller Alternator control features and functions
- Integrated hybrid voltage regulator. The system shall have integral microprocessor-based voltage regulator system that provides +/- 5% voltage regulation, no-load to full load with three phase sensing. The system is prototype tested and control variation of voltage to frequency. The voltage regulator shall be adjustable at the controller with maximum +/- 10% adjustable of nominal voltage.
- AC output voltage regulator adjustment. The system shall allow for adjustment of the integral voltage regulator with maximum of +/- 10% adjustment of the system voltage.
- Alternator thermal overload protection. The system shall have integral alternator overload and short circuit protection matched to each alternator for the particular voltage and phase configuration.
- Power metering. The controller digitally displays power metering of kW and kVA.
- Other control features and functions
- Event logging. The controller keeps a record of up to 1000 events, for warning and shutdown faults. This fault information becomes a stored record of systems events and can be reset.
- Historical data logging. The controller total number of generator set successful start shall be recorded and displayed.
- Programmable access. The control system shall include a USB port that gives service technicians the ability to provide software and firmware upgrades. The system shall also be capable of allowing setting of all critical parameters using the service software and a laptop computer. All parameters and setting should be capable to being stored on a laptop for future upgrades of printing for analysis.
- Generator Set Warning, Shutdown Alarm and Status
- The generator set shall have alarms and status indication lamps that show non-automatic status and warning and shutdown conditions. The controller shall indicate with a warning lamp and or alarm and on the digital display screen any shutdown, warning or engine fault condition that exists in the generator set system. The following alarms and shutdowns shall exist as a minimum:
 - Engine functions
 - Critical high fuel level (alarm)

- ECM communication loss (shutdown)
- ECM diagnostics (alarm & shutdown)
- Engine overspeed (shutdown)
- Engine start aid active
- Engine under speed (shutdown)
- Fuel tank leak (alarm & shutdown)
- High DC battery voltage (alarm)
- High coolant temperature (alarm & shutdown)
- High fuel level (alarm)
- Low DC battery voltage (alarm)
- Low coolant level (shutdown)
- Low coolant temperature (alarm)
- Low cranking voltage (alarm)
- Low engine oil level (alarm & shutdown)
- Low fuel level (alarm & shutdown)
- Low fuel pressure (alarm)
- Low oil pressure (alarm & shutdown)
- No coolant temperature signal (shutdown)
- No oil pressure signal (shutdown)
- Overcrank (shutdown)
- Speed sensor fault (alarm)
- Generator functions
- AC sensing loss over & under current (alarm & shutdown)
- Alternator protection (shutdown)
- Ground fault input (alarm)
- kW overload (shutdown)
- Locked rotor (shutdown)
- Over-frequency (shutdown)
- Over AC voltage (shutdown)
- Under-frequency (shutdown)
- Under AC voltage (shutdown)
- Emergency stop (shutdown)
- Other General functions
- Battery charger fault (alarm)
- Common fault (shutdown)
- Common warning (alarm)
- Master switch not in auto (alarm)
- Generator running
- Input/output fault (alarm)
- The generator set controller shall also be capable of meeting all necessary NFPA 110 level 1 requirements that include several of the above along with; EPS supplying load, Master switch "not in auto", and contacts for local and remote common alarm.
- Communications
 - If the generator set engine is equipped with an ECM (engine control module), the controller shall communicate with the ECM for control, monitoring, diagnosis, and meet SAE J1939 standards
 - Kohler proprietary RBUS communication shall be available.
 - A RBUS shall be able to monitor and alter parameters and start or stop a generator.

- The controller shall have the capability to communicate to a personal computer (IBM or compatible) and appropriate application software
- A variety of connections shall be available based on requirements:
- A single control connection to a PC via USB
- Internet connection via Ethernet
- Generator and transfer switch controls shall be equipped with communications modules capable of connecting to the same communication network.
- Generator Overcurrent and Fault Protection
 - The generator shall be provided with a factory installed, 80% rated line circuit breaker rated at 100.00 amperes that is UL489 listed. Line circuit breakers shall be sized for the rated ampacity of the loads served by the breaker per the NEC.
 - The circuit breaker(s) shall incorporate a thermo-magnetic trip unit.
 - Load side lugs shall be provided from the factory. The line circuit breaker shall include auxiliary contacts, shunt trip, undervoltage trip, alarm switch, and overcurrent switch functionality. Load side breaker connections made at the factory shall be separated from field connections.
- Alternator
 - The alternator shall be salient-pole, brushless, 2/3-pitch, with 4 bus bar provision for external connections, self-ventilated, with drip-proof construction and amortisseur rotor windings, and skewed for smooth voltage waveform. The ratings shall meet the NEMA standard (MG1-32.40) temperature rise limits. The insulation shall be class H per UL1446 and the varnish shall be a vacuum pressure impregnated, fungus resistant epoxy. Temperature rise of the rotor and stator shall be limited to 130°C Standby. The PMG based excitation system shall be of brushless construction controlled by a digital, three phase sensing, solid-state, voltage regulator. The AVR shall be capable of proper operation under severe nonlinear loads and provide individual adjustments for voltage range, stability and volts-per-hertz operations. The AVR shall be protected from the environment by conformal coating. The waveform harmonic distortion shall not exceed 5% total RMS measured line-to-line at full rated load. The TIF factor shall not exceed 50.
 - The alternator shall have a maintenance-free bearing, designed for 40000 hour B10 life. The alternator shall be directly connected to the flywheel housing with a semi-flexible coupling between the rotor and the flywheel.
 - The generator shall be inherently capable of sustaining at least 300% of rated current for at least 10 seconds under a 3-phase symmetrical short circuit without the addition of separate current-support devices.
 - Motor starting performance and voltage dip determinations shall be based on the complete generator set. The generator set shall be capable of supplying 180.00 LRKVA for starting motor loads with a maximum instantaneous voltage dip of 35%, as measured by a digital RMS transient recorder in accordance with IEEE Standard 115. Motor starting performance and voltage dip determination that does not account for all components affecting total voltage dip, i.e., engine, alternator, voltage regulator, and governor will not be acceptable. As such, the generator set shall be prototype tested to optimize and determine performance as a generator set system.
- Vibration Isolation
 - Vibration isolators shall be provided between the engine-alternator and heavy-duty steel base.
- Accessories

