



TOWN OF CHEVERLY, MARYLAND
MAYOR AND TOWN COUNCIL

TOWN MEETING
Thursday, January 10, 2019
8:00PM

AGENDA

1. Call to Order
2. Pledge of Allegiance
3. Approval of Agenda
4. Interim Town Administrator Report
 - a. WSSC Pipe Lining Project
 - b. Ward 2 Vacancy
 - c. Tax Differential Update
5. Acting Chief Towers Police Department Report
6. Committee Reports
 - a. Recreation Council
 - b. Green Infrastructure Committee
 - c. Cheverly Day Committee
 - d. Planning Board Report
7. Citizen Input
8. Resolution R-1-19: Appointment of Members of the Board of Election Supervisors
9. Resolution R-2-19: Appointment of Election Judges
10. Resolution R-3-19: Appointment of Election Clerks
11. PEPCO Presentation: LED Street Lights
12. Introduction of Ordinance 19-01: Amending the Town Code Re: Purchasing Procedures
13. Introduction of Ordinance 19-02: Revising Procurement Procedures
14. Introduction of Ordinance 19-03: Revising the Town Code Re: Personnel (Holidays)
15. Ratification of Interim Town Administrator Agreement
16. Approval of Extension Addendum to Interim Town Administrator Agreement
17. Executive Search Consultant Contract
18. Air Quality Monitoring Proposal
19. Council Announcements
20. Adjournment

Next Meetings of the Mayor and Town Council

January 24, 2019	Worksession	7:30pm
February 8, 2019	Town Meeting	8pm



Memo

To: Town Administrator, Mayor and Council
From: Jarod Towers, Acting Chief of Police #1682
Date: Monday, January 07, 2019

RE: Chief's Report for **December 2018**

Crime/Enforcement Report:

For December 2018, there were 15 reported crimes, 3 assaults, 1 burglary (Hotel), 9 thefts and 2 vandalisms. Not included in these numbers was 1 identity theft.

There were no use of force incidents.

There were 26 adult arrests and 1 juvenile arrest. Of these 27 arrests, 8 were for DUI/DWI, 8 for open warrants, 1 for burglary (Hotel), 1 for domestic assault, 1 for theft and hindering a police officer, 1 for trespassing, 1 for driving w/o a license, and 6 were for narcotic offenses.

The department responded to 262 calls for service, completed 165 house checks, 13 elder watch checks, wrote 58 police and 15 accident/collision reports.

The department made 223 traffic stops, issued 195 citations, 230 warnings, 14 safety equipment repair orders, and 10 parking citations.

Administrative Report:

There were no citizen complaints.

There was one administrative termination related to performance.

There were two departmental collisions, both of which were found to be avoidable and punitive actions are pending.

One investigative position was announced, and four applications were received from current officers. Interviews and evaluations will be hosted by the Hyattsville Police Department on Friday, January 11th.

The department received five applications for the position of police officer. Of those five, three are being processed and two were not selected, one for failing the physical assessment test and the other after the oral interview.



Memo

To: Town Administrator, Mayor and Council
From: Chief of Police
Date: January 6, 2019
Re: Crime Report for December 2018

Find attached:

- 2018 Crime Stats
- Monthly Report of Calls Handled
- Monthly Summary of Reports Written

Total Reported Crimes by Month

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
JAN	11	24	16	16	16	17	21	20	14	20	28	30
FEB	14	6	21	9	13	22	15	24	27	21	20	23
MAR	17	10	18	12	16	11	12	25	23	15	29	33
APR	16	21	11	9	17	22	9	24	25	18	30	31
MAY	30	18	14	17	23	20	13	31	22	20	36	27
JUN	16	23	25	16	9	18	11	24	20	22	29	25
JUL	12	20	11	24	20	13	12	25	21	34	23	31
AUG	13	34	15	23	24	29	16	24	19	25	27	33
SEP	21	16	10	25	22	17	22	16	24	27	25	22
OCT	24	22	10	21	11	15	25	21	31	32	24	28
NOV	16	11	13	13	17	18	10	15	48	26	30	38
DEC	15	30	21	27	28	23	28	18	19	17	39	23
TOTALS	205	235	185	212	216	225	194	267	293	277	340	344

2018

CHEVERLY POLICE DEPARTMENT STATISTICS

CRIME STATS

	YEAR TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ARSON	0	0	0	0	0	0	0	0	0	0	0	0	0
ASSAULT	31	1	1	4	4	2	1	1	2	5	3	4	3
AUTO THEFT	6	1	1	1	0	1	0	1	0	0	0	1	0
BURGLARY (B&E)	22	3	0	1	4	3	0	1	3	1	3	2	1
CAR-JACKING	2	0	0	0	0	0	1	0	0	1	0	0	0
HOMICIDE	0	0	0	0	0	0	0	0	0	0	0	0	0
KIDNAPPING	0	0	0	0	0	0	0	0	0	0	0	0	0
ROBBERY	12	0	1	1	1	5	2	2	0	0	0	0	0
SEX OFFENSE	1	0	0	1	0	0	0	0	0	0	0	0	0
THEFT (includes Fraud)	111	6	7	9	5	16	11	6	5	12	17	8	9
VANDALISM	20	0	4	0	2	3	1	1	3	2	1	1	2
	205	11	14	17	16	30	16	12	13	21	24	16	15
IDENTITY THEFT	6	0	0	1	0	1	0	0	1	0	0	2	1
Use of Force Incident	9	1	1	2	1	0	0	0	1	1	1	1	0

Adult - ARRESTS	304	13	18	28	18	31	27	25	25	29	40	24	26
Juvenile - ARRESTS	8	0	1	1	0	1	0	0	1	2	0	1	1
WARRANTS	106	6	11	10	10	5	7	11	11	6	12	9	8
(Criminal/Civil) CITATIONS	61	1	5	3	7	10	6	5	3	5	6	7	3
DUI / DWI	70	5	4	6	4	5	10	7	5	5	4	7	8
EPS	6	0	0	3	0	0	2	0	0	1	0	0	0
(Field Observation Report) FOR	92	14	13	12	13	13	12	4	0	2	1	4	4

STATE TRAFFIC CITATIONS	2034	150	105	165	196	181	177	141	218	194	143	169	195
WARNINGS	2933	133	139	219	241	199	199	262	415	326	291	279	230
SERO (Equip Repair Order)	256	26	33	43	49	29	8	11	8	0	17	18	14
TOWN PARKING TICKETS	248	55	26	45	26	8	14	18	8	13	7	18	10
HOUSE CHECKS	1922	161	110	136	101	51	121	193	350	223	175	136	165
ELDER WATCH CHECKS	96	1	5	2	23	16	6	6	12	1	11	0	13
REPORTS WRITTEN	645	33	30	57	51	84	56	60	51	48	63	54	58

CODE ENFORCEMENT

Notices of Violation	506	17	22	25	57	112	55	10	56	84	46	11	11
Municipal Infractions	149	12	15	14	1	4	9	17	8	21	9	8	31
Home Rental Inspections	148	2	3	2	2	0	5	2	2	58	40	21	11
Apt. Rental Inspections	154	28	0	0	0	0	1	0	1	0	2	122	0

Cheverly Police Department
CALLS FOR SERVICE TOTALS

12/1/2018

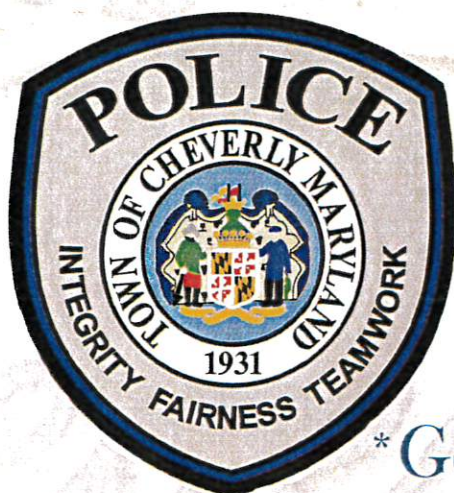
To

1/1/2019

Incident Type	Total
911 DISCONNECT	33
ACCIDENT	16
ALS COMBINED	1
ANIMAL COMPLAINT	2
ARMED PERSON	1
ASSIST	2
ATT SUICIDE COMBINED	1
BREAK IN IN PROGRESS	5
CDS COMPLAINT	1
CHECK WELFARE	6
CHECK WELFARE COMBINED	6
CHECK WELFARE MENTAL	1
DISORDERLY	19
DISPUTE W/ WEAPONS	1
DOMESTIC	5
DOMESTIC COMBINED	1
DOMESTIC STANDBY	1
DOMESTIC W/ WEAPON	2
FAMILY DISPUTE	3
FIGHT	1
FOUND	4
FRAUD	3
GUNSHOTS	3
HIT AND RUN	11
IMPOUND	1
LOCK OUT	1
LOST PROPERTY	2
LOUD MUSIC COMPLAINT	4
MISC POLICE INCIDENT	14
MISSING PERSON	1
PEDESTRIAN STRUCK COMBINED	1
PREMISE CHECK	13
PROPERTY ALARM COMMERCIAL	1
PROPERTY DAMAGE	2
RESIDENTIAL ALARM	19

SHOPLIFTING	1
SUBJECT STOP	5
SUICIDE	1
SUSPICIOUS AUTO	6
SUSPICIOUS OCC AUTO	8
SUSPICIOUS PERSON	5
TELEPHONE COMPLAINT	1
THEFT FROM AUTO	7
THEFT J O	1
THEFT REPORT	5
TRAFFIC COMPLAINT	8
TRAFFIC HAZARD	5
TRESPASSING COMPL	4
UNKNOWN TROUBLE	8
VANDALISM	3
VEHICLE ACCIDENT COMBINED	6
Total Calls -->	262

Come Join Cheverly Police Department at the 1st
Annual New Neighbor Meet 'n Greet hosted by
the Cheverly American Legion Post 315



* Get to know your
Cheverly Police
Officers

* Recruitment

* Light Refreshments

Great Opportunity to
meet our new Acting
Chief Jarod Towers.

Saturday, January 26, 2019

1PM-4PM

3608 Legion Dr. Cheverly, Maryland 20785



Coffee with the Chief



Join Acting Chief Jarrod Towers and members of the Cheverly Police Department for a cup of coffee.



- ❖ Foster communication
- ❖ Express concerns/ ideas
- ❖ Take a tour of the police department
- ❖ Sign-up for ride- a-longs
- ❖ Establish trust

Coffee with the Chief will be taking place the 3rd Wednesday of every month from 7:00am-9:00am, at Cheverly Police Department, 6401 Forest Road, Cheverly, MD 20785.

8. Resolution R-1-19: Appointment of Members of the Board of Election Supervisors

RESOLUTION R-1-19

Appointment of Members of the Board of Election Supervisors

WHEREAS, the Mayor and Council of the Town of Cheverly, Maryland desire to make appointments to the positions of election clerks.

NOW, THEREFORE, BE IT RESOLVED that in accordance with the provisions of Section C-18A of the Charter of the Town of Cheverly, Maryland, the following persons are appointed as members of the Board of Election Supervisors for a two (2) year term:

_____ - Term 2019-2020

_____ - Term 2019-2020

These appointments are effective on the date of this resolution.

Adopted: January 10, 2019

Attest: _____

Mayor

Councilmember

Councilmember

Councilmember

Councilmember

Councilmember

Councilmember

9. Resolution R-2-19: Appointment of Election Judges

RESOLUTION R-2-19

Appointment of Election Judges

WHEREAS, the Mayor and Council of the Town of Cheverly, Maryland desire to make appointments to the positions of election clerks.

NOW, THEREFORE, BE IT RESOLVED that in accordance with the provisions of Section C-18C of the Charter of the Town of Cheverly, Maryland, the following persons are appointed as election clerks to assist the Board of Election Supervisors in the registration of voters and the conduct of elections in **2019**:

WARD 1: _____

WARD 2: _____

WARD 3: _____

WARD 4: _____

WARD 5: _____

WARD 6: _____

These appointments are effective on the date of this resolution.

Adopted: January 10, 2019

Attest: _____

Councilmember

Councilmember

Councilmember

Mayor

Councilmember

Councilmember

Councilmember

10. Resolution R-3-19: Appointment of Election Clerks

RESOLUTION R-3-19

Appointment of Election Clerks

WHEREAS, the Mayor and Council of the Town of Cheverly, Maryland desire to make appointments to the positions of election clerks.

NOW, THEREFORE, BE IT RESOLVED that in accordance with the provisions of Section C-18C of the Charter of the Town of Cheverly, Maryland, the following persons are appointed as election clerks to assist the Board of Election Supervisors in the registration of voters and the conduct of elections in **2019**:

Election Clerks
Barbara Bibbs
Melanie Friesen

These appointments are effective on the date of this resolution.

Adopted: January 10, 2019

Attest: _____

Mayor

Councilmember

Councilmember

Councilmember

Councilmember


Councilmember

Councilmember

11. PEPCO Presentation: LED Street Lights



MEMO

Date: January 4, 2019
To: Mayor and Town Council
From: David J. Deutsch 
Interim Town Administrator
Subject: PEPCO: L.E.D. Street Lights

PEPCO representatives will attend the Council Meeting on January 10th to provide an overview of the potential for converting Town street lights to L.E.D.
I have attached the PEPCO presentation, which they plan to present as a PowerPoint.

