

2023

Falcon Heights Recycling Report

FALCON
HEIGHTS



Greg & Willie Tennis
Tennis Sanitation LLC.
1/31/2024

Prepared by: Sierra Gress



Index of Recycling Report

Letter of Purpose.....	Page 3
Recycling Data Summary.....	Page 4
Recycling Data (Single Family).....	Page 5
Recycling Data (Multi-family).....	Page 6
Multi-family individual summary letter.....	Page 7
Inquiries and Linens Summary.....	Page 8
Composite Study.....	Page 9
Environmental Impact Analysis.....	Page 10
Market Report - the end markets.....	Page 11
Summary of Year-end Recycling Report.....	Page 12

Appendix of Recycling Report

Recycling Report Summary (ALL).....	Appendix A
Recycling Report (Multi-family).....	Appendix B
Monthly Recycling Report Letter (Example).....	Appendix C
Monthly Multi-family Report Data (Example).....	Appendix D
Monthly Single Family Report Data (Example)....	Appendix E

January 31st, 2024

City of Falcon Heights
2077 Larpenteur Avenue West
Falcon Heights, MN 55113-5594



RE: LETTER OF PURPOSE

Dear City of Falcon Heights,

This 2023 Year-end recycling report has been prepared for the City of Falcon Heights.

The report contains summaries of recycling data for both single family and multi-family dwellings. Including but limited to: inquiries, composite study information, environmental impact report and a market report of recycling markets.

The data in this report will assist us in developing a better understanding of the past, present and future progress of the City of Falcon Heights recycling program.

Sincerely,

Greg & Willie Tennis

Greg and Willie Tennis
Tennis Sanitation



RECYCLING DATA SUMMARY

In this report, we have compiled annual data from both single family and multi-family dwellings (SEE APPENDIX A). This data includes:

- Net tonnage of all residential and multi-family dwellings combined (tan/black)
- Break-out of single family tonnage and set-out rates (yellow)
- Break-out of multi-family tonnage (blue)
- Separate measurement of weights for linens (APPENDIX A)
- Break-out of single family recycling materials by type and weight (yellow)
- Break-out of multi-family recycling materials by type and weight (blue)
- Break-out of combined tonnages (green)
- Inquiries tracked per month (bottom of APPENDIX A)

The data is compiled from recyclable materials collected from our drivers on a designated Falcon Heights route. Loads are weighed and weights are then compiled over a month's period. Weights are broken out based on a composite ratio of the entire load.



RECYCLING DATA (SINGLE FAMILY)

The Single-Family Data in APPENDIX A (yellow) was compiled from the single-family homes after taking out the multi-family weights. From this data, we can illustrate the weight per home (in lbs.), per month. We also have monitored participation by route. The data from the routes is compiled from the Single-Family data spreadsheet which details each route and the total tons collected (APPENDIX E).

In analyzing the single-family data, we can provide the following observations

2023 Average lbs. per household, per month – 47.67 lbs.

- 2022 average lbs. per household, per month - 48.65 lbs.
- 2021 average lbs. per household, per month - 57.02 lbs.
- 2020 average lbs. per household, per month - 54.55 lbs.
- 2019 average lbs. per household, per month - 46.16 lbs.
- 2018 average lbs. per household, per month - 49.91 lbs.
- 2017 average lbs. per household, per month - 57.61 lbs.
- 2016 average lbs. per household, per month - 53.95 lbs.
- 2015 average lbs. per household, per month - 52.10 lbs.
- 2014 average lbs. per household, per month - 57.54 lbs.
- 2013 average lbs. per household, per month - 54.86 lbs.

2023 annual net total tons collected for single family were 352.36 tons

- 2022 annual total single family - 359.64 tons
- 2021 annual total single family - 421.51 tons
- 2020 annual total single family - 403.20 tons
- 2019 annual total single family - 341.19 tons
- 2018 annual total single family - 368.90 tons
- 2017 annual total single family - 381.96 tons
- 2016 annual total single family - 398.83 tons
- 2015 annual total single family - 385.12 tons
- 2014 annual total single family - 425.36 tons



Other New Data Collected: Participation Percentage of Residents

Additional Trends: Though the weight averages and total tonnage is down from last year's numbers the overall numbers are still similar in comparison to other cities which we service. There are many factors that can affect this number which may include the economy and residents local buying habits.