- The generator set shall be supplied with a common failure relay to provide means of signaling fault and/or shutdown conditions.
 - The common failure relay shall remotely signal auxiliary faults, emergency stop, high engine temperature, low oil pressure, overcrank, and over speed via one single-pole, double-throw relay with 10 amps at 120 VAC contacts.
 - The relay contacts shall be gold flashed to allow use of low current draw devices (100ma @ 28VDC min.).
 - Once energized the relay shall remain latched until the system is reset by the main controller switch.
 - The generator set shall be provided with a run relay which shall provide a three-pole, double-throw relay with 10-amp/ 250 VAC contacts to indicate that the generator is running. The run relay dry contacts can be used for energizing or de-energizing customer devices while the generator is running (e.g. louvers, indicator lamps, etc.)
 - Battery rack and battery cables capable of holding the manufacturer's recommended batteries shall be supplied.
 - The generator set shall be supplied with a 10-ampere automatic float/equalize battery charger capable of charging both lead-acid and ni-cad type batteries, with the following features:
 - Automatic 3-stage float to equalization charge
 - Voltage regulation of 1% from no to full load over 10% AC input line voltage variations
 - Battery charging current Ammeter and battery voltage voltmeter with 5% full-scale accuracy
 - LED lamp for power ON indication
 - Current limited during engine cranking, short circuit, and reverse polarity conditions
 - Temperature compensated for ambient temperatures for -40°C to 60°C
 - Alarm circuit board featuring alarm contacts for low battery voltage, high battery voltage, and battery charger malfunction.
 - UL 1012 Listed
 - CSA Certified
 - The generator set shall be supplied with a 2 Input/5 Output Module kit to provide two additional analog inputs and 5 additional dry contact outputs. The analog inputs can be used for analog or digital input functions. They can be set up for 0-5VDC, ±3VDC resistive or relay contact sensor devices. The dry contact outputs shall be arranged as two 120VAC or 28VDC, 10A form C contacts and three 28VDC, 2A form C contacts. Input and output functions are user defined.
 - A radiator duct flange to provide a convenient connection to duct work for the radiator discharge air shall be included.
 - Supply flexible fuel lines to provide a flexible connection between the engine fuel fittings and the fuel supply tank piping and for the fuel return lines from the injector pump per engine manufacturer's recommendations. Flex line shall have a protective steel wire braid to protect the hose from abrasion.
 - The engine exhaust silencer shall be temperature and rust resistant, and rated for critical applications. The silencer will reduce total engine exhaust noise by 25-35 db(A).
 - The exhaust piping shall be gas proof, seamless, stainless steel, flexible exhaust bellows and includes the flex exhaust tube and the mounting hardware.
- Quantity 1 - 3 Year semi-annual Maintenance Contract

- **Equipment – Transfer Switch**
- **Equipment**
 - Furnish and install an automatic transfer switches system(s) with 3-Pole / 4-Wire, Solid Neutral, 104 Amps, 480V/60Hz. Each automatic transfer shall consist of an inherently double throw power transfer switch mechanism and a microprocessor controller to provide automatic operation. All transfer switches and controllers shall be the products of the same manufacturer.
- **Manufacturer**
 - Automatic transfer switches shall be Kohler or equivalent Any Breaker Rated - Standard Transition (KCS)/KCS-AMTA-0104S. Any alternate shall be submitted for approval to the consulting engineer at least 10 days prior to bid date. Alternate bids shall include a line-by-line clarification of the specification marked with "D" for deviation; "E" for exception, and "C" for comply.
- **Construction**
 - The transfer switch shall be electrically operated and mechanically held with double throw construction, and operated by a momentarily energized solenoid-driven mechanism.
 - All transfer switch sizes shall use only one type of main operator for ease of maintenance and commonality of parts.
 - The switch shall be positively locked and unaffected by momentarily outages, so that contact pressure is maintained at a constant value and contact temperature rise is minimized for maximum reliability and operating life.
 - All main contacts shall be silver composition. Switches rated 600 amperes and above shall have segmented, blow-on construction for high withstand and close-on capability and be protected by separate arcing contacts.
 - Inspection of all contacts shall be possible from the front of the switch without disassembly of operating linkages and without disconnection of power conductors. Switches rated 800 amperes and higher shall have front removable and replaceable contacts. All stationary and moveable contacts shall be replaceable without removing power conductors and/or bus bars.
 - Designs utilizing components of molded-case circuit breakers, contactors, or parts thereof, which are not intended for continuous duty, repetitive switching or transfer between two active power sources, are not acceptable.
 - For two and three pole switches, where neutral conductors are to be solidly connected as shown on the plans, a neutral conductor plate with fully rated AL-CU pressure connectors shall be provided.
 - For four pole switches with a switching neutral, where neutral conductors must be switched as shown on the plans, the contactor shall be provided with fully rated switched neutral transfer contacts. Overlapping neutral contacts may be used as an alternative.
- **Enclosure**
 - The ATS shall be furnished in a NEMA 1 enclosure.
 - All standard door mounted switches and indicating LEDs shall be integrated into a flush-mounted, interface membrane or equivalent in the enclosure door for easy viewing & replacement. The panel shall be capable of having a manual locking feature to allow the user to lockout all membrane mounted control switches to prevent unauthorized tampering. This cover shall be mounted with hinges and have a latch that may be padlocked. The membrane panel shall be suitable for mounting by others when furnished on open type units.

- **Operation**
- **Operators**
- **Controls**
 - A four line, 20 character LCD display and dynamic 4 button keypad shall be an integral part of the controller for viewing all available data and setting desired operational parameters. Operational parameters shall also be available for viewing and control through the communications interface port or USB. The following parameters shall only be adjustable via a password protected programming on the controller:
 - Nominal line voltage and frequency
 - Single or three phase sensing
- **Operating parameter protection**
 - Transfer operating mode configuration (Standard transition, Programmed transition, or Closed transition)
 - Voltage and Frequency
 - Voltage (all phases) and frequency on both the normal and emergency sources shall be continuously monitored. Voltage on both normal and emergency sources and frequency on the emergency sources shall be adjustable with the following pickup, dropout, and trip setting capabilities (values shown as % of nominal unless otherwise specified):

