



**TOWN OF ORLEANS  
PURCHASE ORDER  
\$ 25,000 AND GREATER**

THIS ORDER NUMBER MUST  
APPEAR ON ALL INVOICES,  
PACKING LISTS, AND PGKS.

ORDER  
NUMBER

**3799**

RODZMKVOZHOCTH02-

1. INVOICE MUST BE SENT IN DUPLICATE AND MUST INCLUDE VENDOR'S S.S. OR F.I.D. NO.
2. ORDER NUMBER MUST APPEAR ON INVOICE.
3. OUR TAX EXEMPT NO. E 046 001 258.
4. ISSUE A BILL FOR EACH P.O. SEPERATELY.
5. INVOICES MUST SHOW NUMBER OF UNITS AND UNIT PRICE FOR EACH ITEM.
6. SHIP ALL GOODS PREPAD UNLESS OTHERWISE DIRECTED.
7. THIS P.O. EXPIRES 10 DAYS AFTER REQUIRED DELIVERY DATE.
8. TOWN OF ORLEANS WILL NOT BE LIABLE FOR ANY GOODS RECEIVED WITHOUT AN AUTHORIZED PURCHASE ORDER.

SHIP  
PREPAID  
TO

AECOM

TO: 9 Jonathon Bourne Drive  
Pocasset, MA 02559

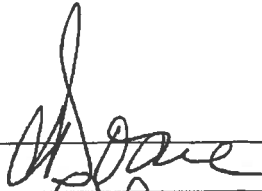
DATE OF ORDER	VENDOR	DEPARTMENT	REQUIRED DELIVERY DATE	ACCOUNT TO BE CHARGED
3/29/18	119	Town Admin	6/30/18	35 175 068 - 589139

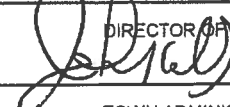
I CERTIFY THAT THIS PURCHASE ORDER COMPLIES FULLY WITH THE TOWN OF ORLEANS PURCHASING PROCEDURES AND CORRESPONDING STATE STATUTES THAT ADEQUATE FUNDS EXIST FOR THIS PURCHASE.

DEPT. HEAD  
SIGNATURE

ITEM NO.	QUANTITY	UNIT	CATALOG NO.	DESCRIPTION	UNIT PRICE	REC'D	AMOUNT
				Water Quality and Wastewater Planning Services in accordance with Change Order No. 7, attached.			(-\$19,500.00)

THIS PURCHASE IS NOT VALID UNLESS SIGNED  
BY TOWN ADMINSTRATOR AND FINANCE  
DIRECTOR.

  
 \_\_\_\_\_  
 DIRECTOR OF FINANCE  
 DATE 4/2/18

  
 \_\_\_\_\_  
 TOWN ADMINISTRATOR  
 DATE 4/2/18

## Greta Avery

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**From:** George Meservey  
**Sent:** Wednesday, April 04, 2018 1:01 PM  
**To:** Greta Avery  
**Cc:** Karen Sharpless  
**Subject:** AECOM purchase order adjustment

Greta:

Please reduce the amount of Purchase Order 37701 (35175068 - 589139) by \$19,500.00 to account for Change Order No. 7, which has a negative overall cost. The original PO amount was \$2,268,960.00, and the adjusted amount of the PO should be \$2,249,460.00. The adjustment can be accommodated because the original contract anticipated a considerable amount of funds to be spent on public engagement and it appears that it will not all be needed to complete the contract.

George

**EXHIBIT C**

**CHANGE ORDER FORM**

In accordance with the Purchase Order, dated October 20, 2015, and the Design Engineering Services Agreement dated October 15, 2015, between Town of Orleans, Massachusetts ("Client"), and AECOM Technical Services, Inc. a California corporation, ("AECOM"), this Change Order, with an effective date of 04/22, 2018, modifies that Agreement as follows:

**1. Changes to the Services:**

- 1.1 Attachment 1 – Scope of Services, EXHIBIT A – SERVICES, Page 14, Article 10. FY17 Planning and Implementation (November 2016 through June 2017), Task 10.1 - Continued Planning and Engineering, 10.1.A - Effluent Disposal.
  - 1.1.1 Task 10.1.A.1 - Overland Way – Site 1/1A, delete the sixth bullet (Submittal of a Groundwater Discharge Permit Application to MassDEP for review and approval) in its entirety.
  - 1.1.2 Task 10.1.A.2 - Downtown Area– Site to be Selected, delete the title and replace with the new title as follows: 10.1.A.2 - Downtown Area– Route 6 Exit 12 Cloverleaf.
  - 1.1.3 Task 10.1.A.2 - Downtown Area– Route 6 Exit 12 Cloverleaf, add the new scope of work as follows:
    - ❖ Test Wick
      - General – Complete the following tasks: (a) installation of three to four 2-inch diameter monitoring wells to a depth of approximately 100 feet; (b) installation of one test wick (approximately 14-inches in diameter) to a depth of approximately 85 feet; (c) performance of a 30-day wick loading test; and (d) collection of periodic water level data from the test wick and monitoring wells.
      - Prepare and submit a request to MassDOT to extend the time limit on Site Access Permit # 5-2017-0056.
      - Prepare and submit to MassDEP a loading test scope of work.
      - Install monitoring wells and Test Wick.
      - Conduct a Wick Step Test and a Wick Loading Test
      - Collect and analyze periodic water level data from the test wick and monitoring wells.
      - Update the groundwater model previously completed and perform model scenarios.
      - Update and resubmit Hydrogeologic Evaluation to MassDEP.
- 1.2 Attachment 1 – Scope of Services, EXHIBIT A – SERVICES, Page 14, Article 10. FY17 Planning and Implementation (November 2016 through June 2017), 10.1.B - Demonstration Projects - Design and Implementation.
  - 1.2.1 Task 10.1.B.1 - Shellfish/Aquaculture – Lonnie's Pond, add the new scope of work as follows:
    - ❖ Provide assistance to SMAST in the development of the Part 2 - Lonnie's Pond Water Quality and Management Plan.
    - ❖ Prepare a draft and final Aquaculture Request for Qualifications for Lonnie's Pond based on the Part 1 - Lonnie's Pond Water Quality and Management Plan and Part 2 - Lonnie's Pond Water Quality and Management Plan (prepared by SMAST).

- 1.2.2 Task 10.1.B.1 - Shellfish/Aquaculture – Kent's Point, delete the scope of work less work already completed to date which was subject to future approval by the Orleans Board of Selection prior to the commencement of work regarding: Assemble Bags, Install Oyster Remote Sets (June 2017) and Operation and Maintenance (June 2017).
- 1.2.3 Task 10.1.B.1 - Shellfish/Aquaculture – Town Cover Quahog Inventory, delete the scope of work less work already completed to date which was subject to future approval by the Orleans Board of Selection prior to the commencement of work regarding: Current population numbers and recommendations for additional quahog propagation numbers Final Technical Memorandum and Review Meeting.
- 1.3 Attachment 1 – Scope of Services, EXHIBIT A – SERVICES, Page 14, Article 10. Task No. 10 - FY17 Planning and Implementation, Task 10.1.C Facilities Engineering – Preliminary Design Report (25% Design) – Downtown Area.
  - 1.3.1 Task 10.1.C.8 – MassDEP SRF Project Evaluation Form, add the new scope of work as follows.
    - ❖ Prepare and submit a draft Project Evaluation Form (PEF) for the 2019 round of financing regarding the Downtown Area through the Massachusetts Department of Environmental Protection State Revolving Fund (SRF) loan program for the Downtown Area Collection System, Wastewater Treatment Facility and Effluent Disposal to the Town for review and comments.
    - ❖ Prepare and submit a final Project Evaluation Form (PEF) for the 2019 round of financing regarding the Downtown Area through the Massachusetts Department of Environmental Protection State Revolving Fund (SRF) loan program .Prepare and submit a final SRF Project Evaluation Form for the Downtown Area Collection System, Wastewater Treatment Facility and Effluent Disposal.
- 1.4 Attachment 1 – Scope of Services, EXHIBIT A – SERVICES, Page 14, Article 10. Task No. 11 - FY18 Planning and Implementation, Task 11.1.A – Continued Engineering and Planning.
  - 1.4.1 Task 11.1.A.1 – 32 Lots Hollow, add the following:
    - ❖ Submittal of a Groundwater Discharge Permit Application to MassDEP for review and approval.
- 1.5 Attachment 1 – Scope of Services, EXHIBIT A – SERVICES, Page 14, Article 10. Task No. 11 - FY18 Planning and Implementation, Task 11.1.B - Demonstration Projects-Design and Implementation.
  - 1.5.1 Task 10.1.B.1 - Shellfish/Aquaculture – Existing Grant Expansion, delete the scope of work regarding the “Coordination Meeting” and associated costs in its entirety.
  - 1.5.2 Task 11.1.B.2 - Permeable Reactive Barriers (PRB) – Town Landfill Nitrogen Assessment - delete the 8th bullet (Implement Long Term Nitrogen Response Action items, as funding allows) and associated costs in their entirety.
  - 1.5.3 Task 11.1.B.2 - Permeable Reactive Barriers (PRB), add the new scope of work as follows:
    - ❖ Eldredge Park PRB Expansion
      - General – Complete the following tasks: (a) Repair Damaged MW-12; (b) Replace Damaged MW-1; (c) Install up to 8 Additional Monitoring Wells to Resolve Uncertainties in Groundwater Flow; (d) Update the Status of Middle School Leach fields (Performance Reports and Operations); and (e) Extend the existing PRB to the North to Intercept High Nitrate Concentrations.
      - Install a new MW-1 to replace the damaged MW-1 and abandon the damaged MW-1 in accordance with MassDEP and the Town of Orleans, MA requirements; and repair damaged MW-12 by adjusting the top of the well casing from approximately 3-feet above grate to being flush with the existing grade.