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	AVG
2023	100%	100%	97%	100%	100%	99%	100%	100%	99%	100%	100%	97%	99%
2022	96%	96%	96%	97%	98%	97%	97%	100%	97%	100%	100%	97%	97%
2021	97%	95%	96%	98%	98%	98%	99%	98%	97%	98%	97%	97%	97%
2020	99%	95%	97%	97%	99%	97%	98%	97%	98%	98%	98%	97%	97%
2019	95%	95%	98%	97%	98%	98%	97%	95%	95%	97%	97%	97%	97%
2018	95%	95%	97%	97%	98%	98%	97%	95%	95%	96%	97%	96%	96%
2017	96%	96%	96%	97%	97%	98%	98%	98%	96%	97%	97%	96%	97%
2016	97%	95%	95%	97%	97%	97%	97%	97%	98%	97%	96%	98%	97%
2015	94%	92%	95%	95%	96%	96%	96%	96%	95%	97%	96%	97%	95%
2014	94%	96%	93%	95%	96%	96%	95%	96%	96%	96%	93%	94%	95%

RECYCLING DATA (MULTI-FAMILY)

The data in APPENDIX A (Blue) is the actual data compiled from the net total weight family homes after factoring-out the single-family weights. From this data we can illustrate the weight per unit (in lbs.) per month. To assist us in providing accurate data, we compile weights on a quarterly basis. This weight is then used to provide us with a fair average of weight generated by each multi-family unit. Our drivers then documented the number of carts dumped at each location on a weekly basis (see APPENDIX D). These weights are then added at the end of each month to provide us with a net total. From the report we can calculate the weight per unit per month.

In analyzing the multi-family data, we can provide the following observations:

2023 average lbs. per unit, per month - 19.02 lbs.

2022 average lbs. per unit, per month - 18.64 lbs.
2021 average lbs. per unit per month - 20.82 lbs.
2020 average lbs. per unit per month - 18.87 lbs.
2019 average lbs. per unit per month - 16.69 lbs.
2018 average lbs. per unit per month - 16.69 lbs.
2017 average lbs. per unit per month - 18.58 lbs.
2016 average lbs. per unit per month - 16.45 lbs.
2015 average lbs. per unit per month - 18.23 lbs.
2014 average lbs. per unit per month - 17.82 lbs.



2023 annual net total tons collected for multi-family - 80.35 tons

2022 annual net total tons collected for multi-family - 78.73 tons
2021 annual net total tons collected for multi-family - 87.92 tons
2020 annual net total tons collected for multi-family - 79.71 tons
2019 annual net total tons collected for multi-family - 72.78 tons
2018 annual net total tons collected for multi-family - 70.49 tons
2017 annual net total tons collected for multi-family - 78.48 tons
2016 annual net total tons collected for multi-family - 69.47 tons
2015 annual net total tons collected for multi-family - 77.00 tons
2014 annual net total tons collected for multi-family - 75.28 tons

How are the weights determined for the multi-family data? We use one truck to collect all multi-family dwellings where we weigh full carts from each property to get a total weight. The total weight is divided by the number of carts emptied to get an average weight, per cart. This data is entered into a multi-family spreadsheet. See APPENDIX D for an example of this report. This data is significant because we can easily separate this data from the total tons collected on each day of collection. The remaining tonnage is then the actual tonnage which comes from the single-family homes.

MULTI-FAMILY INDIVIDUAL SUMMARY LETTER

From the data compiled over the twelve months we can provide each multi-housing property with an accurate summary report of their recycling volumes (APPENDIX B). We also provide them with some information on how their efforts help with the environment along with additional information to assist them in enhancing their recycling efforts.

ENVIRONMENTAL IMPACT ANALYSIS

TENNIS SANITATION

The Hendrickson Senior Living

ESTIMATED TOTAL TONS RECYCLED:

8.17

Total pounds 16344

Dear Property Manager,

Below is a recap of your recycling efforts from last year. Please notice the amount of recycling materials your tenants recycled and the estimated resources you saved from each category.

Our goal in providing you this information is to attempt to increase awareness and overall participation amongst your tenants. We have also enclosed a recycling brochure detailing the acceptable recycling materials.

Also, please contact us if you would like further information on ways to enhance your recycling. You can contact us at 651-459-1887. Awesome job on recycling!!