| Parameter | Dropout/Trip | Pickup/Reset |
|---------------------|--------------|--------------------|
| ○ Under voltage | 75 to 98% | 85 to 100% |
| ○ Over voltage | 06 to 135% | 95 to 100% of trip |
| ○ Under frequency | 95 to 99% | 80 to 95% |
| ○ Over frequency | 01 to 115% | 105 to 120% |
| ○ Voltage unbalance | 5 to 20% | 3 to 18% |
 - Repetitive accuracy of all settings shall be within $\pm 0.5\%$ over an operating temperature range of -20°C to 70°C .
 - An adjustable dropout time for transient voltage and frequency excursions shall be provided. The time delays shall be 0.1 to 9.9 seconds for voltage and .1 to 15 seconds for frequency.
 - Voltage and frequency settings shall be field adjustable in 1% increments either locally with the display and keypad, remotely via the communications interface port or USB.
 - The controller shall be capable of sensing the phase rotation of both the normal and emergency sources. The source shall be considered unacceptable if the phase rotation is not the preferred rotation selected (ABC or BAC). Unacceptable phase rotation shall be indicated on the LCD; the service required LED and the annunciation through the communication protocol and dry contacts. In addition, the phase rotation sensing shall be capable of being disabled, if required.
 - The controller shall be capable of detecting a single phasing condition of a source, even though a voltage may be regenerated by the load. This condition is a loss of phase and shall be considered a failed source.
 - Source status screens shall be provided for both normal & emergency to provide digital readout of voltage on all 3 phases (phase to phase and phase to neutral), frequency, and phase rotation.
- **Time Delays**
 - An adjustable time delay of 0 to 6 seconds shall be provided to override momentary normal source outages and delay all transfer and engine starting signals. Capability shall be provided to extend this time delay to 60 minutes by providing an external 12 or 24 VDC power supply.
 - A time delay shall be provided on transfer to the emergency source, adjustable from 0 to 60 minutes, for controlled timing of transfer of loads to emergency.

- A time delay shall be provided on re-transfer to normal. The time delays shall be adjustable from 0 to 60 minutes. Time delay shall be automatically bypassed if the emergency source fails and the normal source is acceptable.
- A time delay shall be provided on shut down of engine generator for cool down, adjustable from 0 to 60 minutes.
- A time delay activated output signal shall also be provided to drive external relay(s) for selective load disconnect and reconnect control. The controller shall be capable of controlling a maximum of 9 individual output time delays to step loads on after a transfer occurs. Each output may be individually programmed for their own time delay of up to 60 minutes. Each sequence shall be independently programmed for transferring from normal to emergency and transferring from emergency to normal.
- All time delays shall be adjustable in 1 second increments.
- All time delays shall be adjustable by using the display and keypad, with a remote device connected to the communications interface port or USB.
- Each time delay shall be identified and a dynamic countdown shall be shown on the display. Active time delays can be viewed with a remote device connected to the communications interface port or USB.
- Additional Features
 - The controller shall have 3 levels of security. Level 1 shall allow monitoring of settings and parameters only. The Level 1 shall be capable of restricted with the use of a lockable cover. Level 2 shall allow test functions to be performed and Level 3 shall allow setting of all parameters.
 - The display shall provide for the test functions, allowed through password security. The test function shall be load, no load or auto test. The auto test function shall request an elapsed time for test. At the completion of this time delay the test shall be automatically ended and a retransfer sequence shall commence. All loaded tests shall be immediately ended and retransfer shall occur if the emergency source fails and the normal source is acceptable.
 - A contact closure shall be provided for a low-voltage engine start signal. The start signal shall prevent dry cranking of the engine by requiring the generator set to reach proper output, and run for the duration of the cool down setting, regardless of whether the normal source restores before the load is transferred.
 - Auxiliary contacts shall be provided consisting of a minimum of two contacts, closed when the ATS is connected to the normal source and two contacts closed, when the ATS is connected to the emergency source.
 - LED indicating lights shall be provided; one to indicate when the ATS is connected to the normal source (green) and one to indicate when the ATS is connected to the emergency source (red).
 - LED indicating lights shall be provided and energized by controller outputs. The lights shall provide true source availability of the normal (green) and emergency sources (red), as determined by the voltage, frequency and phase rotation sensing trip and reset settings for each source.
 - A membrane switch shall be provided on the membrane panel to test all indicating lights and display when pressed.
 - Provide the ability to select "commit/no commit to transfer" to determine whether the load should be transferred to the emergency generator if the normal source restores before the generator is ready to accept the load.
 - Terminals shall be provided for a remote contact which opens to signal the ATS to transfer to emergency and for remote contacts which closes to inhibit transfer to emergency and/or retransfer to normal. Both of these inhibit signals can be activated through the keypad, communications interface port or USB. A "not-in-auto" LED shall indicate anytime the controller is inhibiting transfer from occurring.

- An in-phase monitor shall be a standard feature in the controller. The monitor shall control transfer so that motor load inrush currents do not exceed normal starting currents, and shall not require external control of power sources. The in-phase monitor shall be specifically designed for and be the product of the ATS manufacturer. The in-phase monitor shall be capable of being enabled or disabled from the user interface, communications interface port or USB.
- A time based load control feature shall be available to allow the prioritized addition and removal of loads based during transfer. This feature may be enabled for either or both sources. The user shall be able to control up to nine loads with independent timing sequences for pre and post transfer delays in either direction of transfer.
- The controller shall provide 2 inputs for external controls that can be programmed from the following values:
- Common fault, Remote test, Inhibit transfer, Low battery voltage, Peak shave, Time delay bypass, Load shed forced to OFF position (Programmed transition only)
- The controller shall provide two form "C" contact outputs rated for up to 12A @ 240VAC or 2A @ 480VAC that can be programmed from the following values:
- Aux switch open, Transfer switch aux contact fault, Alarm silenced, Alarm active, I/O communication loss, Contactor position, Exercise active, Test mode active, Fail to transfer, Fail to acquire standby source, Source available, Phase rotation error, Not in automatic mode, Common alarm, In phase monitor sync, Load bank control active, Load control active, Maintenance mode active, Non-emergency transfer, Fail to open/close, Loss of phase, Over/under voltage, Over/under frequency, Voltage unbalance, Start signal, Peak shave active, Preferred source supplying load, Standby source supplying load
- The controller shall be capable of expanding the number of inputs and outputs with additional modules.
- Optional input/output modules shall be furnished which mount on the inside of the enclosure to facilitate ease of connections.
- Engine Exerciser - The controller shall provide an internal engine exerciser. The engine exerciser shall allow the user to program up to 21 different exercise routines based on a calendar mode. For each routine, the user shall be able to:
 - Enable or disable the routine
 - Enable or disable transfer of the load during routine.
 - Set the start time, time of day, day of week, week of month (1st, 2nd, 3rd, 4th, alternate or every)
 - Set the duration of the run.
- At the end of the specified loaded exercise duration the switch shall transfer the load back to normal and run the generator for the specified cool down period. All loaded exercises shall be immediately ended and retransfer shall occur if the standby source fails. The next exercise period shall be displayed on the main screen with the type of exercise, time and date. The type of exercise and the time remaining shall be display when the exercise is active. It shall be possible of ending the exercise event with a single button push.
- Date and time - The date shall automatically adjust for leap year and the time shall have the capability of automatically adjusting for daylight saving and standard times.
- System Status - The controller shall have a default display the following on:
 - System status
 - Date, time and type of the next exercise event
 - Average voltage of the preferred and standby sources
 - Scrolling through the displays shall indicate the following:
 - Line to line and line to neutral voltages for both sources
 - Frequency of each source

