

# Petition Processing Statistics Report

Number :20-2019-8 Title :Amends Charter, changes method for electing mayor and city councilors. Types : Initiative-County

## Petition Information

**Petition Name :** Amends Charter, changes method for electing mayor and city councilors.

**Petition Date :** 07/04/2019

**Date Filed :** 06/04/2019

**End Circulation Date :** 10/14/2019

**Minimum Signatures Required :** 8091

**Accepted Of Minimum :** ( 20.07% )

**Total Signatures Processed :** 2083

## Processing Summary Sample: All

**Total Accepted Signatures :** 1624 (78% ) **Of Those Processed**

**Total Rejected Signatures :** 459 (22% ) **Of Those Processed**

Accepted Reason	Total	(% Rejected)
Valid Signature	1619	(99.69%)
Accepted - Duplicate	5	(.3%)

Rejected Reason	Total	(% Rejected)
Inactive Eric	1	(.2%)
Inactive NCOA	6	(1.3%)
Out of County	31	(6.7%)
Not Registered	46	(10%)
Out of District	247	(53.8%)
Pending when signed	6	(1.3%)
Inactive When Signed	1	(.2%)
Inactive Returned VNC	13	(2.8%)
Signatures Do Not Match	63	(13.7%)
Illegible Signer Information	2	(.4%)
Inactive Challenged Signature	3	(.6%)
Inactive Undeliverable Ballot	27	(5.8%)
17 Years of age- not eligible to sign petitions	5	(1%)
Signed Before Date Registered to Vote (Too Late)	8	(1.7%)

*L. Aune* 10/24/19



**Submission F**

2	20-2019-8			
4	Required number	R	8,091	
5	<b>Stage 1: Verify First Sample from Submission F</b>			
6	Date		10/4/2019	
7	Description	Notation	Number	% Sub F
8	<b>Submission F size</b>	$N_F$	8,173	100.00%
9	<b>Sample F1</b>			
10	Sample size	$n_{F1}$	818	10.01%
11	# valid signatures	$y_{F1}$	629	
12	Electors with multiple signatures			
13	#pairs	$FF_1$	2	
14	#triplicates	$FFF_1$	0	
16	<b>Equations</b>			
17	Proportion valid	$\bar{y}_{F1} = y_{F1}/n_{F1}$	0.7689	
18	Expansion factor	$F_{F1} = N_F/n_{F1}$	9.9914	
19	# valid signatures	$Y_{F1} = F_{F1} * y_{F1}$	6,284.62	76.89%
20	# multiple signatures	$D_{F1} = F_{F1} * F_{F1} * (e_2 + e_3) + F_{F1} * e_3$	199.66	2.44%
21	# valid signatures in Sample F1	$M_{F1} = Y_{F1} - D_{F1}$	6,084.96	74.45%
22	Margin of Error		290.23	3.55%
23	$MOE = 1.645 * \sqrt{\{[N_F(N_F - n_{F1})/n_{F1}] * [\bar{y}_{F1} * (1 - \bar{y}_{F1}) + D_{F1}(1/n_{F1} + (-3 + 4 * \bar{y}_{F1})/N_F)\]}$			
25	Lower confidence limit for M	$M_L = M_{F1} - MOE$	5,794.73	70.90%
26	Is $M_L \geq$ required number:	8,091	No	-2,296.27
28	<b>Stage 2: Verify Second Sample from Submission F</b>			
29	<b>Sample F2</b>			
30	Sample size	$n_{F2}$	819	10.02%
31	# valid signatures	$y_{F2}$	638	
32	Electors with multiple signatures			
33	#pairs	$FF_2$	1	
34	#triplicates	$FFF_2$	0	
35	<b>Sample F (combined sample)</b>			
36	Sample size	$n_F = n_{F1} + n_{F2}$	1,637	20.03%
37	# valid signatures	$Y_F = y_{F1} + y_{F2}$	1,267	
38	Electors with multiple signatures			
39	#pairs	$e_{F2} = FF_1 + FF_2$	3	
40	#triplicates	$e_{F3} = FFF_1 + FFF_2$	0	
42	<b>Equations</b>			
43	Expansion factor	$F_F = N_F/n_F$	4.9927	
44	# valid signatures	$Y_F = F_F * y_F$	6,325.71	77.40%
45	# multiple signatures	$D_F = F_F * F_F * (e_{F2} + e_{F3}) + F_F * e_{F3}$	74.78	0.91%
46	# electors signing Submission F	$M_F = Y_F - D_F$	6,250.93	76.48%
47	Is $M_F \geq$ required number:	8,091	No	-1,840.07

**Submission S**

2 20-2019-8

4	Required number	R	8,091	
5	<b>Stage 2 Description</b>	Notation	Number	
6	Submission F size	N <sub>F</sub>	8,173	100.00%
7	Expansion factor F	F <sub>F</sub>	4.992669517	
8	# valid signatures in Submission F	Y <sub>F</sub>	6,325.71	77.40%
9	# duplicates in Submission F	D <sub>F</sub>	75	0.91%
10	# electors signing Submission F	M <sub>F</sub>	6,250.93	76.48%

12 **Stage 3: Verify the Sample from Submission S**

13 Date 10/23/2019

14	Description	Notation	Number	% Sub S
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15 **Submission S size** N<sub>S</sub> 2,223 100.00%

16 **Sample S**

17 Sample size n<sub>S</sub> 446 20.06%

18 # valid signatures y<sub>S</sub> 357

19 Electors with multiple signatures

20 # pairs FS (e<sub>FS11</sub>) 2

21 SS (e<sub>FS02</sub>)

23 # triplicates FSS (e<sub>FS12</sub>) 0

24 SSS (e<sub>FS03</sub>)

25 FFS (e<sub>FS21</sub>)

26 **Equations**

27 Expansion factor F<sub>S</sub> = N<sub>S</sub>/n<sub>S</sub> 4.9843

28 # valid signatures Y<sub>S</sub> = F<sub>S</sub>\*y<sub>S</sub> 1,779.40 80.04%

30 **Combined Submissions** Notation Number % Subs F & S

31 # of signatures in Submissions F & S N = N<sub>F</sub> + N<sub>S</sub> 10,396.00 100.00%

32 # electors signing Submission F or S Y = Y<sub>F</sub> + Y<sub>S</sub> 8,105.11 77.96%

33 # electors with multiple signatures in Submission F 74.78 0.91% of Sub F

34  $D_F = (N_F/n_F) * (N_F/n_F) * (e_{F2} + e_{F3}) + (N_F/n_F) * e_{F3} + (N_S/n_S) * e_{FS21}$

35 # electors with multiple signatures in Submission S 0.00 0.00% of Sub S

36  $D_S = (N_S/n_S) * (N_S/n_S) * (e_{S2} + e_{S3}) + (N_S/n_S) * e_{S3}$

37 # electors with multiple signatures in Submission F or S 49.77 2.24% of Sub S

38  $D_{FS} = (N_F/n_F) * (N_S/n_S) * (e_{FS11} + e_{FS12}) + (N_S/n_S) * e_{FS12}$

39 # electors with multiple signatures in Submission F & S 124.55 1.20%

40  $D = D_F + D_S + D_{FS}$

42 # electors signing Submission F or S M = Y - D 7,980.56 76.77%

43 Is M >= required number: 8,091 No -110.44