Thank you for recycling,

Greg & Willie Tennis

2023

Recycling Type	MW total		Resource Saved	Calc/ Resource	Total Resources Saved	
	Tons	Units			Amounts	Type
Paper	5.24	tons	Trees	1 ton = 17 Trees	89.1	trees
Paper	5.24	tons	Electricity	1 ton = 601 Kw Hours	3,150	Kw hours of electricity
Paper	5.24	tons	Oil	1 ton = 1.7 barrels of oil	8.91	barrels of oil
Aluminum	0.41	tons	Ore	1 ton = 4 tons of ore	1.65	tons of ore
Aluminum	0.41	tons	Electricity	1 ton = 14,000 Kw Hours	5,792	Kw hours of electricity
Aluminum	0.41	tons	Oil	1 ton = 40 barrels of oil	16.55	barrels of oil
Tin/bi-metal	0.15	tons	Ore	1 ton = 1.49 tons of ore	0.22	tons of ore
Tin/bi-metal	0.15	tons	Electricity	1 ton = 642 Kw Hours	93	Kw hours of electricity
Tin/bi-metal	0.15	tons	Oil	1 ton = 1.8 barrels of oil	0.26	barrels of oil
Plastics	0.76	tons	Oil	1 ton = 6.3 barrels of oil	4.81	barrels of oil
Plastics	0.76	tons	Electricity	1 ton = 5,774 Kw Hours	3	Kw hours of electricity
Plastics	0.76	tons	Natural Gas	1 ton = 98,000,000 btu's	74,875,411	BTU's of fuel
Glass	1.60	tons	Sand	1 ton = 1,330 tons of sand	2,134	tons of sand
Glass	1.60	tons	Electricity	1 ton = 42 Kw Hours	67	Kw hours of electricity
Glass	1.60	tons	Oil	1 ton = .12 gallons of oil	0.19	barrels of oil
Glass	1.60	tons	Natural Gas	1 ton = 714,000 btu's	1,145,513	BTU's of fuel

Environmental Impact Summary

Resources	Amounts	Units Saved
Trees saved	89	Trees saved

Electricity saved	9,106	Kw Hours saved
-------------------	-------	----------------

Oil saved	31	Barrels of oil saved
-----------	----	----------------------

Natural Gas saved	76,020,924	BTU's of natural gas saved
-------------------	------------	----------------------------

**Disclaimer: The above numbers represent conversions from industrial and recycling markets. These numbers are ESTIMATED resources saved. All calculations are taken from annual total tons from Falcon Heights Year-end Recycling Report.

INQUIRIES SUMMARY

Below are twelve months of data documenting the number of residents that called into our office. The most common calls were comprised of residents asking what additional items they could recycle. Other less common calls were to see if our driver could come back because they forgot to put out their materials in time and the occasional request of how to dispose of hazardous waste.

We are confident that our Customer Service Representatives resolved all inquiries to the resident's satisfaction. The number of inquiries had increased from last year. Our team of CSRs and professional drivers are committed to providing the best service to the City of Falcon Heights. We feel this report is a direct result of our commitment.

Total Inquiries

2023 – 28	2018 – 19
2022 – 20	2017 – 40
2021 – 50	2016 – 71
2020 – 33	2015 – 68
2019 – 27	2014 – 37

LINENS AND SHOES SUMMARY

The 2020 year brought us many challenges, and linen recycling was one of them. Simple Recycling, our linen partner was shut down for multiple months due to the pandemic and not able to pick up linens from our location during that time. When Simple Recycling opened back up they had new regulations that they were able to collect the bagged material but not able to collect it divided by City.

2023 – 16,534 lbs*	2022 - 16,800 lbs*	2021 - 27,840 lbs*	2020 - 29,880 lbs*
2018 - 1,185 lbs	2017 - 16,003 lbs	2016 - 1,125 lbs	2015 - 3,504 lbs

*total linens collected by Tennis for the year



RECYCLING COMPOSITE STUDY

Over the years of the contract, we have done extensive recycling composite studies. We did this by keeping all loads from an entire week from the City of Falcon Heights and process it through our MRF (Material Recovery Facility). Once the material is unloaded from the trucks it is sorted into each category, as listed below. Each of the categories were then weighed and documented. The results of the composite study were then entered back into the monthly reports in which you receive monthly.

As of 2020, we have looked at all the past data that we have collected and have decided to base our composite break-out off of the facility as a whole. We have come to this decision as all the cities that we service, contracted or not, have had very similar ratios of material in their past composite studies.

Why do a composite study?