- o Install up to 8 new Monitoring Wells to Resolve Uncertainties in Groundwater Flow via (a) drill, sample and install five locations with three cluster monitoring wells at each location to estimated depths of 50 feet, 65 feet and 80 feet and (b) drill, sample and install three monitoring wells each to an estimated depth of 50 feet.
- o Update the Status of Middle School Leach fields (Performance Reports and Operations) via meeting(s) and e-mail with the Nauset Regional School District Operations staff.
- o Extend the existing PRB to the North to Intercept High Nitrate Concentrations following the same process as was used for the installation of the existing PRB.
- o Collect samples and analyze data following the repair of the existing monitoring wells, installation of the new monitoring wells Expansion of the existing PRB.
- o Prepare a Technical Memorandum on the: (a) Repair of Damaged MW-12; (b) Replacement of Damaged MW-1; (c) Installation up to 8 Additional Monitoring Wells to Resolve Uncertainties in Groundwater Flow; (d) Update on the Status of Middle School Leach fields (Performance Reports and Operations); and (e) Expansion of the existing PRB to the North to Intercept High Nitrate Concentrations.

1.6 Attachment 1 – Scope of Services, EXHIBIT A – SERVICES, Page 14, Article 10. Task No. 11 - FY18 Planning and Implementation, Aquifer Recharge.

1.6.1 Task 11.1.C.2 – Downtown Area Impact Evaluation – delete the scope of work regarding the “Coordination Meeting” and associated costs in its entirety.

**2. Change to Deliverables:**

Attachment 1 – Scope of Services, EXHIBIT A – SERVICES, Page 14, Article 10. FY 17 Planning and Implementation (November 2016 through June 2017); and Task No. 11 - FY 18 Planning and Implementation revised the Deliverables as follows:

Number	Deliverable	Draft	Final
<b>Task No. 10 - FY 17 Planning and Implementation</b>			
<b>10.1 - Continued Planning and Engineering</b>			
<b>10.1.A.2 - Effluent Disposal – Route 6 Exit 12 Cloverleaf</b>			
	o Prepare and submit: (a) request to MassDOT to extend the time limit on Site Access Permit # 5-2017-0056; and (b) MassDEP a loading test scope of work.	---	100%
	o Install monitoring wells and Test Wick.	---	100%
	o Conduct a Wick Step Test and a Wick Loading Test.	---	100%
	o Collect and analyze periodic water level data from the test wick and monitoring wells and Update the groundwater model previously completed and perform model scenarios.	---	100%
	o Update and resubmit Hydrogeologic Evaluation.	---	100%

**10.1.B - Demonstration Projects - Design and Implementation.**

**Task 10.1.B.1 - Shellfish/Aquaculture – Lonnie's Pond**

- |  |     |      |
|--|-----|------|
| o Assistance to SMAST in the development of the Part 2 - Lonnie's Pond Water Quality and Management Plan | --- | 100% |
| o Aquaculture Request for Qualifications for Lonnie's Pond   | 75% | 25%  |