ATTACHMENT



EmpOWER
MARYLAND

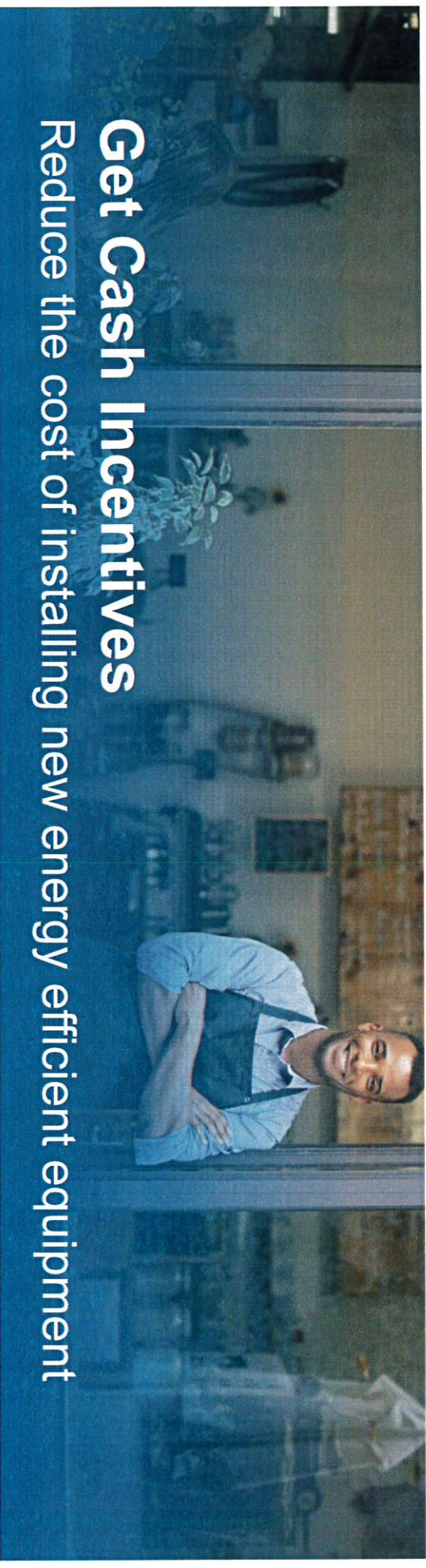


peppco®

An Exelon Company

Energy Savings for Business Program Street Lighting

Energy Savings for Business Program - Small Business



Get Cash Incentives

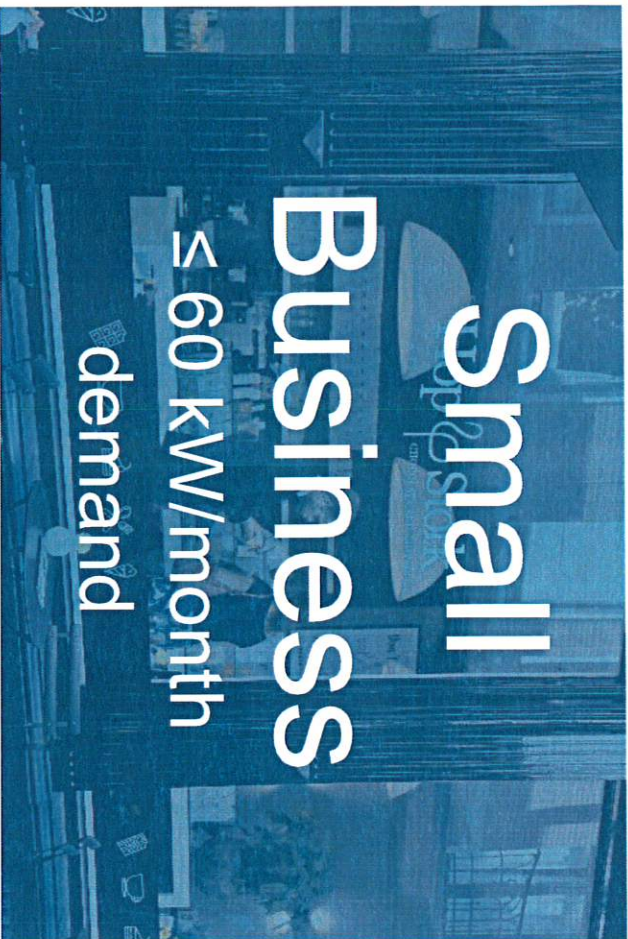
Reduce the cost of installing new energy efficient equipment

- Incentives cover up to 70% of the estimated costs



An Exelon Company

Do I qualify for the Small Business Program?



- Monthly demand not exceeding 60 kW
- Commercial account in Maryland



An Exelon Company

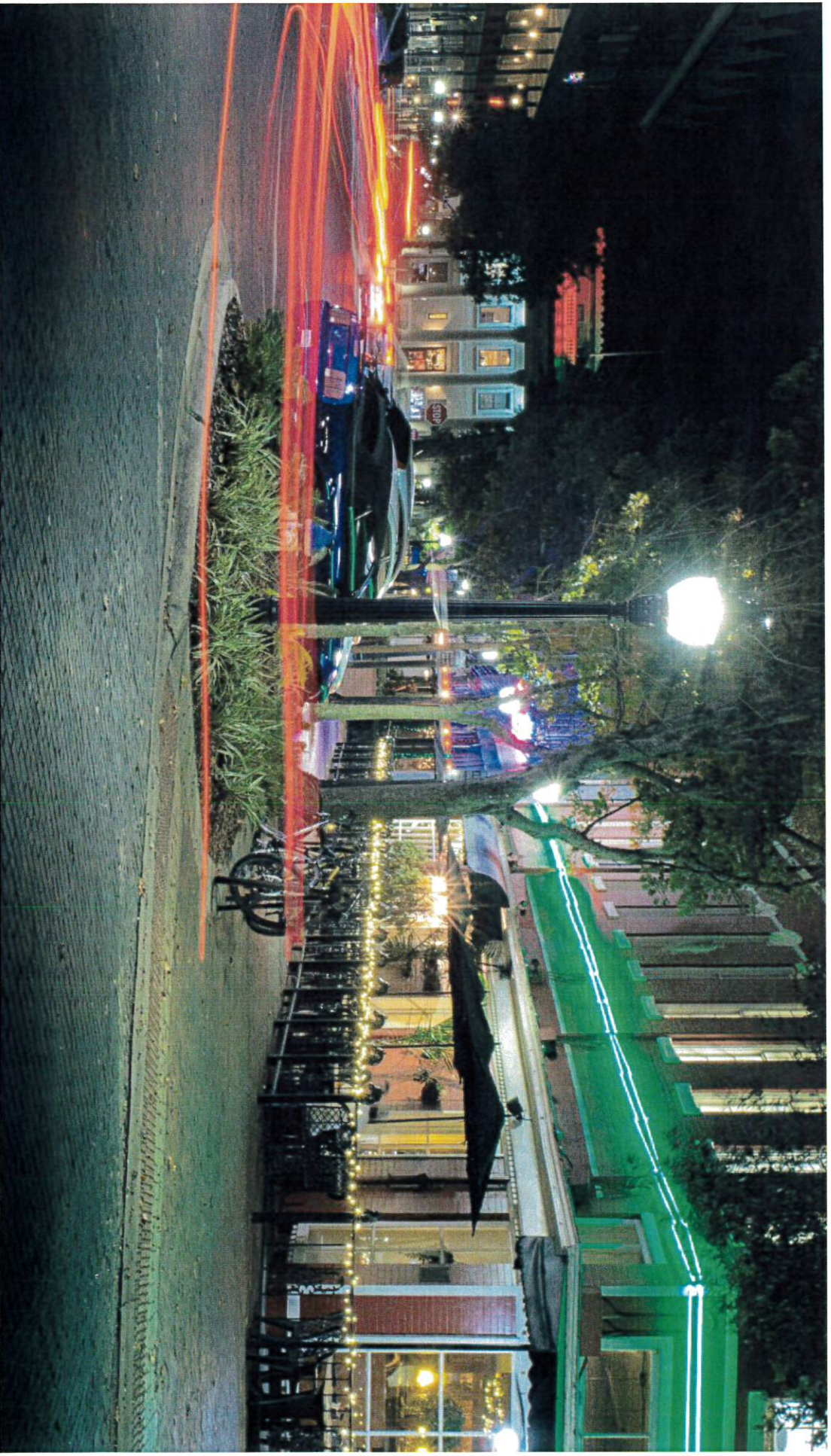
EmpOWER Maryland: Saving Money and Energy

- EmpOWER Maryland
 - Ratepayer-funded program
 - Simplify energy upgrades
 - Energy savings year over year
- Goal is to reduce energy consumption in Maryland.



An Exelon Company

Street Lighting



Pepco-Owned Poles

- If the poles are Pepco-owned, fixtures can be installed by:
 - Pepco crew
 - Pepco contractor
 - Private contractor
 - Contractor must meet Pepco contractor standards/requirements (insurance, safety, training, etc).
 - Only with Pepco approval
- Pepco has a list of approved LED street lights that the customer can choose from.
 - Customers can choose their own LED lights, but they must meet energy-saving criteria
- “Mock up” fixture or fixtures are an option.
 - The customer will need to work with their Pepco Key Account Manager to coordinate.

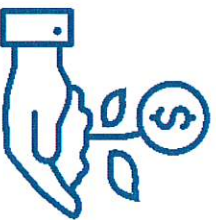


Customer-Owned Poles

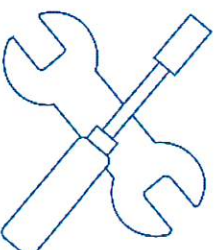
- If the customer owns the poles, the customer must:
 - Use a Pepco Energy Savings for Small Business Program Service Provider
 - Meet the Pepco Energy Savings for Business Program criteria.
- “Mock up” fixture or fixtures are an option.
 - The customer will need to work with their Pepco representative to coordinate.



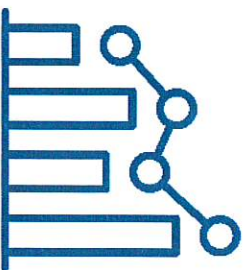
The Small Business Energy Advance Program



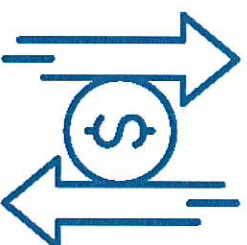
0% on bill repayment available for small business customers



\$2,500
Minimum total project cost (including all materials and labor)



No credit check required, but your account must be in good standing.



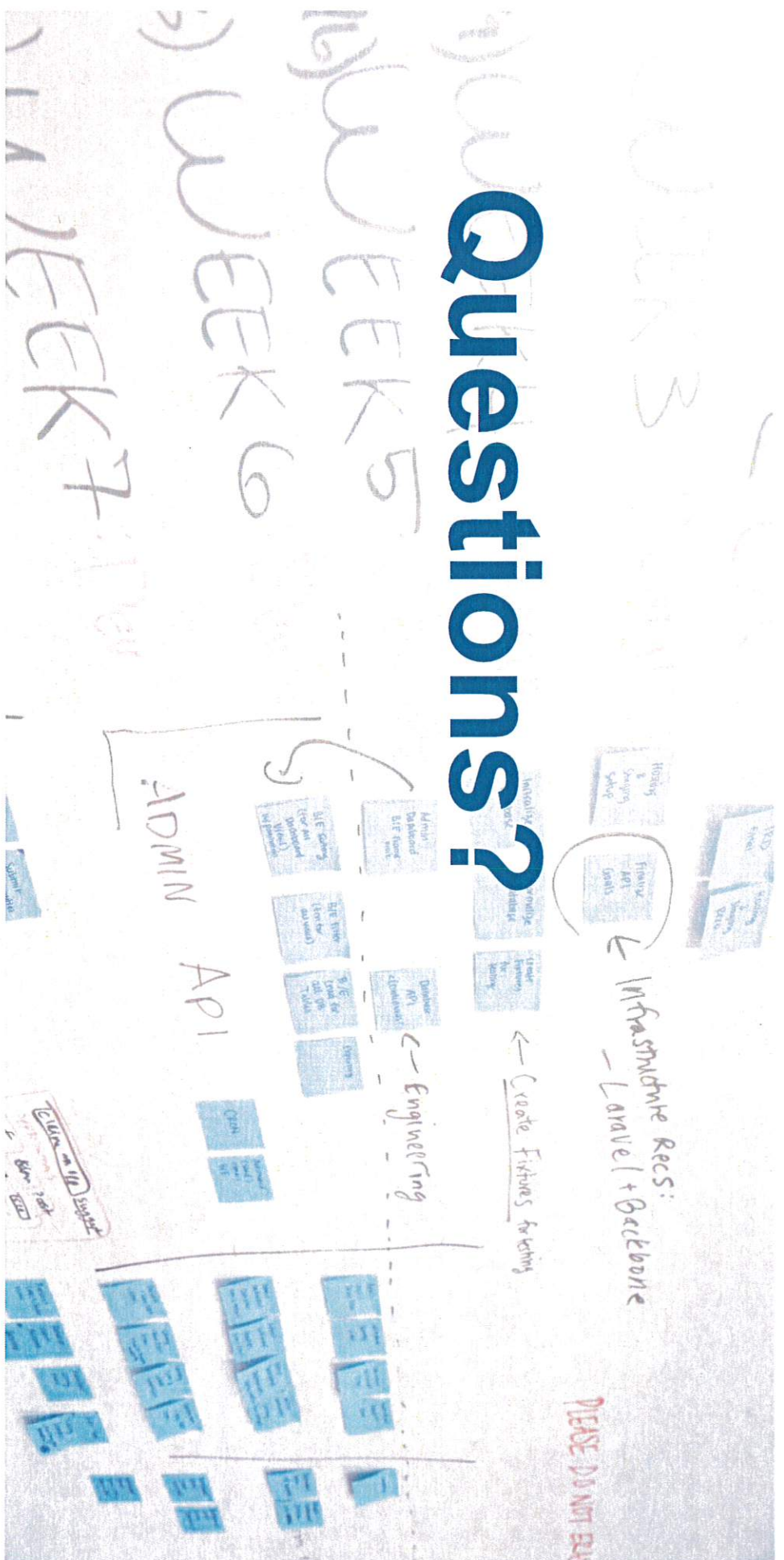
Payment Option

- Monthly installments of 6, 12, or 24 months
- Part of the customer's monthly electric bill



An Exelon Company


Questions?



Introduction of Ordinances



MEMO

Date: January 4, 2019
To: Mayor and Town Council
From: David J. Deutsch 
Interim Town Administrator
Subject: Introduction of Ordinances

The agenda for the January 10, 2019 Town Meeting contains three Ordinances for Introduction. The first two Ordinances (19-01 and 19-02) are companion pieces that reflect the procedural advice of the Town Attorney. The substantive aspect of 19-01 contains the updated bid limit of \$10,000. The proposed Ordinance also has an allowance for contract extensions of up to 25%, provided Mayor and Council are properly notified and sufficient funds exist.

Ordinance 19-03 addresses holidays for Town Employees by stripping out the reference to the Federal Government. The list of holidays contained in the Code was out of date, so we added the Friday after Thanksgiving to reflect Town Policy. The deletion of Inauguration Day is also recommended. Although it is only a quadrennial occurrence, there does not seem to be a need for the Town to close its operations for the event. The inclusion of Inauguration Day may have been another Federal connection that is unnecessary.

12. Introduction of Ordinance 19-01: Amending the Town Code Re: Purchasing Procedures

1 28-10 Contract extensions.
2 28-11 to 28-14. Reserved.

3
4 **ARTICLE II. PROCUREMENTS INVOLVING FEDERAL FUNDS**

5
6 28-15. Procurements involving federal funds – generally.
7 28-16. Solicitation protests.
8 28-17. Contract award protest procedure.

9
10 **ARTICLE I**
11 **PROCUREMENT GENERALLY**

12
13 **Sec. 28-1. Purposes.**

14
15 The purposes of this chapter are to provide for an efficient, cost-effective and equitable system of
16 public purchasing by the Town; to obtain the maximum purchasing value of public funds in
17 procurement; to provide for a procurement system of quality and integrity; and to permit the
18 continued development of procurement policies and practices.

19
20 **Sec. 28-2. Scope.**

- 21
22 A. Except as otherwise provided in the Charter or elsewhere in this chapter, Chapter 28 applies to
23 every expenditure of public funds by the Town for public purchasing irrespective of its source.
24 If there is a conflict with another provision in the Town Code, this Chapter controls.
25
26 B. When a procurement of disposition involves federal assistance or state funds or is subject to
27 federal or state regulations for any reason, the procurement or disposition shall be conducted
28 in accordance with any applicable mandatory federal and/or state laws or regulations.
29
30 C. Nothing in this chapter shall be construed as prohibiting or limiting the Town Council's right
31 to make appointments under the Town's Charter or to authorize any procurement it deems to
32 be in the best interest of the Town, or the Town's right to employ its own personnel for the
33 construction or reconstruction of public improvements or for any other purpose without
34 competitive solicitation.