Having a good understanding of the recycling composition provides us with data that may assist us in adjusting the recycling program to fit the needs of the Residents. With ongoing changes in the economy, cultural and even changes in the home, we can develop more available markets, increase processing technologies to handle more items and enhance educational materials to instruct residents on proper recycling procedures.

Tennis Sanitation, L.L.C.

651-459-1887

"Recycling is Everyone's Future"

RE: COMPOSITE BREAK-OUT PERCENTAGE

Tennis Sanitation is pleased to provide the following composite sample break-out detailing the percentage ratios of each type of recycling category.

TYPE	RATIO %	DESCRIPTION
Cardboard:	30.52%	Includes all cardboard boxes.
Paper:	32.71%	Includes cardboard, paper, newspaper and junk mail
Scrap Metal:	2.10%	Metal pans and misc metal
Large Plastic:	0.64%	Toys, patio furniture and large containers
Z-Bale Plastic:	3.09%	Food and beverage containers
PET Plastic:	4.80%	Food and beverage containers
Tin:	1.81%	Includes all bi-metal and tin cans
NiHot Glass:	16.69%	Includes all clear, brown and green colors
Aluminum:	2.56%	Includes all aluminum cans
Linens	0.03%	Reusable clothing and shoes
Milk Cartons:	0.29%	Beverage cartons
Residuals (Trash):	4.77%	Includes all residuals and trash
	100.00%	Net total recycling for the month

The above percentage break-out of recycling material was based on the annual materials analysis for the facilities recycling stream as a whole.

ENVIRONMENTAL IMPACT ANALYSIS

Using the detailed recycling data from this report, we can provide the City of Falcon Heights with some unique ways that the residents recycling efforts have made a difference. Over the years, recycling markets have been able to recycle more and more items out of the waste stream. They have also been able to determine what resources are saved by recycling various materials.

In this report we were able to convert the types of recycling materials into resources saved.

ENVIRONMENTAL IMPACT ANALYSIS

CITY OF FALCON HEIGHTS RECYCLING

2023

Recycling Type	Tons	Units	Resource Saved	Calc/ Resource	Total Resources Saved	Type
Paper	226	tons	Trees	1 ton = 17 Trees	3,842	trees
Paper	226	tons	Electricity	1 ton = 601 Kw Hours	135,814	Kw hours of electricity
Paper	226	tons	Oil	1 ton = 1.7 barrels of oil	384	barrels of oil
Aluminum	10	tons	Ore	1 ton = 4 tons of ore	40	tons of ore
Aluminum	10	tons	Electricity	1 ton = 14,000 Kw Hours	138,600	Kw hours of electricity
Aluminum	10	tons	Oil	1 ton = 40 barrels of oil	396	barrels of oil
Tin/bi-metal	14	tons	Ore	1 ton = 1.49 tons of ore	21	tons of ore
Tin/bi-metal	14	tons	Electricity	1 ton = 642 Kw Hours	9,110	Kw hours of electricity
Tin/bi-metal	14	tons	Oil	1 ton = 1.8 barrels of oil	26	barrels of oil
Plastics	40	tons	Oil	1 ton = 6.3 barrels of oil	255	barrels of oil
Plastics	40	tons	Electricity	1 ton = 5,774 Kw Hours	162	Kw hours of electricity
Plastics	40	tons	Natural Gas	1 ton = 98,000,000 btu's	3,965,080,000	BTU's of fuel
Glass	69	tons	Sand	1 ton = 1,330 tons of sand	92,063	tons of sand
Glass	69	tons	Electricity	1 ton = 42 Kw Hours	2,907	Kw hours of electricity
Glass	69	tons	Oil	1 ton = .12 gallons of oil	8	barrels of oil
Glass	69	tons	Natural Gas	1 ton = 714,000 btu's	49,423,080	BTU's of fuel

Environmental Impact Summary

Resources	Amounts	Units Saved
Trees saved	3,842	Trees saved

Electricity saved	286,593	Kw Hours saved
-------------------	---------	----------------

Oil saved	1,069	Barrels of oil saved
-----------	-------	----------------------

Natural Gas saved	4,014,503,080	BTU's of natural gas saved
-------------------	---------------	----------------------------



**Disclaimer: The above numbers represent conversions from industrial and recycling markets. These numbers are ESTIMATED resources saved. All calculations are taken from annual total tons from the Year-end Recycling Report.