- Load current for each phase
- Single or three phase operation
- Type of transition
- Preferred source
- Commit or no commit modes of operation
- Source/source mode
- In phase monitor enable/disable
- Phase rotation
- Date and time
- Controllers that require multiple screens to determine system status or display "coded" system status messages, which must be explained by references in the operator's manual, are not permissible.
- Self-Diagnostics - The controller shall contain a diagnostic screen for the purpose of detecting system errors. This screen shall provide information on the status input signals to the controller which may be preventing load transfer commands from being completed.
- Communications Interface - The controller shall be capable of interfacing, through a standard communications with a network of transfer switches and generators. It shall be able to be connected via an RS-485 serial communication (up to 4000 ft. direct connect or multi-drop configuration). This module shall allow for seamless integration of existing or new communication transfer devices and generators.
- The transfer switch shall also be able to interface to 3rd party applications using Modbus RTU open standard protocols utilizing Modbus register maps. Proprietary protocols shall not be acceptable.
- The controller shall contain a USB port for use with a software diagnostic application available to factory authorized personnel for downloading the controller's parameters and settings; exercise event schedules; maintenance records and event history. The application can also adjust parameters on the controller.
- Data Logging - The controller shall have the ability to log data and to maintain the last 2000 events, even in the event of total power loss. The following events shall be time and date stamped and maintained in a non-volatile memory. The controller shall be able to display up to the last 99 events. The remaining events shall be accessible via the communications interface port or USB.
- Event Logging
 - Data, date and time indication of any event
 - Statistical Data
 - Total number of transfers*
 - Total number of fail to transfers*
 - Total number of transfers due to preferred source failure*
 - Total number of minutes of operation*
 - Total number of minutes in the standby source*
 - Total number of minutes not in the preferred source*
 - Normal to emergency transfer time
 - Emergency to normal transfer time
 - System start date
 - Last maintenance date
 - * The statistical data shall be held in two registers. One register shall contain data since start up and the second register shall contain data from the last maintenance reset.
 - External DC Power Supply - An optional provision shall be available to connect up to two external 12/24 VDC power supply to allow the LCD and the door mounted control indicators to remain functional when both power sources are

dead for extended periods of time. This module shall contain reverse battery connection indication and circuit protection.

- Quantity 1 - 3 year Semi-annual Maintenance contract

4.5.8 EXECUTION

4.5.9 INSTALLATION

- A. Coordination with Electrical Contractor for proper installation.
- B. All electrical connections per federal, state and local regulations and codes.
- C. Hours of work shall be regular business hours from 7:30 a.m. to 4:00 p.m. – Sundays through Saturdays

4.5.10 CONNECTIONS

- A. Generator must be able to run all sewerage pumps in each pump station as specified in the IFB.
- B. Generator must be able to run all existing electric power equipment, outlets, and electric circuitry.

4.5.11 FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
- B. Tests and Inspections: After installing units and after electrical circuitry has been energized, test units for compliance with requirements. Inspect for and remove shipping bolts, blocks and tie-down straps. After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment. Remove and replace malfunctioning units and retest as specified above.

4.5.12 INSTRUCTIONS

Provide services of manufacturer's technical representative for four hours to instruct Wareham staff in the operation and maintenance of units.

4.5.13 STARTUP AND TESTING

Coordinate the startup and contractor testing schedule with the Owner and Engineer. Provide a minimum of seven (7) days prior notice.

4.5.14 WARRANTY

If, within one year after the date of Final Acceptance of the Work or designated portion thereof or after the date of commencement of warranties or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contract and to make a claim for breach of warranty.

RE: GHD Contract for engineering

Richard Bowen <richbowen1@hotmail.com>

Tue 10/8/2019 8:33 PM

To: Lee Cleveland <lcleveland@wareham.ma.us>;

Lee,

I approve as to form.

Rich

From: Lee Cleveland <lcleveland@wareham.ma.us>

Sent: Wednesday, October 2, 2019 11:43 AM

To: Richard Bowen <richbowen1@hotmail.com>

Subject: Fw: GHD Contract for engineering

Rich,

did you get a chance to review this contract?

Thank you,

Lee Cleveland

Department Assistant IV

Wareham Water Pollution Control Facility

6 Tonys Lane

Wareham, MA 02571

508-295-6144

From: Lee Cleveland

Sent: Monday, August 26, 2019 2:19 PM



TOWN OF WAREHAM
Board of Sewer Commissioners

Contract Policy

All contracts will be recommended to the Board of Sewer Commissioners. Upon approval of Town Counsel, final contracts will be presented to Town Accountant for verification of funds then to the Chief Procurement Officer. This document will serve as the contract tracking form for date of presentation.

GHD Inc
Final Design – Overflow Lagoon at the WPCF

Board of Sewer Commissioners: Date _____

_____ Chairperson
James R. Giberti

_____ Commissioner
Sandra L. Slavin

_____ Commissioner
Malcolm R. White

_____ Commissioner
Donna M. Bronk

_____ Commissioner
Peter G. Dunlop

Town Counsel Date _____

_____ Town Counsel

Town Accountant Date _____

_____ Town Accountant

Procurement Officer Date _____

_____ Procurement Officer



**AGREEMENT
BETWEEN**

**TOWN OF WAREHAM, MA
(OWNER)**

AND

GHD INC.

**FOR
SERVICES
FOR**

**Final Design - Overflow Lagoon at the WPCF
(PROJECT)**

GHD Reference Number

September 2019



GHD – USA
Services Agreement

General Details:

| | |
|---|---|
| Project Name | Final Design - Overflow Lagoon at the WPCF |
| The Project is | Final design of an additional overflow lagoon at the Wareham WPCF |
| "OWNER" and the "Client" means | Town of Wareham, MA |
| OWNER's Designated Representative(s) is | Guy Campinha Wareham WPCF 6 Tony's Lane Wareham, MA 02571 508-291-6144 gcampinha@wareham.ma.us |
| OWNER's Authorized Signer is | Derek Sullivan, Town Administrator Town of Wareham |
| "GHD" means | GHD Inc. 1545 Iyannough Road Hyannis, MA 02601-8145 774-470-1630 |
| GHD's Designated Representative is | Russell Kleekamp, Project Manager russell.kleekamp@ghd.com 774-470-1647 |
| GHD's Authorized Signer is | Marc R. Drainville, P.E., Vice President marc.drainville@ghd.com 774-470-1634 |

Services:

Develop final design plans, as further defined in Exhibit A.

Fees:

One Hundred and Ninety Eight Thousand Dollars and Zero Cents (\$198,000.00), as further defined in Exhibit A.