35
36 **Sec. 28-3. Procurement, generally.**

- 37
38 A. The Town Administrator is authorized to purchase or contract for all, materials, supplies,
39 equipment, services, and construction required by the Town in accordance with purchasing
40 procedures prescribed by the Town Charter, this Chapter and such procedures and policies as
41 he shall adopt for the internal management and operation of Town procurement, and such other
42 rules and regulations which are from time to time prescribed by the Town Council.
43
44 B. In addition to any powers and duties prescribed by this chapter, the Town Administrator shall:

- 1
- 2 (1) Act to procure for the Town the highest quality in supplies and contractual services at
- 3 the lowest expense to the Town;
- 4
- 5 (2) Endeavor to obtain as full and open competition as possible on all purchases and sales;
- 6
- 7 (3) Prescribe and maintain such forms as he shall find reasonably necessary to the
- 8 operation of this chapter;
- 9
- 10 (4) Take advantage of the possibilities of buying "in bulk", so as to take full advantage of
- 11 discounts;
- 12
- 13 (5) Act so as to procure for the Town all federal and state exemptions to which it is entitled;
- 14
- 15 (6) Have the authority to declare vendors who default on their quotations, irresponsible
- 16 bidders, and to disqualify them from receiving any business from the Town for a stated
- 17 period of time; and
- 18
- 19 (7) Sign all contracts.
- 20

21 C. The Town Administrator is authorized to adopt procedures and policies consistent with the
22 Town Charter and this chapter governing procurement of all materials, supplies, services,
23 equipment and construction required by the Town.

24

25 D. The Town Administrator is authorized to delegate the responsibilities outlined in this section
26 with respect to the administration of procurement and making a written determination with
27 respect to the award thereof to any Town department head or other Town employee if such
28 delegation is deemed appropriate for an effective procurement.

29

30 **Sec. 28-4. Competitive bidding.**

31

32 A. Any purchase of materials, supplies, equipment, services or construction, when the estimated
33 or known cost thereof exceeds ten thousand dollars (\$10,000.00) shall be authorized by the
34 Town Council and such purchases shall be made after a competitive bidding process, unless a
35 competitive bidding process is not required by the Town Charter.

36

37 B. Public notice of all required bidding shall be given in one issue of a newspaper having general
38 circulation within the Town. Notice shall also be given by posting information relating thereto
39 on the Town's website. Where required by law, public notice shall also be given by posting
40 the request for proposals on eMaryland Marketplace. Such public notice shall be published not
41 less than ten (10) days prior to the opening of bids. Copies of the notice shall be mailed to
42 those prospective vendors and contractors who have requested that their names be replaced on

1 the list of potential bidders maintained by the Town for the type of item or service that is the
2 subject of the bid or RFP. The notice required herein shall include a general description of the
3 item or service sought to be purchased, shall state where bid specifications may be obtained,
4 and the time and place for opening bids.

5
6 C. Bid security if required by the invitation to bid or the request for proposals shall accompany
7 each bid. In no event shall the amount of the bid security exceed five percent (5%) of the total
8 amount of the bid or proposal.

9
10 D. The closing date and time for receiving bids shall be during normal business hours of the Town.
11 Bids shall be identified as bids on the envelope. Bids shall be publicly opened in a room
12 suitable for accommodating persons who may wish to be present immediately following the
13 closing of the time for the receiving of bids and shall be publicly read. All bids received shall
14 be tabulated and, upon request, a copy of the tabulation shall be furnished to each vendor.

15
16 E. The Town Administrator or the Town Council shall have the right to reject any or all bids,
17 parts of all bids, or all bids for any one or more supplies or contractual services included in the
18 proposed contract, when such action would be in the best interests of the Town.

19
20 F. For the purchases or contracts for which the taking of competitive bids is required, the Town
21 Administrator shall furnish the Town Council a tabulation of all bids, the Town
22 Administrator's recommendation as to award of the bid and such other information as the
23 Town Council may need or shall require. The Town Council shall award the purchase and
24 authorize the Town Administrator to enter into a contract with that bidder offering the best bid.

25
26 G. In determining the best bid, the Town Administrator, and the Town Council shall give
27 consideration to those items included in the bid documents.

28
29 H. When the Town Administrator recommends award to other than the lowest bidder, he shall
30 have caused to be prepared for the Town Council a full and complete statement of the reasons
31 for placing the order elsewhere.

32
33 **Sec. 28-5. Competitive Bidding – Exceptions to requirements.**

34
35 Subject to the approval of the purchase by the Town Council, the requirements for the taking of
36 competitive bids shall not be required if:

- 37
38 (1) The Town Council, by resolution, waives the requirement for the taking of competitive
39 bids and authorizes a negotiated purchase or contract upon its determination that it is
40 in the best interests of the Town or that an emergency exists;

- 1 (2) A competitive bid procedure is not required by the Town Charter because the purchase
2 is for professional services; or
3
4 (3) It is advantageous for the Town to piggyback on an existing contract entered into by
5 another governmental entity provided that:
6
7 a. The existing other governmental contract was competitively procured
8 within the last eighteen (18) months;
9
10 b. The Town Administrator obtains three informal quotes and the expense
11 to the Town of the proposed piggyback contract is lower than the
12 informal quotes;
13
14 c. The proposed piggyback contract is for identical goods or services as
15 are in the existing other governmental contract; and
16
17 d. The Town Administrator obtains copies of the solicitation document,
18 scoring sheets and/or bid tabulation, evidence of contract award and the
19 executed contract relating to the existing other governmental contract or
20 explains in writing to the Mayor and Council why the piggyback
21 contract is recommended in the absence of some or all of the
22 documentation listed in this subparagraph d.
23

24 **Sec. 28-6. Open market procedures.**
25

26 All Purchases of materials, equipment, supplies, services and construction, the estimated or known
27 value of which is such that the approval of the Town Council is not required may be made in the
28 open market upon the authorization of the Town Administrator, without newspaper advertisement,
29 all open market purchases shall, whenever possible, be made from the supplier offering the best
30 quotation and opportunity shall be given to at least three (3) suppliers, when possible, to furnish
31 the Town with produce or service and price information and to be considered in the making of
32 purchases.
33

34 **Sec. 28-7. Multi-term contracts.**
35

36 A contract for goods, insurance, construction, equipment or services may be entered into for any
37 period of time deemed to be in the best interest of the Town provided the term of the contract and
38 conditions of renewal or extension, if any, are included in the solicitation and funds are available
39 for the first fiscal period at the time of contracting. Contracts, the term of which spans more than
40 one fiscal year, shall be subject to the appropriation of funds therefore in subsequent fiscal years.
41 When funds are not appropriated or otherwise made available to support continuation of
42 performance in a subsequent fiscal period, the contract shall be canceled with no penalty to the
43 Town.

1
2 **Sec. 28-8. Emergency procurements.**
3

4 A. The Town Administrator may authorize emergency procurements of supplies, materials,
5 equipment, services, insurance, or construction in an amount not to exceed fifty thousand
6 dollars (\$50,000.00).
7

8 B. Emergency procurements shall be made with such competition as is practical under the
9 circumstances.
10

11 C. As soon as practicable, a record of each emergency procurement shall be made containing the
12 following:
13

14 (1) A written explanation of the circumstances of the emergency;
15

16 (2) A tabulation of bids or quotes received, if any; and
17

18 (3) The contractor's name, the amount and type of contract, a listing of the items
19 procured under the contract.
20
21

22 **Sec. 28-9. Contract performance and payment bonds.**
23

24 A. When a construction contract is awarded, the following bonds or other security, in a form
25 satisfactory to the Town, shall be delivered to the Town and shall become binding on the parties
26 upon the execution of the contract.
27

28 (1) A Performance Bond payable to the Town, executed by a surety company
29 authorized to do business in this state, or the equivalent in cash or other security,
30 conditioned upon the faithful performance of the contract, including all warranties
31 and guarantees, the bond or other security shall be in an amount equal to one
32 hundred percent (100%) of the price specified in the contract; and
33

34 (2) A Payment Bond, executed by a surety company authorized to do business in this
35 state, or the equivalent in cash, letter of credit, or other security satisfactory to the
36 Town, for the protection of all persons supplying labor and materials, including
37 lessors of equipment to the extent of the fair rental value thereof, to the contractor
38 or its subcontractors for the performance of the work provided for in the contract.
39

40 (a) For a contract exceeding one hundred thousand dollars (\$100,000.00) the bond
41 or other security shall be in an amount equal to one hundred percent (100%) of
42 the price specified in the contract.

1
2 (b) For a contract exceeding twenty-five thousand dollars (\$25,000.00) but not
3 exceeding one hundred thousand dollars (\$100,000.00) the bond or other
4 security shall be in an amount equal to fifty percent (50%) of the price specified
5 in the contract.
6

7 (c) No payment bond is required for a contract not exceeding twenty-five thousand
8 dollars (\$25,000.00) unless required by the request for proposals or invitation
9 for bids. Such a bond shall be in an amount not to exceed fifty percent (50%)
10 of the contract price.
11

12 B. Any contractor, prior to receiving a progress or final payment under a contract covered
13 hereunder, shall certify in writing that such contractor has made payment from the proceeds of
14 prior payments, and that such contractor will make timely payments from the proceeds of the
15 progress or final payment then due such contractor, to such contractor's subcontractors and
16 suppliers in accordance with such contractor's contractual arrangement with them.
17

18 C. The Town Administrator may waive or reduce, in writing, the requirement for performance
19 bonds for construction contracts under twenty-five thousand dollars (\$25,000.00).
20

21 D. Contract specifications may require security in an amount determined by the Town
22 Administrator to adequately cover reasonable maintenance, repair, or replacement costs during
23 the contract warranty or guarantee period.
24

25 **Sec. 28-10. Contract Extensions.**
26

27 Nothing herein shall prevent the Town Administrator from extending a contract for an amount not
28 to exceed twenty-five percent (25%) of the original amount of the contract provided that:
29

- 30 (1) Funding is available;
31
32 (2) The Town Administrator causes the reasons for the extension to be set forth in
33 writing for the Mayor and Council; and
34
35 (3) The Mayor and Council approve the contract extension.
36

37 **Sec. 28-11 through 28-14. Reserved.**
38

39 **ARTICLE II. PROCUREMENTS INVOLVING FEDERAL FUNDS.**
40

41 **Sec. 28-15. Procurements involving federal funds – generally.**
42

- 1 A. Protests may be filed by an actual or prospective bidder, offeror or contractor who is aggrieved
2 in connection with a solicitation or award of a formal contract the payment for which involves
3 federal funds. The term "solicitation" as used herein shall refer to requests for proposals and
4 requests for bids issued by the Town of Cheverly for goods and/or services to be provided to
5 the Town, the payment for which involves the use of federal funds. In the event that a
6 mandatory pre-bid meeting is part of a solicitation, anyone who does not attend the mandatory
7 pre-bid meeting will not be considered to be a prospective bidder, offeror or contractor.
8
- 9 B. All protests must be filed in strict conformance with the provisions of this article. Protests not
10 conforming to the requirements set forth herein will not be considered. Failure of a protestor
11 to respond in a timely manner to requests for information shall result in the dismissal of the
12 protest. In no event shall a protest be submitted or accepted by the Town subsequent to the
13 execution of a binding contract with the successful bidder. The Town Administrator shall
14 notify all affected bidders or offerors of the filing of the protest.
15

16 **Sect. 28-16. Solicitation protests.**
17

- 18 A. Protests regarding solicitation or specification documents must be received by the Town in
19 writing no later than fifteen (15) calendar days prior to the closing date of the solicitation. The
20 protestor is responsible for obtaining proof of timely delivery. The envelope must be labeled
21 "Attention: Bid Protest", along with the name of the solicitation. The protest must be mailed
22 or hand-delivered to the Town Administrator, Town of Cheverly, 6401 Forest Road Cheverly,
23 Maryland 20785, with a copy to the person identified in the legal notice for the request for
24 proposals or bids as being the person to contact for further information concerning the request
25 for proposal or bids. The Town Administrator shall refer the matter to the Director of Public
26 Works or such other Town employee as he may deem appropriate to address the Town's
27 response.
28
- 29 B. Protests must be fully supported with adequate technical data, test results or other pertinent
30 information to support the protest. At a minimum, the information shall include the name,
31 address, and telephone number of the protester; identification number of the project as to which
32 the protest is being filed; a statement of the reasons for the protest with supporting documents
33 substantiating the allegations; and a description of the desired relief from the Town.
34
- 35 C. The Town's response to protests will be issued at least seven (7) calendar days prior to the
36 closing date for the receipt of proposals.
37
- 38 D. The bidder who filed the protests may appeal the decision of the Town Administrator. An
39 appeal of the director's or designee's decision by a bidder or an adversely-affected
40 subcontractor must be in writing and be received no later than five (5) calendar days prior to
41 the closing date for receipt of proposals. The protester is responsible for obtaining proof of
42 timely delivery. The notice of the appeal must specifically state that an appeal is being made

1 and identify the decision(s) being appealed. The envelope must be labeled "Attention: Bid
2 Protests", along with the name of the solicitation. The protest appeal must be mailed to the
3 Town Administrator, Town of Cheverly, 6401 Forest Road Cheverly, Maryland 20785. The
4 Town Administrator will render a final decision on the appeal within thirty (30) calendar days
5 after receipt of appeal. No further appeals are authorized.
6

7 **Sec. 28-17. Contract award protest procedure.**
8

- 9 A. Protests of contract awards must be received by the Town in writing no later than seven (7)
10 calendar days after the Town mails formal notice to all bidders of the contract award. The
11 envelope must be labeled "Attention: Contract Award Protest, Along with the name of the
12 solicitation". The contract award protest shall be mailed to the Town Administrator, Town of
13 Cheverly, 6401 Forest Road Cheverly, Maryland 20785, with a copy to the person identified
14 in the legal notice for the request for proposals or bids as being the person to contact for further
15 information concerning the request for proposals or bids. The Town Administrator shall refer
16 the matter to the Director of Public Works or such other Town employee as he may deem
17 appropriate to address the Town's response.
18
- 19 B. Contract award protests must be fully supported with adequate technical data, test results, or
20 other pertinent information to support the protest. At a minimum, the information submitted
21 must include name, address and telephone number of the protester; identification of the project
22 for which the protest is being filed; a statement of reasons for the protest; any supporting
23 exhibits; evidence or documents to substantiate the protest; and a statement of the ruling
24 desired from the Town.
25
- 26 C. The Town's response to protests will be postmarked by certified mail no later than thirty (30)
27 calendar days after the receipt of the written protest.
28
- 29 D. The decision of the Director of Public Works or other designee shall be final except in instances
30 of violations of state and federal law or regulations. If there is an allegation that such a
31 violation exists, the bidder may appeal the decision of the director or designee to the Town
32 Administrator. An appeal of a decision of the director or designee must be in writing and
33 received by certified mail no later than seven (7) calendar days after the receipt of the decision.
34 The notice of appeal must specifically state that an appeal is being made and identify which
35 decision(s) is being appealed. The envelope must be labeled "Attention: Contract Award
36 Protest", along with the name of the solicitation. The protest appeal must be mailed to Town
37 Administrator, Town of Cheverly, 6401 Forest Road Cheverly, Maryland 20785.
38

39 **AND BE IT FURTHER ORDAINED** that this Ordinance shall take effect 30 days from
40 the date of its adoption;

1 **AND BE IT FURTHER ORDAINED** that a fair summary of this ordinance shall
2 forthwith be published twice in a newspaper having general circulation in the Town and otherwise
3 be made available to the public.