**10.1.C. - Facilities Engineering – Preliminary Design Report (25% Design) – Downtown Area**

**10.1.C.8 - MassDEP SRF Project Evaluation Form**

- |  |     |     |
|--|-----|-----|
| o Prepare and Submit a MassDEP SRF Project Evaluation Form | 75% | 25% |
|--|-----|-----|

**Task No. 11 - FY 18 Planning and Implementation**

**11.1.B - Demonstration Projects-Design and Implementation**

**11.1.B.2 - Permeable Reactive Barriers (PRB)**

- |  |      |      |
|--|------|------|
| o Install a new MW-1 to replace the damaged MW-1 and repair damaged MW-12. | ---- | 100% |
| o Install 8 new Monitoring Wells.  | ---  | 100% |
| o Extend the existing PRB to the North of the existing PRB.                | ---  | 100% |
| o Prepare a Technical Memorandum on the Expansion of the existing PRB.     | 75%  | 25%  |

3. **Change in Project Schedule (attach schedule if appropriate):** N/A

4. **Change in Consultant's Compensation:**

The Services set forth in this Change Order will be performed on the following basis:

- No change to Compensation
- Time & Material (See Exhibit B for the Hourly Labor Rate Schedule)
- Time and Materials with a Not-to-Exceed amount of (\$ Numerical Amount). The Hourly Labor Rate Schedule is set forth in EXHIBIT B (if applicable). Reimbursable expenses are included in the overall Not to Exceed cap.
- Lump Sum (\$19,500)

1. Transfer \$179,540 from FY18 Landfill Long Term Response Action Item for Route 6 Exit 12 Cloverleaf Wick Well Test.
2. Transfer funding of \$15,000 from Downtown Area Groundwater Discharge Permit Application (Task 10.1.A.2) to the 32 Lots Hollow Road Groundwater Discharge Permit Application.
3. Transfer \$29,675 from Kent's Point for assistance to SMAST in the development of the Part 2 - Lonnie's Pond Water Quality and Management Plan and the development of an Aquaculture Request for Qualifications for Lonnie's Pond.

4. Transfer: (a) \$220,460 from FY18 Landfill Long Term Response Action Item; (b) \$23,700 from FY17 Kent's Point; (c) \$2,500 from FY18 Existing Grant Expansion; (d) \$13,500 from FY17 Town Cove; and (e) \$7,540 from FY18 Public Engagement Coordination (OWQAP Meetings) for installation of additional monitoring wells and expansion of the Eldredge Park Permeable Reactive Barrier demonstration project.
5. Transfer: (a) \$2,000 from FY18 Downtown Area Impact Evaluation; and (b) \$5,500 from FY18 Public Engagement Coordination (OWQAP Meetings) for the completion of the MassDEP SRF Project Evaluation Form.
6. Reduce funding by \$19,500 for the FY18 Public Engagement Coordination (OWQAP Meetings) to fund the development of Part 2 - Lonnie's Pond Water Quality and Management Plan by SMAST.

Attachment 1 – Scope of Services, EXHIBIT A – SERVICES, Page 14, Article 10. FY17 Planning and Implementation (November 2016 through June 2017); and Task No. 11 - FY18 Planning and Implementation, add and/or revised the Payment Amounts as follows:

Number	Deliverable	Payment Amount
<b>Task No. 10 - FY 17 Planning and Implementation</b>		
<b>Task 10.1 - Continued Planning and Engineering</b>		
<b>10.1.A.1 - Overland Way – Site 1/1A</b>		
	o Groundwater Discharge Permit Application	\$0
<b>10.1.A.2 - Effluent Disposal – Route 6 Exit 12 Cloverleaf</b>		
	o Prepare and submit: (a) request to MassDOT to extend the time limit on Site Access Permit # 5-2017-0056; and (b) MassDEP a loading test scope of work.	\$5,000
	o Install monitoring wells and Test Wick.	\$58,540
	o Conduct a Wick Step Test and a Wick Loading Test.	\$46,000
	o Collect and analyze periodic water level data from the test wick and monitoring wells and Update the groundwater model previously completed and perform model scenarios.	\$46,100
	o Update and resubmit Hydrogeologic Evaluation to MassDEP.	\$23,900
<b>10.1.B - Demonstration Projects-Design and Implementation</b>		
<b>10.1.B.1 - Shellfish/Aquaculture</b>		
Lonnie's Pond		
	o Assistance in the development of an Aquaculture RFQ	\$9,675
	o Develop a Growers RFQ	\$20,000