Period of Service:

Effective Date of this Agreement: Date on OWNER signature.
 All phase(s) will be completed by June 30, 2018, as further defined in Exhibit A.

Additional Exhibits:

Exhibit A – Scope of Services
 Exhibit B – Budget
 Exhibit C – Limits of Survey



GHD – USA
Services Agreement

Duly authorized representatives to execute this Agreement:

On Behalf of GHD:

Marc R. Drainville
 (Signature)

Marc R. Drainville, P.E.,
 BCEE, LEED AP
 (Print name)

Vice President
 (Title)

9/20/19
 (Date)

On Behalf of OWNER:

 (Signature)

Derek Sullivan
 (Print name)

Town Administrator
 (Title)

 (Date)

Additional Signatures, if required:

 (Signature)

 (Print name)

 (Title)

 (Date)

 (Signature)

 (Print name)

 (Title)

 (Date)



GHD – USA Services Agreement

Services

1. The standard of care for any professional services performed or furnished by GHD under this Agreement will be the care and skill ordinarily used by members of the profession practicing under similar circumstances at the same time and in the same locality. GHD makes no warranties, express or implied, under this Agreement or otherwise, in connection with GHD's services.
2. Any questions in relation to the services being provided by GHD can be directed to the Job Manager.
3. Change of Scope. The scope of Services set forth in this Agreement is based on facts known at the time of execution of this Agreement. For some projects involving conceptual or process development services, scope may not be fully definable during initial phases. As the Project progresses, facts discovered may indicate that scope should be changed. GHD will promptly inform OWNER in writing of such situations, and if the facts discovered constitute a material change in project assumptions, the parties shall renegotiate the amended scope of this Agreement as necessary.
4. Discovery of Hazardous Materials. OWNER warrants that it has made and will continue to make full and accurate written disclosure to GHD as to any hazardous or toxic materials, pollutants, or contaminants which OWNER knows or has reason to believe exist at the site(s). Discovery of any hazardous or toxic materials, pollutants, or contaminants on or in the site which are not described in written job specifications delivered to GHD prior to GHD'S commitment to perform the work, will constitute a materially different site condition entitling GHD to an equitable adjustment in the contract price or time for performance, or both, as appropriate, or in the alternative, GHD shall, at its sole discretion, have the right to immediately terminate its performance of this Agreement.

Information and Documents

5. OWNER shall designate and advise GHD of a person to act as OWNER's Representative who has complete authority with respect to the services. OWNER shall do the following in a timely manner:
 - (a) Provide all criteria and full Information as to OWNER's requirements for the Project;
 - (b) Assist GHD by providing all available Information pertinent to the Project (e.g. previous reports), all of which GHD may use and rely upon in performing the services; GHD will not be obligated to verify the accuracy of OWNER provided Information unless verification is included in GHD's scope of work;
 - (c) Arrange for site and property access as required for GHD to perform the services;
 - (d) Give prompt written notice to GHD of any event that affects the scope or timing of GHD's services.

Payment

6. Method of Payment. OWNER shall pay GHD the Fees as defined under the Exhibits.

Additionally, OWNER will pay for any additional approved services GHD undertakes, and any Liability, cost or expense GHD incurs, if:

- (a) The general approved scope, schedule, extent or character of Services is changed materially. In this event, the amount of compensation provided for herein shall be subject to equitable adjustment in accordance with paragraph 3, Change of Scope;
 - (b) Any Information OWNER (or OWNER's employees, agents or contractors) provides to GHD is not complete and accurate;
 - (c) Part or all of the Services are delayed or suspended (other than as a result of GHD's breach of the Agreement);
 - (d) OWNER fails to pay an amount due under the Agreement; or
 - (e) OWNER ends the Agreement before GHD has completed the services.
7. GHD will submit monthly invoices for services rendered and payment will be made within 30 days of OWNER's receipt of such invoices. If OWNER fails to make any payment due GHD for Services within 30 days after receipt of GHD's invoice, then:
 - (a) Interest at 1% per month will be charged on all past due amounts; and
 - (b) GHD may, after giving seven (7) days written notice to OWNER, suspend Services under this Agreement until OWNER has paid in full all amounts due for Services, and other related charges. OWNER waives any and all claims against GHD for any such suspension.

When the Fees are on the basis of a lump sum, fixed fee, or a percentage of construction cost for the Project, GHD's invoices will be based upon GHD's estimate of the proportion of the services actually completed at the date of the invoice. If OWNER objects to any invoice submitted by GHD, OWNER shall so advise GHD in writing giving reasons therefore within fourteen (14) days of receipt of such invoice. If no such objection is made, the invoice will be considered acceptable by OWNER.

Insurance

8. GHD shall maintain continuously during the life of this Agreement the following insurance requirements:
 - (a) Workers' Compensation Insurance with statutory limits and Employer's Liability of \$1,000,000 per occurrence;
 - (b) Commercial General Liability Insurance, comprehensive form, with combined single limits of \$1,000,000 in any one occurrence or in the aggregate, applicable to bodily injury, sickness, or death and for loss of or damage to property;
 - (c) Automobile Liability Insurance covering all owned, non-owned, or hired vehicles used by GHD with limits of \$1,000,000 combined single limits applicable to bodily injury, sickness, or death of any one person per occurrence and for loss of or damage to property;



GHD – USA Services Agreement

- (d) Professional Liability Insurance in the amount of \$1,000,000 covering claims, damages and Liability arising out of, or resulting from, GHD's professional negligence in performance of the services.
9. The policies under 8. (b) and 8. (c) above shall: (1) name OWNER as an Additional Insured; (2) be endorsed to be primary and non-contributory to any other insurance maintained by OWNER.
10. GHD will provide OWNER with satisfactory evidence of the above insurances upon request.

Total Liability for Damages

11. (a) ~~Notwithstanding any other provisions of this Agreement, but subject to clause 11(b) below, to the maximum extent permitted by law, the total aggregate Liability of GHD to OWNER and/or anyone claiming by, through, or under OWNER shall be limited to the amounts set out in clause 8 for the relevant insurance policy or, if no insurance is applicable, to \$1,000,000.~~
- (b) ~~With respect to professional errors or omissions only, notwithstanding any other provision of this Agreement, to the maximum extent permitted by law, the total aggregate Liability of GHD to OWNER and/or anyone claiming by, through, or under OWNER, for all Liabilities arising out of, or resulting from the professional errors or omissions of GHD in the performance or non performance of the services shall be limited to \$1,000,000, or the total Fees actually paid to GHD under this Agreement, whichever is greater.~~
- (c) ~~Neither party to this Agreement shall be liable to the other for any indirect, special, incidental, punitive or consequential damages, including but not limited to loss of profits, arising in connection with the performance or non performance of this Agreement.~~

Intellectual Property

12. All Documents prepared or furnished by GHD are instruments of service in respect of the Project and GHD shall retain an ownership and property interest therein whether or not the Project is completed. Any reuse without written verification or adaptation by GHD for the specific purpose intended will be at OWNER's sole risk and without Liability or legal exposure to GHD, and OWNER shall indemnify and hold harmless GHD from all claims, damages, losses and expenses including attorneys' fees arising out of or resulting therefrom.