4 **INTRODUCED** by the Town Council of the Town of Cheverly, Maryland, at a regular
5 public meeting on _____, 2019.

6 **ADOPTED** by the Town Council of the Town of Cheverly, Maryland, at a regular public
7 meeting on _____, 2019.

8

Adopted: _____

Attest: _____

Michael Callahan, Mayor

9

10

11 [] indicate deletions

12 _____/**BOLD**/CAPS indicate additions

13 Asterisks * * * Indicate matter retained in existing law but omitted herein

14

13. Introduction of Ordinance 19-02: Revising Procurement Procedures

1 ~~(b) All public works projects with a total cost of five thousand dollars (\$5,000) or more and all~~
2 ~~public contracts with a total cost of five thousand dollars (\$5,000) or more shall be fully described~~
3 ~~as noted below and, where not carried out by employees of the town, shall be carried out under~~
4 ~~public contract or by agreement with another agency charged with that special service. The mayor~~
5 ~~and town council or their designated representative shall invite at least three (3) sealed bids from~~
6 ~~responsible bidders for such public works projects or public contracts. The bids shall be opened~~
7 ~~only after reasonable public notice at a meeting open to the public and presided over by the town~~
8 ~~administrator or his or her designee and at least one other town employee or official. The mayor~~
9 ~~and town council shall award the contract to the lowest responsible bidder or to a bidder that is not~~
10 ~~the lowest bidder when the mayor and town council find that the financial interest of the town~~
11 ~~would reasonably be served by such award, with the mayor and town council reserving the right~~
12 ~~to reject any and all bids. All such public works projects and public contracts which cover~~
13 ~~improvements, the cost of which is assessable against property owners abutting the improvements,~~
14 ~~must be authorized by the mayor and town council at a public meeting. At that time there shall be~~
15 ~~available the specifications and a set of detailed plans prepared by the town engineer or a qualified~~
16 ~~firm or individual, showing the following:~~

- 17
- 18 (1) Right-of-way, name of road, dimensions, relative location of adjacent properties,
19 location map, North point, scale and exiting coordinates.
- 20 (2) Catch basins, inlets, pipes, culverts, and other drainage structures, with their
21 dimensions.
- 22 (3) Pavement plan, curb and gutter, sidewalks, driveways, and dimensions.
- 23 (4) Construction details and a typical cross section of the pavements.
- 24 (5) Grading plan, profile and cross sections
- 25 (6) Any additional data required by the mayor and town council.

26 (c) The specifications and detailed plans for public works projects are to be filed with the town
27 administrator and be available for review during the regular hours that the town administrator's
28 office is open, until the project is completed. After completion, of the project, the specifications
29 and plans shall be made a permanent record of the Town of Cheverly. Inspection service shall be
30 maintained by the town engineer or a duly appointed qualified representative of the mayor and
31 town council, to assure compliance with the specifications and detailed plans on file in the town
32 administrator's office and that minimum standards as contained hereafter are met. The cost of
33 supervision and inspection shall be included in such contracts, in accordance with currently
34 accepted engineering rates to cover the cost of supervision and/or inspection of all public works
35 by the town engineer or a qualified firm or individual, and shall be added to and included in the
36 cost of all such projects.

37

38 Sec. 24-2. – Procedures for sSmall public works projects.

39

40 Small public works projects shall include all projects, including all public improvements to
41 properties, such as construction of roads, curbs, gutters, sidewalks, catch basins and storm drains

1 ~~Public works projects with a total cost of less than five thousand dollars (\$5,000). and public~~
2 ~~contracts with a total cost of less than five thousand dollars (\$5,000). These small public works~~
3 ~~projects shall be handled in accordance with procedures issued by the town administrator with the~~
4 approval of the mayor and town council.

5
6 * * *

7
8 **AND BE IT FURTHER ORDAINED** that this Ordinance shall take effect 30 days from
9 the date of its adoption;

10 **AND BE IT FURTHER ORDAINED** that a fair summary of this ordinance shall
11 forthwith be published twice in a newspaper having general circulation in the Town and otherwise
12 be made available to the public.

13 **INTRODUCED** by the Town Council of the Town of Cheverly, Maryland, at a regular
14 public meeting on _____, 2019.

15 **ADOPTED** by the Town Council of the Town of Cheverly, Maryland, at a regular public
16 meeting on _____, 2019.

17
Adopted: _____

Attest: _____

Michael Callahan, Mayor

18
19
20 [] indicate deletions

21 _____/BOLD/CAPS indicate additions

22 Asterisks * * * Indicate matter retained in existing law but omitted herein

23

14. Introduction of Ordinance 19-03: Revising the Town Code Re: Personnel (Holidays)

1 (1) All employees shall be granted holiday leave with regular compensation for the following
2 holidays: ~~Same holidays as are officially observed by the United States Government; as of January~~
3 ~~1, 1985, these holidays are:~~

4 New Year's Day.

5 Martin Luther King, Jr.'s Birthday.

6 ~~Inauguration Day.~~

7 President's Day.

8 Memorial Day.

9 Independence Day.

10 Labor Day.

11 Columbus Day.

12 Veterans Day.

13 Thanksgiving Day.

14 The day after Thanksgiving.

15 Christmas Day.

16 * * *

17 **AND BE IT FURTHER ORDAINED** that this Ordinance shall take effect 30 days from
18 the date of its adoption;

19 **AND BE IT FURTHER ORDAINED** that a fair summary of this ordinance shall
20 forthwith be published twice in a newspaper having general circulation in the Town and otherwise
21 be made available to the public.

22 **INTRODUCED** by the Town Council of the Town of Cheverly, Maryland, at a regular
23 public meeting on _____, 2019.

24 **ADOPTED** by the Town Council of the Town of Cheverly, Maryland, at a regular public
25 meeting on _____, 2019.

1

Adopted:

Attest:

Michael Callahan, Mayor

2

3

4 indicate deletions

5 /**BOLD**/CAPS indicate additions

6 Asterisks * * * Indicate matter retained in existing law but omitted herein

7

15. Ratification of Interim Town Administrator Agreement

**EMPLOYEE AGREEMENT
DAVID DEUTSCH – INTERIM TOWN ADMINISTRATOR**

DATE OF HIRE: November 12, 2018

This Agreement is made and entered into by and between the Town of Cheverly, a municipal corporation duly organized under the laws of the State of Maryland, hereinafter referred to as “Town;” and David Deutsch, hereinafter referred to as “Employee.”

WITNESSETH:

WHEREAS, Employee desires to provide services to the Town as the Interim Town Administrator; and

WHEREAS, Employee serves at the pleasure of the Mayor and Town Council; and

WHEREAS, both Town and Employee agree that it is appropriate to memorialize the conditions and terms of employment without modifying the at will nature of the employment.

NOW THEREFORE, the Town of Cheverly does hereby employ the services of David Deutsch as its Interim Town Administrator under, and in accord with the following terms and conditions:

SECTION 1. DUTIES

1.1. The Employee shall work under the direct supervision of the Mayor and be responsible to the Mayor and Town Council. The Employee shall further be charged with the duties as outlined in the Charter, Code Regulations of the Town, and the position description, as each of these may be amended.

1.2. The Employee shall perform other legally permissible and proper duties and functions as the Town Administrator and that the Mayor and Town Council shall, from time to time assign.

1.3. The Employee shall devote his/her entire time to the discharge of official duties and shall not engage in outside employment; however, the term “outside employment” shall not be construed to include occasional teaching, writing or consulting performed on the Employee’s time off as long as such activities do not conflict with, or in any way interfere with or impede, the Employee’s ability to perform his/her duties as a Town Employee.

SECTION 2. TERM

2.1. The initial term of this Agreement shall commence on the 12th Day of November 2018 and terminate on the 31st day of December 2018, unless the Town and Employee take action to either extend the Agreement term or terminate this Agreement in accordance with Section 10 of this Agreement.

2.2. Employee agrees to provide at least seven (7) days written notice to the Mayor prior to terminating this agreement.

SECTION 3. COMPENSATION

3.1. The Town shall pay Employee a gross salary of \$3,346.15 per biweekly period for his/her services or prorated portion thereof. Payroll taxes will be removed.

3.2. Employee resides in Worcester County, Maryland. The Town agrees to pay a housing allowance of \$1,000 per month or prorated portion thereof unless payroll taxes apply to this amount in which case it will be \$1,300 per month or prorated portion thereof.

3.3. The Town shall provide Employee with \$150 per week for travel expenses. Alternatively, the Town shall provide a municipally owned vehicle for Employee's use. It is expressly understood that while employee traveling to and from work in his personal vehicle that he is not in a duty status and that nothing in this provision is intended to indicate otherwise.

SECTION 4. PERFORMANCE EVALUATION

4.1. N/A.

SECTION 5. HOURS OF WORK

5.1. Employee shall work normal Town business hours Tuesday through Thursday of each week, including attendance at Council meetings.

SECTION 6. ANNUAL AND SICK LEAVE

6.1. Employee will accrue vacation at a rate consistent with twenty-year employee who works three days a week. At the end of the employment period, the Town will pay the Employee the value of any unused vacation leave.

6.2. Employee shall not be entitled to any other type of leave.

SECTION 7. HEALTH AND LIFE INSURANCE

7.1. Employee shall be responsible for his own health care insurance and life insurance.

7.2. The Town shall reimburse Employee for his share of Medicare and Social Security taxes based on the Employee's salary.

SECTION 8. RETIREMENT

8.1. In lieu of retirement benefits, the Town is providing the benefits set forth in Sections 6 and 7.

SECTION 9. DEATH DURING TERM OF EMPLOYMENT


9.1. If Employee dies during the term of his/her employment, Town shall pay to Employee's estate all the compensation which would otherwise be payable to the Employee up to the date of the Employee's death and the Agreement shall terminate as of such date.

SECTION 10. NON-RENEWAL, EXTENSION, REMOVAL

10.1. The Town, at its sole discretion, may terminate this agreement at any time and for any reason.

10.2. The Town, at its sole discretion, may shorten the term of this agreement set forth in Section 2 above at any time and for any reason.

10.3. The Town and Employee may extend the term of this agreement set forth in Section 2 above by mutual written agreement.

10.4 This agreement shall automatically terminate if the current Town Administrator's  returns to duty or if a full time Town Administrator is hired. <

SECTION 11. INDEMNIFICATION

11.1 The Town, but only to the degree that its insurance allows and in accordance with applicable law, shall defend, save harmless and indemnify Employee in the same manner and according to the same conditions as any municipal official and/or employee, against any tort, professional liability claim or demand or other legal action, whether groundless or otherwise, arising out of an alleged act or omission occurring within the scope of and in the performance of Employee's duties for the Town, such duties to include all obligations and commitments as articulated in this Agreement. Town or its insurance company may compromise and settle any such claim or suit and pay the amount of any settlement or judgment rendered thereon but only pursuant to the insurance agreement and terms; provided, however, that nothing herein shall obligate the Town to pay the costs of defending any criminal action brought by any Municipal, County, State or Federal authority.

SECTION 12. OTHER TERMS AND CONDITIONS OF EMPLOYMENT

12.1 The Town in consultation with the Employee may modify, amend or fix such other terms and conditions of employment as may be determined, from time to time, to be necessary or appropriate, provided that such terms and conditions are not inconsistent with or in conflict with the provisions of this Agreement, the Town Charter or any other law.

SECTION 13. NO REDUCTION OF BENEFITS

13.1 N/A.

SECTION 14. NOTICES

14.1 Notices pursuant to this Agreement shall be given by United States Mail, postage pre-paid, addressed as follows:

Town:

Mayor
Town of Cheverly
6401 Forest Road
Cheverly, Maryland 20785

Employee:

David Deutsch
15 Cambridge Place
Ocean Pines, Maryland 21811

14.2 Alternatively, notices required pursuant to this Agreement may be personally served on the individual. Notice shall be deemed given as of the date of personal service or as of the date of deposit of such written notice into the United States Mail Service.

SECTION 15. MISCELLANEOUS

15.1. This Agreement is subject to audit by the City, and the Contractor agrees to make all of its records relating to the goods or services provided to the City available to the City upon request and to maintain those records for six (6) years following the date of substantial completion of this Agreement; or a longer period, if reasonably requested by the City.

15.2. If any term or provision of this Agreement shall be held invalid or unenforceable to any extent, the remainder of this Agreement shall not be affected thereby, and each term and provision of this Agreement shall be enforced to the fullest extent permitted by law.

15.3. All representations, warranties, covenants, conditions and agreements contained herein which either are expressed as surviving the expiration and termination of this Agreement or, by their nature, are to be performed or observed, in whole or in part, after the termination or expiration of this Agreement shall survive the termination or expiration of this Agreement. This Agreement is entered into as of the day and year first written above.

15.4 The laws of the State of Maryland, excluding conflicts of law rules, shall govern this Agreement as if this Agreement were made and performed entirely within the State of Maryland. Any suit to enforce the terms hereof or for damages or other relief as a consequence of the breach or alleged breach hereof shall be brought exclusively in the courts of the State of Maryland in Prince George's County, and the parties expressly consent to the jurisdiction thereof and waive any right which they have or may have to bring such elsewhere.

SECTION 16. ENTIRE AGREEMENT

16.1 This Agreement shall constitute the entire agreement of the parties. No oral agreement or arrangement, not put in writing and signed by both parties, shall have any force and effect: provided, however that any Ordinance or Charter provision or amendment thereto shall automatically be incorporated, except as otherwise expressed herein, into the terms and provision of this Agreement after proper adoption by the Town; and provided further that this Agreement shall be binding upon and insure to the benefit of the heirs at law and personal representatives of Employee.

16.2 The recitals above are hereby incorporated into this Agreement.

THE TOWN OF CHEVERLY has caused this Agreement to be signed and executed in its behalf by its Mayor and duly witnessed; and the Employee has signed and executed this Agreement, both in duplicate, the day and year first above written.

11/12/18
Date

Employee

David Deutsch
David Deutsch

11/12/18
Date

Town of Cheeverly

Michael Callahan
Michael Callahan, Mayor

Barbara Belts 11/15/18
Witness Date

16. Approval of Extension Addendum to Interim Town Administrator Agreement

**ADDENDUM TO EMPLOYEE AGREEMENT
DAVID DEUTSCH – INTERIM TOWN ADMINISTRATOR**

DATE OF HIRE: November 12, 2018

This Addendum to the Employee Agreement is made and entered into this 28th day of December 2018, by and between the Town of Cheverly, a municipal corporation duly organized under the laws of the State of Maryland, hereinafter referred to as "Town;" and David Deutsch, hereinafter referred to as "Employee."