Market Report

The recycling market always has its ups and downs; much like a roller coaster. Towards the end of 2022, we experienced a significant drop that held through August of 2023. Metal markets remained fairly steady, but demand and movement for some fiber and plastic grades was limited throughout most of the year, until it finally took a turn in a positive direction this past fall. We began to see improvement in the recycling market in September, and it continued to slowly but steadily improve through the end of the year with most plastic grades, as well as paper and cardboard.

The market for recycled glass has remained unchanged, as the only processor in the area charges for glass processing based on quality. Our NiHot machine improves our ability to capture more glass, but it is important to ensure that glass containers are cleaned before being placed in your recycling cart.

2024 Outlook

We are finally seeing some stabilization with the recycling market and hope that it continues to rise as we move into 2024. With the strict regulations on contaminants and clean material, it is important that food containers are rinsed clean, and to ensure that you are only placing items listed in your recycling brochure loosely into the recycling cart.

The proposal of a Mandatory Deposit Program, or "Bottle Bill", raises concerns for the future of curbside recycling. This would encourage the public to bring their plastic and glass bottles as well as cans to be turned in to designated redemption centers instead of being put in with residential single sort recycling, thus significantly reducing volumes and potentially ending curbside recycling all together. We remain hopeful this will not pass and will continue supporting comprehensive recycling programs such as ours at Tennis.



SUMMARY OF YEAR-END RECYCLING REPORT

The 2023 Falcon Heights Year-end Recycling Report provides up-to-date information from the City's recycling activities over the past year. Each section of this report reflects the various ways data was collected, entered, and calculated to contribute to meeting our combined goals.

In this report, we have illustrated the composition of recyclables and itemized volumes of recyclables from both single family and multi-family dwellings as they relate to each break-out of each separate commodity. We also provide information on how the City's recycling efforts will impact our environment.

This year, Falcon Heights's average participation rate was 99% participation rate. Both single family tonnages as well as multi-family recycling volumes have remained steady and consistent with other Municipalities.

In 2024, we will maintain the comprehensive recycling program we offer with the additional types of plastics, metals and linens.

With the support of the City of Falcon Heights we will maintain these high standards of recycling for the single family and multi-family dwellings.



APPENDIX A - RECYCLING SUMMARY (ALL DATA)