Confidentiality, documents and information

13. GHD agrees to keep confidential and not disclose to any person or entity, other than GHD's employees and subcontractors, without the prior written consent of OWNER (which consent shall not be unreasonably withheld, delayed, or conditioned), all data and Information not previously known to GHD and marked "CONFIDENTIAL" by OWNER and provided in the course of GHD's performance of the services. This provision shall not apply to data or Information which is in the public domain or which was acquired by GHD independently from third parties not under any obligation to OWNER to keep

such data and Information confidential or which GHD is required to disclose under any law, rule, regulation, ordinance, code, standard, or court order.

Termination

14. (a) The obligation to provide further services under this Agreement may be terminated by either party upon thirty days' written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. Upon such termination, OWNER shall pay to GHD all amounts owing to GHD under the Agreement, for all work performed up to the effective date of termination, plus reasonable termination costs.
- (b) This Agreement may be terminated for convenience by OWNER upon thirty days prior written notice to GHD. In the event of termination for convenience by OWNER, GHD shall be entitled to receive all amounts owing to GHD under the Agreement, for all work performed up to the effective date of termination, plus reasonable termination costs.

Indemnification

15. ~~Subject to the provisions of section 11 of this Agreement, to the maximum extent permitted by law, each party shall indemnify and hold harmless (but shall have no duty to defend) the other party, its appointed and elected officials, partners, officers, directors, employees, and agents, from and against any and all Liabilities arising from the negligent or wrongful acts, errors, or omissions, or breach of contract, by a party; but only to the extent of an indemnifying party's relative degree of fault when considered together with the fault of all parties, including indemnified parties and any parties immune from suit.~~
16. ~~In furtherance of these obligations, and only with respect to OWNER, GHD waives any immunity it may have or limitation on the amount or type of damages imposed under any industrial insurance, worker's compensation, disability, employee benefit, or similar laws. GHD ACKNOWLEDGES THAT THIS WAIVER OF IMMUNITY WAS MUTUALLY NEGOTIATED.~~

Dispute Resolution

17. Both parties agree in good faith to attempt to resolve amicably, without litigation, any dispute arising out of or relating to this Agreement or the work to be performed hereunder. Following notification of a dispute, the parties shall have five (5) business days from the date of notification to begin negotiations and fifteen (15) business days from the notification date to complete negotiations, unless otherwise agreed in writing. In the event that any dispute cannot be resolved through direct discussions, the parties agree to endeavor to settle the dispute by mediation. The parties shall have forty-five (45) calendar days within which to commence the first mediation session following the conclusion of their good faith negotiations or expiration of the time within which to negotiate. Either party may make a written demand for mediation, which demand shall specify the facts of the dispute. The matter shall be submitted to a mediator mutually selected by the parties. The mediator shall hear the matter and provide an informal nonbinding opinion and advice in order to help



GHD – USA Services Agreement

resolve the dispute. The mediator's fee shall be shared equally by the parties. If the dispute is not resolved through mediation, the matter may be submitted to the judicial system, in the courts of general jurisdiction where the Project is located, in which event all litigation and collection expenses, witness fees, court costs and attorneys' fees shall be paid to the prevailing party.

Independent Contractor

18. GHD shall act as an independent consultant and not as an agent or employee of OWNER, and will be solely responsible for the control and direct performance of the services provided by its employees and agents.

Assignment

19. This Agreement may be assigned by either party with the prior written consent of the other party.

Health and Safety

20. GHD shall only be responsible for the activities of its own employees and agents on the Project site with respect to safety.

Compliance with Laws, Permits and Licenses

21. This Agreement shall be governed by the law of the state where the majority of GHD's work for OWNER will be undertaken. GHD shall perform its Services in accordance with applicable laws, regulations, ordinances, permits, licenses, and other rules.

Severability

22. The parties agree that, in the event one or more of the provisions of this Agreement should be declared void or illegal, the remaining provisions shall not be affected and shall continue in full force and effect.

No Third-Party Beneficiaries

23. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by OWNER or GHD to any third party. All duties and responsibilities undertaken under this Agreement shall be for the sole and exclusive benefit of OWNER and GHD. There are no intended third-party beneficiaries. Notwithstanding the foregoing, should a court find a third party to be a beneficiary of this Agreement, it is the intent of the parties that the judicially created third-party beneficiary be bound by and subject to all of the terms and conditions of this Agreement.

Notification Period

24. Any applicable Statute of Limitation shall be deemed to commence running on the date which the claimant knew, or should have known, of the facts giving rise to their claims, but in no event later than the date of the final invoice for GHD's services under this Agreement. To the maximum extent permitted by law, as a condition precedent to commencing a judicial proceeding, a party shall give written notice of their claims, including all amounts claimed, and the factual basis for their claims, to the other party within two (2) years of when the claimant knew, or should have known, of the facts giving rise to their claims, but in no event later than two (2) years from the date of GHD's final invoice for Services under this Agreement.

Complete Agreement

25. This Agreement represents the entire understanding between the OWNER and GHD, and supersedes all prior negotiations, representations, understandings or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both the parties hereto.
26. All notices or other written communications required under this Agreement shall be given personally upon delivery, or by certified mail, return receipt requested, upon deposit in a U.S. Mail receptacle to the appropriate parties at the addresses shown on the signature page.
27. This Agreement applies to all services undertaken by GHD for OWNER relative to this Project, including any services undertaken prior to the Effective Date hereof.

Definitions

28. Unless the context otherwise requires, in the Agreement:
 - "Additional Insured" means that the interests of the client will be noted on the relevant policy, but does not mean that the client is an "Insured" under that policy.
 - "Agreement" means the agreement executed by the parties in connection with the services, including these terms and exhibits.
 - "Designated Representative" means specific individuals who act as Engineer's and OWNER's representatives with respect to the services to be performed or furnished by Engineer and responsibilities of OWNER under this Agreement. Such an individual shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of the respective party whom the individual represents.
 - "Document" or "Documents" includes a written or electronic document.
 - "Fees" means the amount set out in the agreement details including disbursements.
 - "Information" includes documents and information provided pertinent to the project.
 - "Liability" or "Liabilities" means any and all liabilities for actions (whether sounding in tort, contract (express or implied), warranty (express or implied), statutory liability, strict liability, or otherwise); claims (including, but not limited to, claims for bodily injury, death, property damage, (including bodily injury, death, or property damage to employees) or arising under environmental laws); and costs or damages of every nature without limitation (including, but not limited to, reasonable attorneys' fees and costs of defense).
 - "Project" means the project(s) that the services relate to.
 - "Services" means the services set out in the agreement details (or otherwise the services GHD undertakes).
 - "OWNER" means the person(s) set out in the agreement details (and if more than one person, "OWNER" means each of those persons severally and all of them jointly).