WITNESSETH:

WHEREAS, Employee has provided services to the Town of Cheverly as the Interim Town Administrator since November 12, 2018;

WHEREAS, Employee's current contract is scheduled to expire on December 31, 2018;

WHEREAS, Employee continues to desire to provide services to the Town as the Interim Town Administrator; and

WHEREAS, the Town desires to retain Employee as the Interim Town Administrator beyond December 31, 2018.

NOW THEREFORE, the Town of Cheverly does hereby extend the services of David Deutsch as its Interim Town Administrator in accord with the following terms and conditions:

1. Pursuant to section 2.1 of the November 12, 2018, Employee Agreement the expiration of the Agreement is extended from December 31, 2018, to FEBRUARY 28, 2019; and
2. All other terms and conditions of the November 12, 2018, Employee Agreement between the Town and Employee remain unchanged and in effect.

THE TOWN OF CHEVERLY has caused this Addendum to Employee Agreement to be signed and executed on its behalf by its Mayor and duly witnessed, and the Employee has signed and executed this Agreement, both in duplicate, the day and year first above written.

(The Remainder of this Page is Intentionally Blank. Signature Page Follows)

ADDENDUM TO EMPLOYEE AGREEMENT
DAVID DEUTSCH - INTERIM TOWN ADMINISTRATOR

DATE OF HIRE: November 12, 2018

12/28/18
Date

Employee
David Deutsch
David Deutsch

12/28/18
Date

Town of Cheverly
Michael Callahan
Michael Callahan, Mayor

Barbara Bilba 12/28/18
Witness Date

17. Executive Search Consultant Contract

TOWN OF CHEVERLY

AGREEMENT

THIS AGREEMENT is made this ___ day of _____, 2019, by and between **THE TOWN OF CHEVERLY**, a municipal corporation of the State of Maryland, hereinafter referred to as the "Town," and the Mercer Group, Inc., a Georgia corporation that specializes in management consulting for the private and public sectors, hereinafter referred to as "Contractor."

RECITALS

WHEREAS, the Town Administrator position in the Town of Cheverly is vacant; and

WHEREAS, the Town does not have the necessary time, contacts or expertise to conduct a search; and

WHEREAS, David Deutsch, a Senior Vice President in the Mercer Group, has been acting as the Town's Interim Town Administrator for approximately two months and has developed a working knowledge of the Town's needs;

WHEREAS, the Mayor and Council have determined that Mr. Deutsch, who was the City Manager in Bowie, Maryland, for twenty-three years before retiring, is uniquely qualified to understand and address the Town's needs; and

WHEREAS, the Town of Cheverly's Mayor and Council, on behalf of the Town, authorized the Mayor to execute a contract with the Mercer Group, Inc., to conduct a search for a new Town Administrator for the Town (hereinafter, the "Project").

TERMS

NOW, THEREFORE, in consideration of the mutual covenants and obligations contained herein and other good and valuable consideration, the sufficiency of which is hereby mutually acknowledged, the Town and Contractor agree as follows:

Article 1.0. Scope of Services.

1.1. The Town requires a professional independent executive search consultant to assist the Town as outlined in Contractor's Proposal dated January 8, 2019; and

1.2. The Town requires assistance in evaluating applicants for Town Administrator; and

1.3. Town requires a recruitment brochure to be created; and

1.4. Updates on status.

Article 2.0. Period of Performance.

2.1. Contractor agrees to commence work immediately upon execution of the Contract

and shall perform all other services required by this Agreement or by the Town as expeditiously as is consistent with good professional skill and best industry practice.

2.2. It is expected that the project will take approximately one hundred and twenty (120) days.

Article 3.0. Fee for Services.

In exchange for these good and valuable services, the Contractor will be paid sixteen thousand dollars and zero cents (\$16,000.00) and associated expenses not to exceed four thousand dollars and zero cents (\$4,000.00) related to advertising, printing, and reference and background checks. Contractor will submit invoices and supporting documentation.

Article 4.0. The Contract Documents.

4.1. This Agreement and the following enumerated documents form the entire Contract between the parties. Where there is a conflict between any of the contract documents and this Agreement, the language of this Agreement shall govern. The documents identified below are as fully a part of the Contract as if hereto attached. They constitute the entire understanding of the parties and supersede any prior proposals or agreements:

4.1.1. January 8, 2019, Proposal from the Mercer Group, Inc., to the Town of Cheverly.

Article 5.0. Contractor Services.

5.1. As directed by the Town, Contractor shall:

5.1.1. *See* Scope of Services, which are incorporated herein by reference.

5.1.2. Comply with the Prince George's County Code, the Town of Cheverly Code and Charter, when applicable, and all pertinent Federal, State, and County laws and regulations.

5.1.3. Attend conferences in person or by teleconference with Town or persons designated by Town as necessary for the successful completion of this Agreement.

5.1.4. Be responsible directly to the Mayor, who is the Town's agent and duly authorized representative to whom Contractor shall ordinarily direct communication and submit documents for approval and from whom Contractor shall receive directions concerning the subject of this Agreement and approval of any documents in writing. Any revisions requiring additional compensation to Contractor shall not be commenced without the Town's written authorization approved by the Town's Mayor & Council.

5.1.5. Maintain the confidentiality of the personnel process and protect the

confidentiality of the personal information provided by the applicants in accordance with all laws applicable to the Town of Cheverly in these respects.

Article 6.0. Cooperation.

The Contractor agrees to perform its services under this Contract in such manner and at such times so that Town and/or any contractor who has work to perform, or contracts to execute, can do so without unreasonable delay. Contractor further agrees to coordinate its work under this Agreement with any and all other contractors deemed necessary by the Town.

Article 7.0. Ownership of Documents.

Town shall have unlimited rights in the ownership of all drawings, designs, specifications, notes and other work developed in the performance of the Agreement, including the right to use same on any other Town Project without additional cost to Town, and with respect thereto Contractor agrees to and does hereby grant to Town an exclusive royalty-free license to all data which he or she may cover by copyright and to all designs as to which he or she may assert any rights or establish any claim under the patent or copyright laws. The Town's rights in ownership of documents under this Article shall include any and all electronic files generated by Contractor in the performance of its duties pursuant to this Agreement.

7.1. In the case of future reuse of the documents, Town reserves the right to negotiate with Contractor for the acceptance of any professional liability.

Article 8.0. Special Provisions.

8.1. Contractor may not assign or transfer any interest in this Agreement except with Town's written approval.

8.2. Town may waive specific minor provisions of the Agreement on Contractor's request in the interest of expediting the contract. Waiver shall not constitute a waiver of any liability ensuing there from.

8.3. Except as otherwise provided in the contract documents, the Town's Mayor, shall decide all disputes after consultation with Contractor, and any other appropriate parties. The Town Mayor's decision shall be reduced to writing and delivered to Contractor and such dispute resolution shall not be considered a Change pursuant to this contract unless the dispute resolution modifies either the services rendered or the total fee for services as provided herein.

8.4. The Town Mayor's decision shall be final and conclusive.

8.5. Until a dispute is finally resolved, Contractor shall proceed to meet the terms of this Agreement and comply with Town Mayor's orders.

8.6. Contractor shall not hire or pay any employee of the Town or any department, commission agency or branch thereof.

Article 9.0. Termination.

9.1. This Agreement may be terminated by the Town at the Town's convenience upon not less than thirty (30) days written notice to the Contractor.

9.2. In the event of termination, which is not the fault of Contractor, the Town shall pay to Contractor the compensation properly due for services properly performed or goods properly delivered prior to the effective date of the termination and for reasonable reimbursable expenses properly incurred prior to the termination. The Town shall not be liable for any damages, costs or expenses for lost profit, overhead or discontinuation of contract or equitable adjustment in the event of termination by the Town.

9.3. In the event the Contractor, through any cause fails to perform any of the terms, covenants or provisions of this Agreement on his part to be performed, or if Contractor for any cause, fails to make progress in work hereunder in a reasonable manner, or if the conduct of Contractor impairs or prejudices the interest of the Town, or if Contractor violates any of the terms, covenants, or provisions of this Agreement, the Town shall have the right to terminate this Agreement for cause by giving notice in writing of the termination and date of such termination to Contractor. The Town shall have the sole discretion to permit the Contractor to remedy the cause of the contemplated termination without waiving the Town's right to terminate the Agreement. All drawings, specifications, electronic files and other documents relating to the Project, not in the public domain, shall be surrendered forthwith by Contractor to the Town as required by the Town. The Town shall not be liable for any damages, costs or expenses for lost profit, overhead or discontinuation of contract or equitable adjustments in the event of such termination.

Article 10.0. Applicable Law.

The laws of the State of Maryland, excluding conflicts of law rules, shall govern this Agreement as if this Agreement were made and performed entirely within the State of Maryland. Any suit to enforce the terms hereof or for damages or other relief as a consequence of the breach or alleged breach hereof shall be brought exclusively in the courts of the State of Maryland in Prince George's County, and the parties expressly consent to the jurisdiction thereof and waive any right which they have or may have to bring such elsewhere.

Article 11.0. Changes.

11.1. The Town Mayor may, at any time, by written order designated or indicated to be a change order, make any change in the work within the general scope of this Agreement, provided any change is co-signed by the Vice Mayor.

11.2. Any other written order from Town, which causes any change, shall be treated as a change order under this clause, provided that Contractor gives Town written notice stating the date, circumstance, and source of the order and the Town consents to regard the order as a change order.

11.3. Except as herein provided, no order, statement, or conduct of the Town shall be treated as a change under this clause or entitle Contractor to an equitable adjustment hereunder.

11.4. If any change under this clause causes an increase or decrease in the cost of, or the time required for, the performance of any part of this Agreement, whether or not changed by any order, an equitable adjustment shall be made and the Agreement modified in writing accordingly.

11.5. The amount of any adjustment to the contract sum under this clause shall be a negotiated fixed hourly rate.

Article 12.0. Successors and Assigns.

The parties each binds itself, its partners, successors, assigns and legal representatives to this Agreement and to the partners, successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement. Neither party shall assign, sublet or transfer his interest, including but not limited to the proceeds thereof, in this Agreement, without the written consent of the other party.

Article 13.0. Insurance.

Contractor represents that he does not possess insurance and requested that the Town remove the provision.

Article 14.0. Indemnification.

Contractor hereby acknowledges and agrees that it shall be responsible for and indemnify, defend, and hold the Town harmless against any claim for loss, personal injury and/or damage that may be suffered as a result of its own negligence or willful misconduct in the performance of the services herein contracted for or for any failure to perform the obligations of this Agreement, including, but not limited to, attorneys fees and any other costs incurred by the Town, in defending any such claim. Contractor further agrees to notify the Town in writing within ten (10) days of receipt of any claim or notice of claim made by third parties against the Contractor or any subcontractor regarding the services and work provided to the Town pursuant to this Contract. Contractor shall provide the Town copies of all claims, notice of claims and all pleadings as the matter progresses. This Article shall survive termination of the Contract.

Article 15.0. Certifications of Contractor.

The Contractor and the individual executing this Agreement on the Contractor's behalf warrants it has not employed or retained any person, partnership, corporation, or other entity, other than a bona fide employee or agent working for it, to solicit or secure this Agreement, and that it has not paid or agreed to pay any person, partnership, corporation, or other entity, other than a bona fide employee or agent, any fee or any other consideration contingent on the making of this Agreement.

Article 16.0. Set-Off.

In the event that the Contractor shall owe an obligation of any type whatsoever to the Town

at any time during the term hereof, or after the termination of the relationship created hereunder, the Town shall have the right to offset any amount so owed the Contractor against any compensation due to the Contractor for the provision of Construction, Goods or Services covered by the terms of this Agreement.

Article 17.0. Miscellaneous.

17.1. This Agreement is subject to audit by the Town, and the Contractor agrees to make all of its records relating to the goods or services provided to the Town available to the Town upon request and to maintain those records for six (6) years following the date of substantial completion of this Agreement; or a longer period, if reasonably requested by the Town.

17.2. If any term or provision of this Agreement shall be held invalid or unenforceable to any extent, the remainder of this Agreement shall not be affected thereby, and each term and provision of this Agreement shall be enforced to the fullest extent permitted by law.

17.3. The person executing this Agreement on behalf of the Contractor hereby covenants, represents and warrants that he/she is duly authorized to execute and deliver this Agreement on behalf of the Contractor.

17.4. All representations, warranties, covenants, conditions and agreements contained herein which either are expressed as surviving the expiration and termination of this Agreement or, by their nature, are to be performed or observed, in whole or in part, after the termination or expiration of this Agreement shall survive the termination or expiration of this Agreement. This Agreement is entered into as of the day and year first written above.

17.5. This Agreement represents the entire and integrated Agreement between the Town and Contractor and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by the duly authorized representatives of the Town and the Contractor.

17.6. The recitals above are hereby incorporated into this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their proper and duly authorized officers, on the day and year first above written.

WITNESS/ATTEST:

By: _____ (SEAL)
Date

WITNESS/ATTEST:

The Town of Cheverly

Clerk

By: _____ (SEAL)
Michael Callahan, Mayor Date

The Mercer Group, Inc.

TOWN ADMINISTRATOR RECRUITMENT PROPOSAL

January 8, 2019

CHEVERLY, MARYLAND

1. The Mercer Group, Inc. uses a multi-step recruitment process. Those steps include:
 - A. Position Analysis—we will define the requirements of the position and the job qualifications—the “Position Profile”.
 - B. Recruitment Process—we will recruit regionally and nationally for the position and network to locate qualified candidates.
 - C. Resume Review—we will identify qualified candidates.
 - D. Candidate Screening—we will thoroughly screen qualified candidates.
 - E. Background Investigation—we will thoroughly evaluate prospective candidates
 - F. Interview Process—we will make recommendations and assist in the process.
 - G. Negotiation and Follow-up—we will facilitate employment and follow-up to ensure complete integrity in the process
2. Schedule: The estimated time for the project is 120 days.
3. Proposal Cost: Our fee for this project is \$16,000, plus not to exceed expenses of \$4,000. The expenses relate to advertising, printing, reference and background checks, etc. Travel costs are minimized with Mr. Deutsch working in Town. We will submit regular invoices for fees and expenses. It is our practice to bill one-third at the start of the project, one-third upon delivery of the semi-finalist application materials, and one-third at the candidate interview stage.

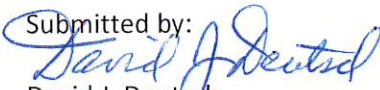
There is no guarantee that a candidate will be placed. Our role is to solicit candidates who meet the Town’s requirements, review those candidates, and assist you in selecting the best applicants from the applicant pool. This is not a contingent fee contract proposal. We will continue to work with you if the initial recruitment does not produce a top candidate. If we need to extend the search the only cost impact may be some additional advertising and consultant travel.