Number	Deliverable	Payment Amount
<b>Kent's Point</b>		
	o Plan and Permitting Technical Memorandum	\$26,250
	o Assembled bags	\$43,875
	o Install oyster remote set (June 2017)	\$0
<b>Town Cove Quahog Inventory</b>		
	o Current population numbers and recommendations for additional quahog propagation numbers Technical Memorandum	\$15,000
	o Coordination Meeting	\$0
<b>11.1.C.4</b>	<b>MassDEP SRF Project Evaluation Form</b>	
	o Prepare and Submit a MassDEP SRF Project Evaluation Form	\$7,500
<b>Task No. 11 - FY 18 Planning and Implementation</b>		
<b>Task 11.1 - Continued Planning and Engineering</b>		
<b>11.1.A.1 – 32 Lots Hollow and 43 Lots Hollow</b>		
	o Groundwater Discharge Permit Application	\$20,000
<b>11.1.B.1 – Existing Grant Expansion</b>		
	o Coordination Meeting	\$0
<b>11.1.B.1 – Town Cove</b>		
	o Coordination Meeting	\$0
<b>11.1.B.2 - Permeable Reactive Barriers (PRB)</b>		
<b>Eldredge Park</b>		
	o Install a new MW-1 to replace the damaged MW-1 and repair damaged MW-12.	\$11,500
	o Install new Monitoring Wells.	\$100,500
	o Extend the existing PRB to the North of the existing PRB.	\$110,000
	o Prepare a Technical Memorandum on the Expansion of the existing PRB.	\$45,700
<b>Town Landfill Nitrogen Assessment</b>		
	o Implementation of Long Term Nitrogen Response Action Plan items, as funding allows.	\$0



Number	Deliverable	Payment Amount
<b>11.1.C. - Facilities Engineering – Preliminary Design Report (25% Design) – Downtown Area</b>		
<b>11.1.C.2 – Downtown Area Impact Evaluation</b>		
o	Coordination Meeting	\$0
<b>Task 11.3 – Program Management</b>		
<b>11.3.B – Public Engagement Coordination</b>		
o	Orleans Water Quality Advisory Panel Meetings	\$49,460
Change Order No. 7 Total		(\$19,500)

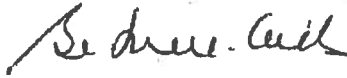
[ ] Cost Plus Fixed Fee: [Cost \$ Numerical Amount and Fee \$ Numerical Amount]

Therefore, the total authorized Compensation, inclusive of the Change Order is \$6,861,070.

Item	Description	Payment Amount
1	Original	\$990,000
2	Change Order No. 1	\$571,560
3	Change Order No. 2	\$2,734,000
4	Change Order No. 3	\$0
5	Change Order No. 4	2,268,960
6	Change Order No. 5	(\$6,050)
7	Change Order No. 6	\$332,100
8	Change Order No. 7	(\$19,500)

5. **Project Impact:** None
6. **Other Changes** (including terms and conditions): None
7. All other terms and conditions of the Agreement remain unchanged.
8. Each Party represents that the person executing this Change Order has the necessary legal authority to do so on behalf of the respective Party.

**AECOM Technical Services, Inc.**



Signature

Betsy Shreve-Gibb

Printed Name

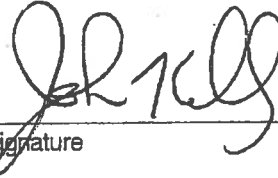
Vice President

Title

**Address**

9 Jonathan Bourne Road  
Pocasset, MA 02559

**CLIENT: Town of Orleans, MA**



Signature

John Kelly

Printed Name

Orleans Town Administrator

Title

**Address**

19 School Road  
Orleans, MA 02653

**Town Accountant's Certificate**

I hereby certify that an appropriation in the amount of this contract is available therefore and that the undersigned official of the Town has been authorized to execute said contract and approve all requisitions and change orders.



Signature

Cathy Doane

Printed Name

Finance Director/Town Accountant

Title

4/4/18

Date

[End of Agreement]