CERTIFICATIONS

Statements below shall be submitted with each Bid or Proposal and shall be duly dated and signed with an **original signature** and all other information, or, the Bid or Proposal will be rejected.

In witness whereof, the undersigned certifies, under the pains and penalties of perjury that:

1. STATE TAXES PAID: Pursuant to M.G.L. Chapter 62C, s. 49A, the undersigned certifies that, to the best of my knowledge and belief, have complied with all the laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting of child support.

2. CERTIFICATE OF NON-COLLUSION: M.G.L. C. 30, s. 39M and/or C. 30B, s.10: Any person submitting a bid or proposal for the procurement or disposal of supplies or services to any governmental body shall certify in writing, on the bid or proposal, as follows: The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity, or group of individuals.

3. PUBLIC CONTRACTS - DEBARMENT: M.G.L. C. 550, Acts of 1991: The undersigned certifies that the said "person" is not presently debarred from doing public construction work in the Commonwealth of Massachusetts under the provisions of C. 29, s. 29F, or any other applicable debarment provision of any other Chapter of the General Laws, or any Rule or Regulation promulgated thereunder. Additionally, the undersigned is not presently debarred by any Agency of the Federal Government.

4. HEALTH & SAFETY ON PUBLIC CONSTRUCTION PROJECTS OVER \$10,000.00:
Chapter 306 of the Acts of 2004: The undersigned certifies that the firm is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (2) that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the U.S. OSHA that is at least 10 hours in duration at the time that the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and (3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the U.S. OSHA that is at least 10 hours in duration.

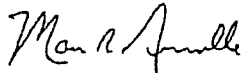
5. COMPLIANCE:

The undersigned is in compliance with all of the provisions, and shall remain in full compliance with the provisions for the life of any Contract resulting from this solicitation. That the bidder is qualified to perform any such Contract and possesses, or shall obtain, all requisite licenses and/or permits to complete performance; shall maintain all unemployment, workers' compensation, professional and personal liability insurance policies sufficient to

cover its performance under any such Contract; and shall comply with relevant prevailing wage rates and employment laws. To the best of its knowledge and belief has paid all local taxes, tax titles, utilities, motor vehicle excise taxes, water and wastewater bills in MA as required by Law.

Print Name: **GHD Inc.**

Circle **Corporation** Partnership Individual

Authorized Signature: 

Print Name: **Marc Drainville**

Title of Person Signing Bid or Proposal: **Principal**

Date: **9/20/19**

Company Federal ID # or Social Security #: **98-0425935**

State of Incorporation: **Massachusetts**

Approval of a Contract, or other Agreement, will not be granted unless this form is signed and fully complete.

- A. Site Access: OWNER shall provide site access to WPCF as needed.
- B. Comments: Owner shall provide comments on submittals and design plans within 5 days of receipt.

PART 3 - OUT OF SCOPE WORK

A3.01 *The following is considered out of scope work:*

- A. Massachusetts Professional Engineer stamped plans and specification. *Stamped plans and specifications will be provided at the time of project bidding.*
- B. Bidding or construction phase services for the proposed overflow lagoons.
- C. Permitting not specifically listed above.
- D. Design of any improvements not directly associated with the overflow lagoon.

PART 4 – PAYMENTS TO ENGINEER FOR SERVICES

OWNER shall pay ENGINEER for Basic Services set forth in Exhibit A as follows:

- A. OWNER shall pay ENGINEER a Lump sum fee of One Hundred and Ninety Eight Thousand Dollars (\$198,000.00).
- B. ENGINEER may alter the distribution of compensation between individual phases noted herein to be consistent with services actually rendered, but shall not exceed the total Lump Sum amount unless approved in writing by the OWNER.
- C. The Lump Sum includes compensation for ENGINEER's services and services of ENGINEER's Consultants, if any. Appropriate amounts have been incorporated in the Lump Sum to account for labor, overhead, profit, and reimbursable expenses.
- D. ENGINEER shall submit invoices on a monthly basis.

PART 5 - PERIOD OF SERVICE

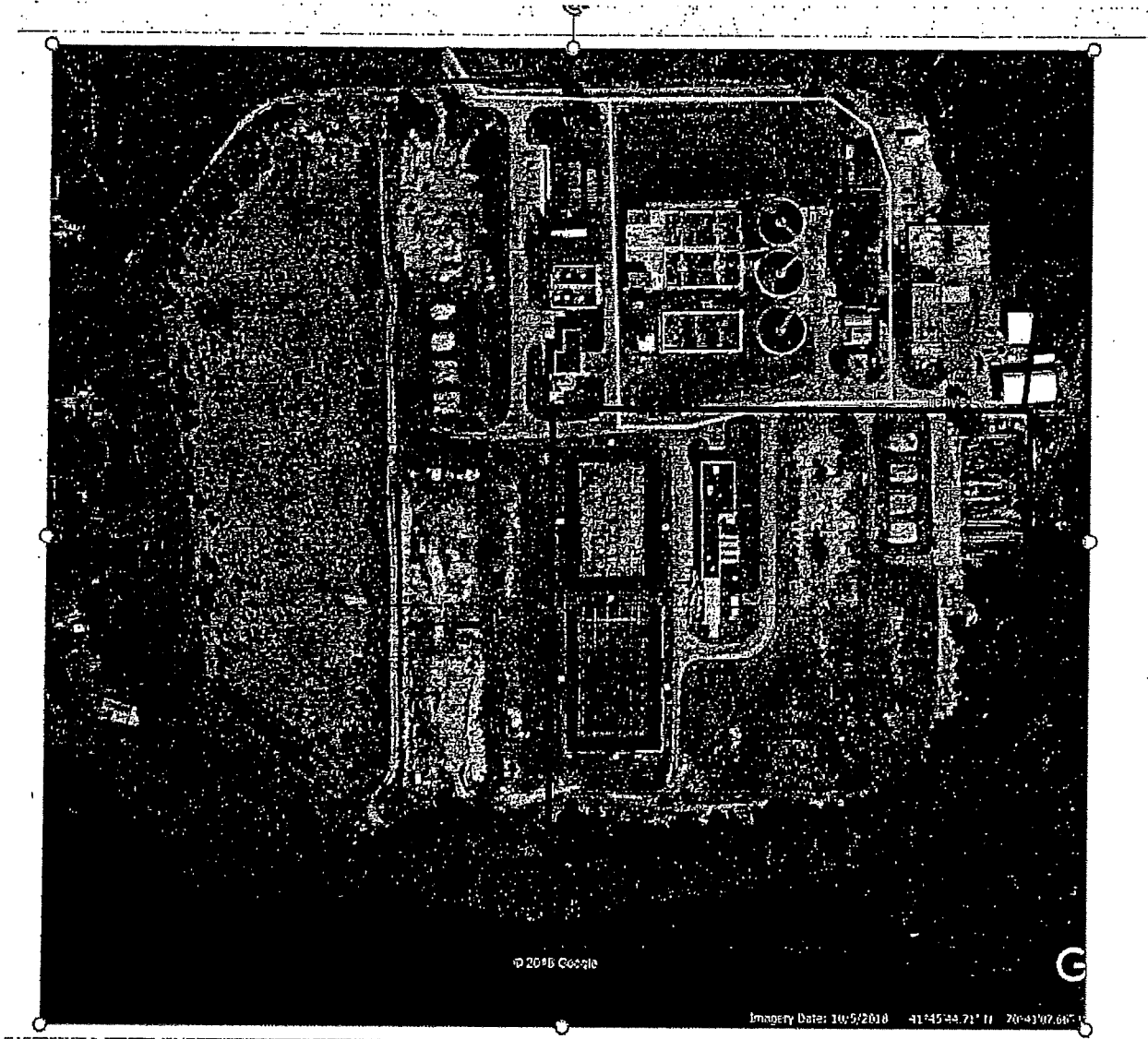
The compensation amount stipulated above for all project tasks to be completed prior to June 30, 2020.