4. Contacts: The primary contact for this search will be David J. Deutsch, Senior Vice President. Mr. Deutsch is a career city manager with over 40 years’ experience. He was Chief Executive Officer of full service communities in Maryland and Pennsylvania. His major emphasis has been on financial management, public safety, human resources/labor relations, economic development, and public works including utility management, environmental /sustainability issues, and organization improvement. Mr. Deutsch has been active in the Municipal Leagues in Maryland and Pennsylvania. He chaired the Board of Trustees for more than half of his 11 year tenure with the Local Government Insurance Trust in Maryland. Mr. Deutsch holds a Master’s in Public Administration from the Maxwell School of Citizenship and Public Affairs at Syracuse University, along with a B.A. in Political Science from the State University of New York at Stony Brook. He was City Manager in Bowie, Maryland for 23 years, and Township Manager for 13 years in Springettsbury Township, Pennsylvania.

Mr. Deutsch may be assisted in the search by Mr. James L. Mercer, the founder of The Mercer Group, Inc. Mr. Mercer holds Bachelors and Master's degrees from the University of Nevada, Reno. Mr. Mercer has over 35 years' experience in executive search and management consulting.

5. Primary Contact Experience: Mr. Deutsch retired from service as City Manager in Bowie, Maryland in June, 2016. He managed city manager recruitments in 2016-2017 in Bowie and Westminster, Maryland. He recently assisted the Maryland Municipal League (MML) with the recruitment of its new Director of Conferences and Publications. In 2018, Mr. Deutsch successfully completed the recruitment for Town Manager in Berwyn Heights, Maryland, and for Police Chief in Mount Rainier, Maryland.
6. Guarantee: The Mercer Group, Inc. provides a two-year guarantee. If our placement leaves the Town voluntarily within two years of appointment, we will conduct a search again to fill the position. Our costs in that circumstance will be limited to expenses incurred in the search process.

Submitted by:



David J. Deutsch

Senior Vice President

The Mercer Group, Inc.

15 Cambridge Place

Ocean Pines, MD 21811

301.343.6033

18. Air Quality Monitoring Proposal

Scope of Work

PROJECT TITLE: Development of a Hyper Local Air Quality Monitoring Network for Cheverly-Capitol Heights

I. Purpose

Seeking to address concerns over air pollution related to local industrial activities and traffic, Dr. Sacoby Wilson and team with the Community Engagement, Environmental Justice, and Health (CEEJH) Laboratory at the University of Maryland School of Public Health will work with the towns of Cheverly and Capitol Heights, Maryland to develop a hyper local air pollution monitoring network. The network will use low-cost real-time sensors to provide baseline air quality data that can be used for understanding pollution levels near sources of concern, educate local residents, inform decision-making about future industrial expansion, and help with mitigation efforts.

We will prioritize monitoring near the following stationary sources: 1) the World Recycling Co. E-waste recycling facility in Cheverly (38.917306, -76.911286), the Smith and Sons Scrap Metal Recycling facility in Capitol Heights (38.915069, -76.931704), and the LaFarge North America concrete batch plant in Capitol Heights (38.906880, -76.905092). In addition to these stationary sources of pollution, their associated mobile sources of pollution (including fossil fuel burning vehicles such as trucks, heavy equipment and locomotives), and pollution related to commuter traffic will also be investigated as these represent a high concern for residents in nearby neighborhoods.

II. BACKGROUND ON POLLUTION SOURCES.

Metal and E-waste Recycling Facilities. Metal or scrap recycling creates several concerns for environmental and occupational health. In China, researchers have linked e-waste (scrap electronics) open-air burning to levels of cadmium, copper, lead, and zinc in soil and crops; levels that exceeded government regulations for food (Luo et al. 2010). Smelting and burning of Automotive Shredder Residue (ASR), plastic or other non-metal components of scrapped vehicles, can also produce incredibly toxic persistent organic pollutants (POPs) such as polychlorinated biphenyls (PCBs), dibenzo-p-dioxins (PCDDs), and dibenzofurans (PCDFs) (Buekens & Zhou, 2014; Nie et al. 2012; Tyskland et al. 1989). Direct emissions aside, vehicles used for loading and unloading scrap metal are another source of air pollution. Given the building materials of many modern electronics that are scrapped, workers in the scrap industry have increased risk of exposure to toxic metals including cadmium and mercury.

Concrete Block Facilities. Industries which manufacture and utilize cement release about 5% of global carbon emissions (most notably CO₂) and consume high amounts of energy (Huntzinger & Eatmon, 2009). The production of concrete involves the mixing of cement with fine aggregate (e.g. sand), coarse aggregate (e.g., gravel, crushed stone, or iron blast furnace slag), water and, in some cases, small amounts of chemicals known as admixtures or pozzolan minerals (e.g., fly ash, silica fume) (Office of Air Quality Planning and Standards, Office of Air and Radiation, & US EPA, 2006). Chemical dust (a visible pollutant of cement and pozzolans) is released in considerable amounts by concrete production. Cement or concrete plant emissions can be classified as fugitive (not released via a vent or stack, e.g. dust from stockpiles, materials handling, and PM from vehicular movements) or point source emissions (released through a single point

source, via a vent or stack, into the atmosphere) (Gupta, Majumdar, Trivedi, & Bhanarkar, 2012).

Potential sources of PM and VOC emissions from concrete plants include raw material handling, storage, bulk loading and packaging of final product. Also, particulates released from cement industry fall within 0.05 to 5.0 microns in diameter, while, plants without dust control technology emit particles less than 10 and 2.5 microns (Gupta et al., 2012; Schuhmacher, Domingo, & Garreta, 2004). Currently, there is limited information on the emission of PM_{2.5} and VOCs from cement and concrete batching plants; however, crystalline silica, lime, gypsum, nickel, cobalt and chromium compounds, all of which are detrimental to human health, are found in cement (Gupta et al., 2012). Research has shown linkages between exposure to cement dust and adverse effects on human health. Construction workers exposed to inorganic dust (e.g., asbestos, man-made material fibers, cement, concrete and quartz) had increased chronic obstructive pulmonary disease (COPD) mortality (Bergdahl et al., 2004). Also, concrete and cement workers had a higher risk of COPD and nonspecific lung disease because of exposure to inorganic dust (Heederik, Kromhout, Burema, Biersteker, & Kromhout, 1990; Hnizdo, Sullivan, Bang, & Wagner, 2002). Blue-collar workers (e.g., contractors, plumbers, construction and cement workers) exposed to inorganic dust have increased risks of developing IgG4-related diseases (i.e., autoimmune pancreatitis) (de Buy Wenniger, Culver, & Beuers, 2014). One study found an increased risk in hospitalizations for cardiovascular or respiratory illnesses due to exposure from cement plant emissions, with children being more susceptible (Bertoldi et al., 2012). Residing near a cement plant leads to an increased risk of mucous membrane of the eye and respiratory system from exposure to emissions (including particulate matter) (Mehraj, Bhat, & Balkhi, 2013; Nkhama, Ndhlovu, Dvonch, Siziya, & Voyi, 2015).

Traffic-Related Air Pollution (TRAP). PM emissions from road transport are classified based on the method of formation. It is assumed generally that the principal method of PM formation is via combustion of fuels (gasoline and diesel) through internal combustion engines which release emission via the vehicle's tailpipe (Alvarez-Vázquez, García-Chan, Martínez, & Vázquez-Méndez, 2017; Kim, Kabir, & Kabir, 2015; Mustafic et al., 2012; US EPA, 2015). However, total road transport emissions encompass the relationships between vehicles, road surfaces and the use of brakes. These interactions generate PM in the form of non-exhaust emissions. Non-exhaust emissions result from tire wear, brake wear, road surface wear (occurs via mechanical abrasion, grinding, crushing and corrosion processes) and resuspension of the dust on road surfaces (Mustafic et al., 2012; US EPA, 2015). Exhaust emissions contribute fine particulate matter (PM_{2.5} less than 2.5 microns in size) while non-exhaust emissions contribute coarse particulate (PM_{2.5-10}; ranging in size from 2.5-10 microns) into the atmosphere (Alvarez-Vázquez et al., 2017; Mustafic et al., 2012).

As an important source of air pollutants, vehicular emissions have been associated with particulates, carbon monoxide (CO), sulfur oxides (SO_x), nitrogen oxides (NO_x), heavy metals, particulate matter (PM), volatile organic compounds (VOCs), and polyaromatic hydrocarbons (PAHs) (US EPA, 2015). These air pollutants can lead to a wide range of adverse health effects including acute and chronic cough, bronchitis, asthma, reduced lung function, lung cancer, cardiovascular disease, decreased cognitive function, emergency visits and increase in hospitalizations in children, and increased mortality risk after hospitalization with acute heart failure (Afroz, Hassan, & Ibrahim, 2003; Arias-Ortiz, Icaza-Noguera, & Ruiz-Rudolph, 2017; Fernández-Navarro, García-Pérez, Ramis,

Boldo, & López-Abente, 2017; Mecklenburg County, North Carolina, 2014; NJDEP, 2018; TCEQ, 2018; US EPA, 2016). Maternal exposure to TRAP can increase the risk of preeclampsia and preterm birth. Exposure to PM can lead to premature death in people with lung or heart disease, increase in stroke attack, increases in blood pressure, central nervous system diseases such as Alzheimer's, decreased life expectancy and cancer (Colville, Hutchinson, Mindell, & Warren, 2001; Hirsch et al., 1999; O'Connor et al., 2008; Shah et al., 2013; Wjst et al., 1993).

III. TARGET-AREA PROFILE. The environmental and demographic results from an Environmental Protection Agency (US EPA) EJScreen review of the Cheverly-Capitol Heights area reveal the following. Cheverly was ranked in the 35th percentile for particulate matter, 84th percentile for diesel particulate matter and 85th percentile for air toxic cancer risk (Table 1). Additionally, 75% of the population includes people of color, 25% of the population are listed as low-income, and 14% of the population have less than a high school education. Capitol Heights was ranked in the 32nd percentile for particulate matter, 72nd percentile for diesel particulate matter and 59th percentile for air toxic cancer risk (Table 5) with 99% of the population composed of people of color, 23% of the population listed as low-income and 18% of the population having less than a high school education.

IV. GOALS OF THE AGREEMENT. The UMD team will collaborate with the towns of Cheverly and Capitol Heights to build a hyper local air quality monitoring network near industrial sources of concern and spaces of common, public value (including schools, community centers, libraries, parks, and churches and other places of worship). These locations will serve as stationary monitoring sites.

This network will utilize two types of air quality sensors: 1) the Purple Air PA-II and 2) the Aeroqual AQY1. These sensors monitor the air quality 24 hours per day with adjustable settings to measure data at 1, 5, 10, 15, 20, and 30 minute intervals; or 1, 2, 4, 8, 12, and 24 hour intervals. Purple Air sensors are real-time, fixed sensors which utilize dual laser beam technology to detect particulate matter (PM_{10} , $PM_{2.5}$, and PM_1) particles by their reflectivity, calculating particle weights from these counts. Aeroqual AQY1 sensors are small and cost-effective fixed sensors which monitor particulate matter, ozone, and nitrogen dioxide in addition to temperature, humidity, and dewpoint. Like the PA-II sensors, the AQY1 uses laser-scattering technology to detect particulates but only in the $PM_{2.5}$ size range. The benefit of these units over the PA-II is the capability to store thousands of data points on the 16GB SDHC memory card in case of a cellular network outage. The sensors will be installed in shaded areas, away from direct sunlight and away from vents and other sources of pollution. These sensors will be attached to the exterior walls of houses and buildings in affected neighborhoods with each sensor placed eight to ten feet off of the ground. Data collected by these sensors is transmitted to a cloud database where it can be stored and downloaded via the sensor manufacturer's website. Each sensor will be connected to a power source (most likely the building's electrical power) and Wi-Fi (via dedicated cellular mobile hotspots or building's internet).

V. **OBJECTIVES AND DELIVERABLES**

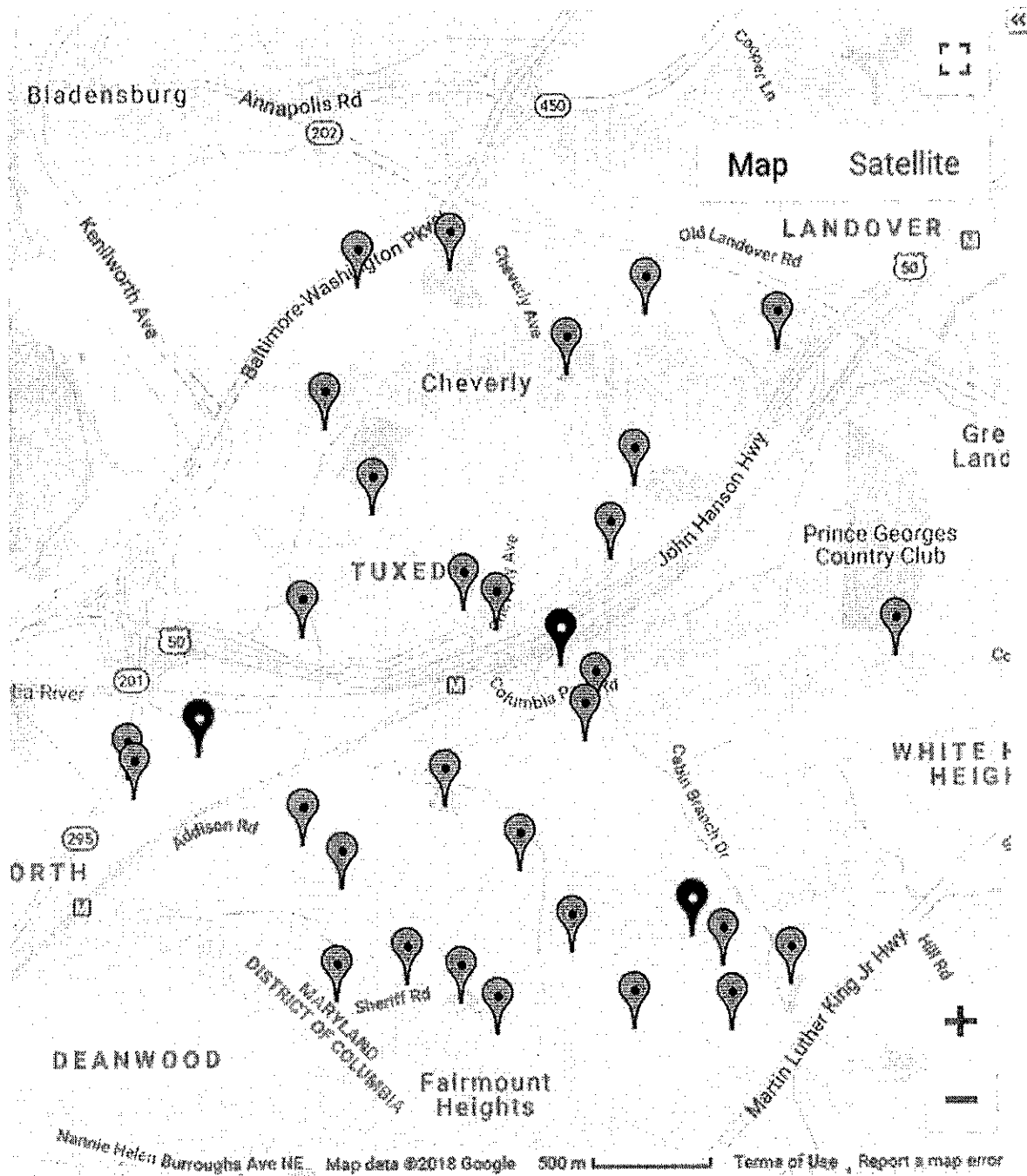
Objective 1: Collaborate with community leaders to develop an Air Quality Monitoring Plan.

The research team will work with the Mayor of Cheverly as well as local community leaders and residents to determine specific air monitoring locations for the sensors. Primary monitoring will occur near the following pollution sources: World Recycling Co. E-waste Recycling Facility, the Smith and Sons Scrap Metal Recycling Facility, and LaFarge North America Concrete Block Plant. Additional locations should include areas of high community significance at human receptor sites near the stationary pollution sources and heavily trafficked roadways (such as schools, parks, homes, churches, libraries). To determine spatial gradient of air quality, sensors will be located close and far away from the sources of pollution. We will meet with the Mayor to obtain feedback on the locations for the sensors.

Deliverable(s). Partners will develop selection criteria based on community priorities and utilize the EPA's EJScreen tool to select sensor locations. Partners will produce both a map for visualizing these sites as well as a summarized list of locations and rationale for selecting them. See following map for possible locations of stationary monitors in communities of concern.

Outcome start date: February 1, 2019

Outcome end date: February 28, 2019



33 pins

Figure 1. Sensor Locations (n=30) for Cheverly-Bladensburg Air Quality Monitoring Network. This map indicates stationary sources of concern (black pins, n=3), Aeroqual AQY1 fixed sensors collocated with Purple Air mobile sensors (red pins, n=5), and ancillary Purple Air mobile sensors for local and hyperlocal air quality monitoring (purple pins, n=25). See Table 6 for complete list of proposed monitoring locations.

Objective 2: Sensor Deployment. Utilizing the Air Monitoring Plan established under Objective 1, members of the research team will install sensors in two phases. Prospectively, the major elements of the monitoring plan will be fenceline and

neighborhood monitoring. Fenceline monitoring captures emissions near the periphery of industrial facilities. Fenceline monitoring will be conducted near the Joseph Smith and Sons and the World Recycling Center in Cheverly and near the concrete batch plant on Sheriff Road. While, neighborhood monitoring will occur at points farther away from facilities such as intersections with industrial and commuter traffic and points of interest where residents can be exposed to air pollution. This monitoring will help us assess the spatial gradient of air pollutants of concern.

Phase I - Deploy Aeroqual Sensors. We will install five Aeroqual sensors at the fenceline of the industrial sources of concern. Smith & Sons Metal Recycling and World Recycling Co. will have two sensors each. While, one sensor will be installed near the Lafarge North America concrete batch plant.

Phase II - Deploy Purple Air Sensors. Also, five Purple Air sensors will be installed at the fence-line of each facility and will be collocated with the Aeroqual sensors. Twenty-one Purple Air sensors will be placed at human receptor locations which will be identified and will be agreed on with the Mayor and other stakeholders. Residential monitoring will take place at schools, libraries, parks, town halls, churches, and other identified locations (see map and locations below).

Deliverable(s): Research team will install five (5) Aeroqual AQY1 sensors and twenty-four (25) Purple Air PA-II sensors at locations agreed upon in the Air Quality Monitoring Plan.

Outcome Start Date: March 1, 2019

Outcome End Date: May 31, 2019

Objective 3. Data Collection and Sensor Maintenance. We will check the sensors daily on the manufacturer's website to ensure that they are up and running. Also, we will visit the monitoring sites monthly to check the sensors and clean the external surfaces if needed. During our monthly visits, we will examine the site features to ensure that there have not been any significant changes to the landscape. Furthermore, we may switch the sensors out with new sensors due to drift or failure as needed based on advice from the manufacturers.

Deliverable(s): Research team will perform installation, initial set-up, and periodic maintenance of air quality monitoring network. All such events will be recorded in a data log and made available to Mayor and community members for purposes of transparency and future instruction.

Outcome start date: June 1, 2019

Outcome end date: May 31, 2024

Objective 4. Transparent Data Management, Interpretation, and Dissemination.
Data Management. To meet the US EPA's regulatory data requirements of at least 75% data completeness--that is, the amount of valid data obtained compared to the amount expected to be obtained--the research team will periodically download data from the sensor manufacturer's cloud server and stored on local servers at both the University of Maryland and the Mayor's Office. In Year 1, data will be downloaded on a weekly basis and once every other week thereafter. At each download interval, data will be analyzed for potential errors and discrepancies. All data collected through this project will be made

accessible to stakeholders via a central database. The research team will work with the town's data specialists (where available) to determine what virtual hosting options can be used. Potential platforms include: Google Drive, Box, and Dropbox, as well as the unique project website.

Data Interpretation. The team will meet with the Mayor of Cheverly and community members to determine desired and most effective ways of displaying and interpreting data for the target community. Potential displays include graphs of pollutant concentrations over time (revealing daily, weekly, seasonal, or yearly variation in concentrations) and maps plotting data from the sensors to display geospatial patterns in concentrations. The research team will also use the EPA's Excel-based macro analysis tool to compare data from low-cost sensors with data from regulatory monitors, and interpret their results (US EPA, 2018b). Given that all instruments have bias, accuracy, and error issues, the team will pay special attention to clearly explaining these issues to the Mayor and community members, so all parties understand the limits of the collected data--particularly regarding the effects of influencing variables such as meteorological parameters (temperature, pressure, humidity, wind speed, and wind direction) on pollutant concentrations.

Data Dissemination. Following guidelines from the US EPA's Citizen Science Toolkit, the research team will work with the Mayor of Cheverly and other stakeholders to design dissemination efforts to ensure maximum report back to local residents (US EPA, 2018a). For example, pollution findings can be explained in terms of the color-coded Air Quality Index (AQI) table developed by the US EPA to translate pollution measurements into potential for effects to individuals (Fig. 2; US EPA, 2014).

Air Quality Index Levels of Health Concern	Numerical Value	Meaning
Good	0 to 50	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate	51 to 100	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	151 to 200	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	201 to 300	Health warnings of emergency conditions. The entire population is more likely to be affected.
Hazardous	301 to 500	Health alert: everyone may experience more serious health effects.

Figure 2. Air Quality Index developed by the United States Environmental Protection Agency (US EPA).

The research team will utilize the following platforms for disseminating data: technical reports and infographics (available as downloadable PDFs), a unique data portal website providing near real-time access to air pollution data, social media (including project-specific Facebook, Instagram, and Twitter pages). This will encourage access on both computers and mobile devices. In addition, we plan to share information through email and text alerts with local community centers, libraries, and places of worship as local dissemination venues.

Deliverables: Research team will share data from the air monitoring network with the Mayor of Cheverly and local stakeholder groups through community reports, technical reports, social media pages, newsletters, and quarterly reports. The team will also hold monthly meetings with the Mayor and the residents as part of report back sessions and discuss challenges and concerns associated with the project in the first year of operating the hyperlocal monitoring network and quarterly meetings from years 2-5+. The team will also establish and manage an online helpline platform (e.g., a project contact e-mail account) where residents and interested parties can direct questions, comments, and other feedback regarding data.

Outcome start date: June 1, 2019
 Outcome end date: May 31, 2024

VI. ADMINISTRATION. Dr. Wilson will act as the principal investigator and project manager for the air quality monitoring network. An advisory board for this project will be developed with stakeholders from the communities of concern including the Mayor’s Office. The advisory board will provide feedback during all stages of the monitoring project. The board will meet monthly via teleconference to discuss research progress, results, and share in decision-making.

VII. TIMELINE

We anticipate that the project will begin in February 2019. Long-term monitoring will continue at these sites for the next 1-5 years.

	February 2019	March 2019	April 2019	May 2019	June 2019 - May 31, 2024
Objective 1	CAB, Air Monitoring Network Plan				
Objective 2		Deploy Sensors			
Objective 3					Collect and Manage Data
Objective 4					Interpret and Share Data

VIII. BUDGET AND JUSTIFICATION

Item	Description	Year 1 Cost	Years 2-5
Monitoring Devices			
Purple Air Sensors (PA-II)	25 units at \$230/unit	\$ 5750	
Aeroqual AQY1 Sensors (AQY1)	5 units at \$3000	\$15000	
Wi-Fi Connectivity for PA-IIs			
T-mobile or Verizon hotspot with 2G Data Plan	25 units at \$20/month/year (Only needed if monitoring location does not already have Wi-Fi)	\$6,000	\$24,000
Personnel Costs	Costs of weekly checks on the instruments, instrument maintenance, data download, and data interpretation. Estimated number of hours/week in year 1 (25 hours/week at \$20/hour); Estimated hours/week/year in years in years 2-5 (15 hours/week at \$20/hour); Estimated costs for year 1 (\$26,000); Estimated costs/year for years 2-5 (\$15,600/year)	\$13,000	\$30,000
Website- stakeholders can visit this site to see daily, weekly, and monthly readings in the form of maps, tables, and graphs	Initial Development of Website- Year 1, website maintenance years 2-5 (\$1500/year)	\$5,000	\$6,000

Total		\$44,750	\$60,000
--------------	--	----------	----------

IX. TABLE(S)

Table 1. Environmental and Demographic Indicators for Cheverly, Maryland (EJScreen)

Selected Variables	Value	State Average	Percentile in State	EPA Region Average	Percentile in EPA Region	USA Average	Percentile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	9.84	9.89	35	9.97	46	9.53	54
Ozone (ppb)	46.8	46.1	86	44.3	95	42.5	84
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	1.52	1.1	82	0.921	80-90th	0.938	80-90th
NATA* Air Toxics Cancer Risk (risk per MM)	54	45	84	42	80-90th	40	90-95th
NATA* Respiratory Hazard Index	2.7	2	87	1.8	80-90th	1.8	80-90th
Traffic Proximity and Volume (daily traffic count/distance to road)	1100	580	82	360	91	600	87
Lead Paint Indicator (% pre-1960s housing)	0.45	0.29	74	0.36	66	0.29	73
Superfund Proximity (site count/km distance)	0.056	0.1	55	0.14	46	0.12	54
RMP Proximity (facility count/km distance)	2.9	0.63	94	0.6	96	0.72	95
Hazardous Waste Proximity (facility count/km distance)	1.4	1.8	62	1.3	72	4.3	71
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	2.8E-05	0.19	52	100	43	30	52
Demographic Indicators							
Demographic Index	57%	35%	81	30%	87	36%	79
Minority Population	84%	48%	78	32%	90	38%	86
Low Income Population	30%	23%	71	28%	59	34%	49
Linguistically Isolated Population	2%	3%	61	2%	68	4%	56
Population with Less Than High School Education	13%	10%	71	11%	67	13%	60
Population under Age 5	9%	6%	77	6%	80	6%	76
Population over Age 64	10%	14%	34	15%	26	14%	31

Table 2. Environmental and Demographic Indicators around Smith & Sons Metal Recycling Cheverly, Maryland (EJScreen)

Selected Variables	Value	State Average	Percentile in State	EPA Region Average	Percentile in EPA Region	USA Average	Percentile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	9.8	9.81	39	9.97	45	9.53	53
Ozone (ppb)	46.8	46.8	30	44.3	95	42.5	84
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	1.63	2.5	18	0.921	80-90th	0.938	80-90th
NATA* Air Toxics Cancer Risk (risk per MM)	52	60	8	42	80-90th	40	80-90th
NATA* Respiratory Hazard Index	2.7	3.4	5	1.8	80-90th	1.8	80-90th
Traffic Proximity and Volume (daily traffic count/distance to road)	910	470	87	360	89	600	86
Lead Paint Indicator (% pre-1960s housing)	0.66	0.61	48	0.36	79	0.29	85
Superfund Proximity (site count/km distance)	0.14	0.23	43	0.14	76	0.12	80
RMP Proximity (facility count/km distance)	2.1	0.64	97	0.6	93	0.72	91
Hazardous Waste Proximity (facility count/km distance)	0.95	3.6	1	1.3	63	4.3	63
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.00073	0.57	13	100	60	30	66
Demographic Indicators							
Demographic Index	68%	48%	73	30%	92	36%	87
Minority Population	93%	64%	70	32%	94	38%	92
Low Income Population	42%	32%	66	28%	78	34%	68
Linguistically Isolated Population	1%	4%	45	2%	59	4%	48
Population with Less Than High School Education	12%	10%	61	11%	65	13%	59
Population under Age 5	7%	6%	59	6%	62	6%	57
Population over Age 64	12%	11%	65	15%	38	14%	45

**Table 3. Environmental and Demographic Indicators around World Recycling Co.,
Cheverly, Maryland (EJScreen)**

Selected Variables	Value	State Average	Percentile In State	EPA Region Average	Percentile in EPA Region	USA Average	Percentile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	9.82	9.89	34	9.97	45	9.53	53
Ozone (ppb)	46.8	46.1	86	44.3	95	42.5	84
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	1.41	1.1	75	0.921	80-90th	0.938	80-90th
NATA* Air Toxics Cancer Risk (risk per MM)	53	45	81	42	80-90th	40	80-90th
NATA* Respiratory Hazard Index	2.6	2	84	1.8	80-90th	1.8	80-90th
Traffic Proximity and Volume (daily traffic count/distance to road)	820	580	77	360	88	609	85
Lead Paint Indicator (% pre-1960s housing)	0.56	0.29	79	0.36	74	0.29	80
Superfund Proximity (site count/km distance)	0.072	0.1	64	0.14	54	0.12	62
RMP Proximity (facility count/km distance)	3.1	0.63	95	0.6	97	0.72	96
Hazardous Waste Proximity (facility count/km distance)	1.1	1.8	56	1.3	67	4.3	66
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	3.7E-08	0.19	24	100	29	30	40
Demographic Indicators							
Demographic Index	55%	35%	78	30%	85	36%	77
Minority Population	83%	48%	78	32%	89	38%	86
Low Income Population	26%	23%	65	28%	52	34%	42
Linguistically Isolated Population	3%	3%	65	2%	72	4%	60
Population with Less Than High School Education	12%	10%	70	11%	65	13%	59
Population under Age 5	8%	6%	69	6%	73	6%	69
Population over Age 64	11%	14%	43	15%	34	14%	40

Table 4. Environmental and Demographic Indicators for Capitol Heights, Maryland (EJScreen)