Exhibit B
Proposed Budget for
FY2020 CZM - ENGINEERING FOR WAREHAM WPCF INFLUENT EQUALIZATION CAPACITY EXPANSION
Town of Wareham, Massachusetts
September 1, 2019

| | Project Director Marc Drainville, P.E., BCEE | | Project Manager Russell Kieekamp | | Project Engineer Anastasia Rudenko, P.E., BCEE | | Mechanical / Electrical / Plumbing | | Engineer Craig Curtain, EIT / Lenna Quackenbush | | CAD Drafting James Fosdick / Jim O'Brien | | Admin | | Total Hours | GHD Labor Cost | GHD Expenses/Outside Tech Services | GHD Total |
|-------------------------------------|---|-----------|-------------------------------------|------------|---|------------|------------------------------------|-------------|--|-----------------|---|--|-------|--|-------------|----------------|------------------------------------|-----------|
| | | | | | | | | | | | | | | | | | | |
| 1. Kickoff Meeting | 4 | 4 | 6 | 0 | 8 | 0 | 2 | 24 | \$3,618 | \$28 | \$3,646 | | | | | | | |
| 2. Site Survey / Borings / PID | 0 | 16 | 16 | 0 | 0 | 8 | 0 | 40 | \$6,744 | \$26,392 | \$33,136 | | | | | | | |
| 3. Draft Basis of Design Memorandum | 2 | 4 | 40 | 0 | 40 | 0 | 4 | 90 | \$11,498 | \$28 | \$11,526 | | | | | | | |
| 4. Final Basis of Design Memorandum | 1 | 4 | 24 | 0 | 40 | 0 | 4 | 73 | \$9,029 | \$28 | \$9,057 | | | | | | | |
| 5. Conceptual Design (30%) | 2 | 8 | 24 | 42 | 84 | 180 | 0 | 340 | \$46,466 | \$113 | \$46,579 | | | | | | | |
| 6. Draft Specifications | 1 | 8 | 12 | 0 | 40 | 0 | 15 | 76 | \$8,843 | \$36 | \$8,879 | | | | | | | |
| 7. Progress Meeting #1 | 4 | 4 | 6 | 0 | 8 | 0 | 2 | 24 | \$3,618 | \$113 | \$3,731 | | | | | | | |
| 8. Permit Level Design (75%) | 1 | 6 | 16 | 40 | 64 | 160 | 0 | 287 | \$39,109 | \$113 | \$39,222 | | | | | | | |
| 9. Project Permitting | 0 | 6 | 16 | 0 | 32 | 0 | 4 | 58 | \$7,192 | \$113 | \$7,305 | | | | | | | |
| 10. Final Design Plans (100%) | 1 | 4 | 12 | 20 | 36 | 120 | 0 | 193 | \$27,473 | \$113 | \$27,586 | | | | | | | |
| 11. Final Specifications | 1 | 2 | 4 | 0 | 20 | 0 | 4 | 31 | \$3,649 | \$57 | \$3,706 | | | | | | | |
| 12. Cost Estimate | 0 | 2 | 4 | 0 | 24 | 0 | 0 | 30 | \$3,596 | \$28 | \$3,624 | | | | | | | |
| Total | 17 | 68 | 180 | 102 | 396 | 468 | 35 | 1266 | \$170,835 | \$27,165 | \$198,000 | | | | | | | |

EXHIBIT C

Thanks



Russ Kleekamp
Project Manager

GHD
Proudly employee owned
T: 1-774-470-1647 | F: 1-774-470-1631 C: 1-774-313-8663 | russell.kleekamp@ghd.com
1545 Iyannough Road, Route 132, Hyannis, MA 02601 USA | <http://www.ghd.com/>

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RE: GHD Contract for engineering

Richard Bowen <richbowen1@hotmail.com>

Tue 10/8/2019 8:33 PM

To: Lee Cleveland <lcleveland@wareham.ma.us>;

Lee,
I approve as to form.
Rich

From: Lee Cleveland <lcleveland@wareham.ma.us>
Sent: Wednesday, October 2, 2019 11:43 AM
To: Richard Bowen <richbowen1@hotmail.com>
Subject: Fw: GHD Contract for engineering

Rich,

did you get a chance to review this contract?

Thank you,

Lee Cleveland

Department Assistant IV

Wareham Water Pollution Control Facility

6 Tonys Lane

Wareham, MA 02571

508-295-6144

From: Lee Cleveland
Sent: Monday, August 26, 2019 2:19 PM

To: Richard Bowen

Subject: GHD Contract for engineering

Good afternoon,

Attached, please find a contract from GHD for to replace the emergency generators and Old Salt Works Rd and Terry Lane for you review. It may have originally been submitted by Ellis in February but we have not found anything on so we are submitting it to you now.

Have a great day.

Thank you,

Lee Cleveland

Department Assistant IV

Wareham Water Pollution Control Facility

6 Tonys Lane

Wareham, MA 02571

508-295-6144

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