Selected Variables	Value	State Average	Percentile in State	EPA Region Average	Percentile in EPA Region	USA Average	Percentile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	9.7	9.81	17	9.97	42	9.53	50
Ozone (ppb)	46.7	46.8	14	44.3	94	42.5	84
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	1.42	2.5	6	0.921	80-90th	0.938	80-90th
NATA* Air Toxics Cancer Risk (risk per MM)	52	60	9	42	80-90th	40	80-90th
NATA* Respiratory Hazard Index	2.7	3.4	3	1.8	80-90th	1.8	80-90th
Traffic Proximity and Volume (daily traffic count/distance to road)	140	470	29	360	58	600	56
Lead Paint Indicator (% pre-1960s housing)	0.43	0.61	25	0.36	65	0.29	72
Superfund Proximity (site count/km distance)	0.13	0.23	35	0.14	73	0.12	78
RMP Proximity (facility count/km distance)	1.1	0.64	87	0.6	83	0.72	79
Hazardous Waste Proximity (facility count/km distance)	1.2	3.6	6	1.3	67	4.3	67
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.92	0.57	87	100	94	30	95
Demographic Indicators							
Demographic Index	70%	48%	76	30%	93	36%	88
Minority Population	98%	64%	83	32%	97	38%	96
Low Income Population	41%	32%	64	28%	76	34%	66
Linguistically Isolated Population	1%	4%	43	2%	58	4%	47
Population with Less Than High School Education	17%	10%	77	11%	79	13%	71
Population under Age 5	8%	6%	66	6%	74	6%	70
Population over Age 64	11%	11%	60	15%	35	14%	41

Table 5. Environmental and Demographic Indicators for Lafarge North America Concrete Batch Plant, Sheriff Road, Maryland (EJScreen)

Selected Variables	Value	State Average	Percentile in State	EPA Region Average	Percentile in EPA Region	USA Average	Percentile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	9.75	9.89	30	9.97	43	9.53	52
Ozone (ppb)	46.7	46.1	85	44.3	95	42.5	84
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	1.27	1.1	64	0.921	70-80th	0.938	70-80th
NATA* Air Toxics Cancer Risk (risk per MM)	52	45	77	42	80-90th	40	80-90th
NATA* Respiratory Hazard Index	2.5	2	76	1.8	80-90th	1.8	80-90th
Traffic Proximity and Volume (daily traffic count/distance to road)	62	580	33	360	46	600	43
Lead Paint Indicator (% pre-1960s housing)	0.45	0.29	74	0.36	66	0.29	73
Superfund Proximity (site count/km distance)	0.091	0.1	72	0.14	62	0.12	69
RMP Proximity (facility count/km distance)	2.7	0.63	94	0.6	96	0.72	95
Hazardous Waste Proximity (facility count/km distance)	1.3	1.8	60	1.3	70	4.3	69
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	1.7E-08	0.19	24	100	29	30	40
Demographic Indicators							
Demographic Index	64%	35%	88	30%	90	36%	84
Minority Population	99%	48%	95	32%	97	38%	97
Low Income Population	29%	23%	70	28%	58	34%	48
Linguistically Isolated Population	2%	3%	57	2%	65	4%	53
Population with Less Than High School Education	15%	10%	77	11%	73	13%	66
Population under Age 5	7%	6%	58	6%	62	6%	57
Population over Age 64	13%	14%	51	15%	41	14%	48

Table 6. List of Pollution Sources and Potential Air Quality Monitoring Locations

Site Name	Site Address	Sensor Type
LaFarge North America Concrete Batch Plant*	5850 Sheriff Rd, Capitol Heights, MD 20743	Pollution Source
Joseph Smith & Sons Inc Scrap Metal Recycling	4501 S Street, Capitol Heights, MD 20743	Pollution Source
World Recycling Co	5600 Columbia Park Rd, Cheverly, MD 20785	Pollution Source
Cedar Heights Community Center	1200 Glen Willow Drive, Capitol Heights, MD 20743	Aeroqual AQY1
Community Temple Church	6207 State Street, Cheverly, MD 20785	Aeroqual AQY1
Hosanna Worship Church Christ	1723 Kenilworth Avenue, Capitol Heights, MD 20743	Aeroqual AQY1
Spirit of Peace Baptist Church	4311 R Street, Capitol Heights, MD 20743	Aeroqual AQY1
Boyd Park	1801 64th Avenue, Hyattsville, MD, 20785	Aeroqual AQY1
Gast Park	Parkway Street, Cheverly, MD 20785	Purple Air PA-II
Cheverly East Neighborhood Park	Cheverly, MD, 20785	Purple Air PA-II

Woodworth Park	Cheverly Park Drive, MD, 20785	Purple Air PA-II
Gray Elementary School	4949 Addison Rd, Capitol Heights, MD 20743	Purple Air PA-II
Addison Chapel Apartments	1525 Elkwood Ln, Capitol Heights, MD 20743	Purple Air PA-II
Chapel Oaks County Fire Station	5544 Sheriff Rd, Capitol Heights, MD 20743	Purple Air PA-II
Fairmount Heights Branch Library	5904 Kolb St, Capitol Heights, MD, 20743	Purple Air PA-II
Cheverly Nature Park	Cheverly, MD 20743	Purple Air PA-II
Fairmount Heights Park	5395 Sheriff Rd, Fairmount Heights, MD 20743	Purple Air PA-II
Public Storage	5556 Tuxedo Road, Hyattsville, MD 20781	Purple Air PA-II
Cheverly Police Department/Community Center	6401 Forest Rd, Cheverly, MD 20785	Purple Air PA-II
Gladys Noon Spellman Elementary School	3324 64th Ave, Cheverly, MD 20785	Purple Air PA-II
Cheverly Euclid Street Neighborhood Park	5610 Euclid St, Cheverly, MD 20785	Purple Air PA-II
Hoyer Early Childhood Center	2300 Belleview Ave, Cheverly, MD, 20785	Purple Air PA-II
UM Prince George's Hospital Center	3001 Hospital Dr, Hyattsville, MD 20785	Purple Air PA-II
Jesse Warr Recreation Center	5200 North Englewood Drive, Hyattsville, MD 20785	Purple Air PA-II
Washington Baptist Church	1409 Ivywood Ave, Hyattsville, MD 20785	Purple Air PA-II
Magruder Spring Historic Landmark	2202 Cheverly Avenue, Cheverly, MD 20785	Purple Air PA-II
Victory Temple of Deliverance	909 Nyanga Avenue, Capitol Heights, MD 20743	Purple Air PA-II
Booker T Homes Neighborhood Park	1250 Booker Terrace, Landover, MD 20785	Purple Air PA-II

St Matthew CME Church	923 Cedar Heights Drive, Capitol Heights, MD 20743	Purple Air PA-II
Cathedral of Christ	5354 Sheriff Road, Capitol Heights, MD 20743	Purple Air PA-II
Rising Star Holy Temple	5312 Sheriff Road, Capitol Heights, MD 20743	Purple Air PA-II
Fairmount Heights High School	6501 Columbia Park Road, Hyattsville, MD 20785	Purple Air PA-II
Jesse Warr Recreation Center	5200 North Englewood Drive, Hyattsville, MD 20785	Purple Air PA-II

References

- Afroz, R., Hassan, M. N., & Ibrahim, N. A. (2003). Review of air pollution and health impacts in Malaysia. *Environmental Research*, 92(2), 71–77. [https://doi.org/10.1016/S0013-9351\(02\)00059-2](https://doi.org/10.1016/S0013-9351(02)00059-2)
- Alvarez-Vázquez, L. J., García-Chan, N., Martínez, A., & Vázquez-Méndez, M. E. (2017). Numerical simulation of air pollution due to traffic flow in urban networks. *Journal of Computational and Applied Mathematics*, 326(Supplement C), 44–61. <https://doi.org/10.1016/j.cam.2017.05.017>
- Arias-Ortiz, N. E., Icaza-Noguera, G., & Ruiz-Rudolph, P. (2017). Thyroid cancer incidence in women and proximity to industrial air pollution sources: A spatial analysis in a middle size city in Colombia. *Atmospheric Pollution Research*. <https://doi.org/10.1016/j.apr.2017.11.003>
- Bergdahl, I. A., Torén, K., Eriksson, K., Hedlund, U., Nilsson, T., Flodin, R., & Järvholm, B. (2004). Increased mortality in COPD among construction workers exposed to inorganic dust. *European Respiratory Journal*, 23(3), 402–406. <https://doi.org/10.1183/09031936.04.00034304>
- Bertoldi, M., Borgini, A., Tittarelli, A., Fattore, E., Cau, A., Fanelli, R., & Crosignani, P. (2012). Health effects for the population living near a cement plant: An epidemiological assessment. *Environment International*, 41, 1–7. <https://doi.org/10.1016/j.envint.2011.12.005>
- Colville, R. N., Hutchinson, E. J., Mindell, J. S., & Warren, R. F. (2001). The transport sector as a source of air pollution. *Atmospheric Environment*, 35(9), 1537–1565. [https://doi.org/10.1016/S1352-2310\(00\)00551-3](https://doi.org/10.1016/S1352-2310(00)00551-3)
- de Buy Wenniger, L. J. M., Culver, E. L., & Beuers, U. (2014). Exposure to occupational antigens might predispose to IgG4-related disease. *Hepatology*, 60(4), 1453–1454. <https://doi.org/10.1002/hep.26999>
- Fernández-Navarro, P., García-Pérez, J., Ramis, R., Boldo, E., & López-Abente, G. (2017). Industrial pollution and cancer in Spain: An important public health issue. *Environmental Research*, 159(Supplement C), 555–563. <https://doi.org/10.1016/j.envres.2017.08.049>
- Gupta, R. K., Majumdar, D., Trivedi, J. V., & Bhanarkar, A. D. (2012). Particulate matter and elemental emissions from a cement kiln. *Fuel Processing Technology*, 104(Supplement C), 343–351. <https://doi.org/10.1016/j.fuproc.2012.06.007>
- Heederik, D., Kromhout, H., Burema, J., Biersteker, K., & Kromhout, D. (1990). Occupational Exposure and 25-Year Incidence Rate of Non-Specific Lung Disease: The Zutphen Study. *International Journal of Epidemiology*, 19(4), 945–952. <https://doi.org/10.1093/ije/19.4.945>
- Hirsch, T., Weiland, S. K., von Mutius, E., Safeca, A. F., Gräfe, H., Csaplovics, E., ... Leupold, W. (1999). Inner city air pollution and respiratory health and atopy in children. *The European Respiratory Journal*, 14(3), 669–677.
- Hnizdo, E., Sullivan, P. A., Bang, K. M., & Wagner, G. (2002). Association between Chronic Obstructive Pulmonary Disease and Employment by Industry and Occupation in the US Population: A Study of Data from the Third National Health and Nutrition Examination Survey.

American Journal of Epidemiology, 156(8), 738–746. <https://doi.org/10.1093/aje/kwf105>

Huntzinger, D. N., & Eatmon, T. D. (2009). A life-cycle assessment of Portland cement manufacturing: comparing the traditional process with alternative technologies. *Journal of Cleaner Production*, 17(7), 668–675. <https://doi.org/10.1016/j.jclepro.2008.04.007>

Kim, K.-H., Kabir, E., & Kabir, S. (2015, January). A review on the human health impact of airborne particulate matter - ScienceDirect. Retrieved April 6, 2018, from <https://www-sciencedirect-com.proxy-um.researchport.umd.edu/science/article/pii/S0160412014002992>

Mecklenburg County, North Carolina. (2014). Stationary Sources. Retrieved January 27, 2018, from <https://www.mecknc.gov/LUESA/AirQuality/EducationandOutreach/Documents/2014StationarySources.pdf>

Mehraj, S. S., Bhat, G. A., & Balkhi, H. M. (2013). CEMENT FACTORIES AND HUMAN HEALTH -. *International Journal of Current Research and Review*, 5(18), 47–53.

Mustafic, H., Jabre, P., Caussin, C., Murad, M. H., Escolano, S., Tafflet, M., ... Jouven, X. (2012). Main air pollutants and myocardial infarction: a systematic review and meta-analysis. *JAMA*, 307(7), 713–721. <https://doi.org/10.1001/jama.2012.126>

NJDEP. (2018, January 16). WHAT ARE POINT, AREA, AND MOBILE SOURCES? Retrieved January 30, 2018, from <http://www.nj.gov/dep/airtoxics/sourceso99.htm>

Nkhama, E., Ndhlovu, M., Dvonch, J. T., Siziya, S., & Voyi, K. (2015). Prevalence and Determinants of Mucous Membrane Irritations in a Community Near a Cement Factory in Zambia: A Cross Sectional Study. *International Journal of Environmental Research and Public Health*, 12(1), 871–887. <https://doi.org/10.3390/ijerph120100871>

O'Connor, G. T., Neas, L., Vaughn, B., Kattan, M., Mitchell, H., Crain, E. F., ... Lippmann, M. (2008). Acute respiratory health effects of air pollution on children with asthma in US inner cities. *Journal of Allergy and Clinical Immunology*, 121(5), 1133-1139.e1. <https://doi.org/10.1016/j.jaci.2008.02.020>

Office of Air Quality Planning and Standards, Office of Air and Radiation, & US EPA. (2006, June). Emission Factor Documentation for AP-42 Section 11.12 Concrete Batching. Retrieved January 16, 2018, from <https://www3.epa.gov/ttnchie1/ap42/ch11/bgdocs/b11s12.pdf>

Schuhmacher, M., Domingo, J. L., & Garreta, J. (2004). Pollutants emitted by a cement plant: health risks for the population living in the neighborhood. *Environmental Research*, 95(2), 198–206. <https://doi.org/10.1016/j.envres.2003.08.011>

Shah, A. S., Langrish, J. P., Nair, H., McAllister, D. A., Hunter, A. L., Donaldson, K., ... Mills, N. L. (2013). Global association of air pollution and heart failure: a systematic review and meta-analysis. *The Lancet*, 382(9897), 1039–1048. [https://doi.org/10.1016/S0140-6736\(13\)60898-3](https://doi.org/10.1016/S0140-6736(13)60898-3)

TCEQ. (2018, January 11). Sources of Air Emissions. Retrieved January 30, 2018, from https://www.tceq.texas.gov/airquality/areasource/Sources_of_Air_Pollution.html

US EPA, O. (2015, May 6). Stationary Sources of Air Pollution [Collections and Lists]. Retrieved

January 14, 2018, from <https://www.epa.gov/stationary-sources-air-pollution>

US EPA, O. (2016, June 8). How Mobile Source Pollution Affects Your Health [Overviews and Factsheets]. Retrieved January 14, 2018, from <https://www.epa.gov/mobile-source-pollution/how-mobile-source-pollution-affects-your-health>

US EPA, O. (2018a, February 5). Instruction Guide and Macro Analysis Tool: Evaluating Low-Cost Air Sensors by Collocation with Federal Reference Monitors. Retrieved from <https://www.epa.gov/air-research/instruction-guide-and-macro-analysis-tool-evaluating-low-cost-air-sensors-collocation>

US EPA, O. (2018b, September 26). Air Sensor Toolbox for Citizen Scientists, Researchers and Developers. Retrieved from <https://www.epa.gov/air-sensor-toolbox>.

Wjst, M., Reitmeir, P., Dold, S., Wulff, A., Nicolai, T., von Loeffelholz-Colberg, E. F., & von Mutius, E. (1993). Road traffic and adverse effects on respiratory health in children. *BMJ : British Medical Journal*, *307*(6904), 596–600.