2023 FALCON HEIGHTS RECYCLE TONNAGE DATA	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	NET TOTALS		
MONTHLY DATA/RT/TE	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	TYPE
Single Family RECYCLED MATERIALS	Percentage Break-out												TONS	Description	
Cardboard:	9.24	7.82	10.53	8.53	8.61	11.41	8.33	8.82	10.70	8.49	9.16	11.56	113.20	TONS	
Paper:	9.08	7.69	10.35	8.39	8.46	11.22	8.19	8.67	10.52	8.35	9.01	11.37	111.30	TONS	
Scrap Metal:	0.65	0.55	0.74	0.60	0.60	0.80	0.58	0.62	0.75	0.60	0.64	0.81	7.94	TONS	
Large Plastic:	0.29	0.24	0.33	0.26	0.27	0.35	0.26	0.27	0.33	0.26	0.28	0.36	3.50	TONS	
Z-Bale Plastic:	0.95	0.80	1.08	0.87	0.88	1.17	0.85	0.90	1.10	0.87	0.94	1.18	11.59	TONS	
PET Plastic:	1.46	1.23	1.66	1.35	1.36	1.80	1.31	1.39	1.69	1.34	1.45	1.83	17.87	TONS	
Tin:	0.51	0.43	0.58	0.47	0.47	0.63	0.46	0.49	0.59	0.47	0.51	0.64	6.25	TONS	
Chipped Glass:	5.65	4.78	6.44	5.22	5.27	6.98	5.09	5.39	6.54	5.19	5.60	7.07	69.22	TONS	
Aluminum:	0.81	0.68	0.92	0.75	0.75	1.00	0.73	0.77	0.94	0.74	0.80	1.01	9.90	TONS	
Linens	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.12	TONS	
Milk Cartons:	0.12	0.10	0.14	0.11	0.11	0.15	0.11	0.12	0.14	0.11	0.12	0.15	1.48	TONS	
Residual	1.38	1.17	1.57	1.27	1.28	1.70	1.24	1.31	1.59	1.27	1.37	1.72	16.87	TONS	
TOTAL TONS	28.76	24.34	32.76	26.56	26.80	35.52	25.92	27.46	33.31	26.42	28.52	35.99	352.36	TONS	
# of HOMES ON ROUTE	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232	1,232			
AVERAGE LBS / HOME /	46.69	39.51	53.18	43.12	43.51	57.66	42.08	44.58	54.07	42.89	46.30	58.43	47.67	Avg. Lbs. /Unit	
Multi- Family RECYCLED MATERIALS	Percentage Break-out												TONS	Description	
Cardboard:	1.84	1.74	2.29	1.96	1.95	2.65	2.19	2.07	2.49	2.05	2.08	2.51	25.82	TONS	
Paper:	1.80	1.71	2.25	1.92	1.92	2.60	2.16	2.04	2.45	2.01	2.05	2.47	25.38	TONS	
Scrap Metal:	0.13	0.12	0.16	0.14	0.14	0.19	0.15	0.15	0.17	0.14	0.15	0.18	1.82	TONS	
Large Plastic:	0.06	0.05	0.07	0.06	0.06	0.08	0.07	0.06	0.08	0.06	0.06	0.08	0.79	TONS	
Z-Bale Plastic:	0.19	0.18	0.23	0.20	0.20	0.27	0.22	0.21	0.25	0.21	0.21	0.26	2.63	TONS	
PET Plastic:	0.29	0.27	0.36	0.31	0.31	0.42	0.35	0.33	0.39	0.32	0.33	0.40	4.08	TONS	
Tin:	0.10	0.10	0.13	0.11	0.11	0.15	0.12	0.11	0.14	0.11	0.11	0.14	1.43	TONS	
Chipped Glass:	1.12	1.06	1.40	1.20	1.20	1.62	1.34	1.27	1.52	1.20	1.27	1.54	15.74	TONS	
Aluminum:	0.16	0.15	0.20	0.17	0.17	0.23	0.19	0.18	0.22	0.18	0.18	0.22	2.25	TONS	
Linens	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TONS	
Milk Cartons:	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.34	TONS	
Residual	0.27	0.26	0.34	0.29	0.29	0.39	0.33	0.31	0.37	0.31	0.31	0.37	3.84	TONS	
TOTAL TONS	5.71	5.42	7.13	6.09	6.08	8.24	6.83	6.45	7.74	6.37	6.48	7.81	80.35	TONS	
# of MF UNITS ON ROUTE	704	704	704	704	704	704	704	704	704	704	704	704			
AVERAGE LBS / HOME /	16.22	15.40	20.26	17.30	17.27	23.41	19.40	18.32	21.99	18.10	18.41	22.19	19.02	Avg. Lbs. /Unit	
COMBINED BREAK-OUT RECYCLED MATERIALS													TONS	Description	
PAPER	22.10	19.08	25.59	20.94	21.08	28.06	21.01	21.75	26.33	21.04	22.45	28.09	277.52	TONS	
ALUMINUM	1.75	1.50	2.02	1.66	1.66	2.22	1.65	1.72	2.08	1.66	1.77	2.22	21.91	TONS	
TIN	0.61	0.53	0.71	0.58	0.58	0.78	0.58	0.60	0.73	0.58	0.62	0.78	7.68	TONS	
PLASTICS	3.24	2.77	3.73	3.05	3.08	4.09	3.06	3.16	3.84	3.06	3.27	4.11	40.46	TONS	
GLASS	6.77	5.84	7.84	6.42	6.47	8.60	6.43	6.66	8.06	6.39	6.87	8.61	84.96	TONS	
Linens	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.12	TONS	
TOTAL TONS	34.48	29.76	39.90	32.65	32.88	43.76	32.74	33.91	41.05	32.80	35.00	43.82	432.75	TONS	
TOTAL INQUIRIES	2	2	3	3	0	2	3	3	4	2	2	2	28		
# of not non-partic.	0	0	30	0	0	9	0	0	16	0	0	26	6.75	Avg. Non-Part	
% of Participation	100.00%	100.00%	96.97%	100.00%	100.00%	99.00%	100.00%	100.00%	98.48%	100.00%	100.00%	97.44%	99.32%	Avg %	

APPENDIX B - RECYCLING REPORT (MULTI-FAMILY)

(page below)

2023 Falcon Heights Annual Weight Recap Report Multi-Family		January	February	March	April	May	June	July	August	September	October	November	December	NET TOTALS
Apt Name	Units	Total Wgt	Total Wgt	Total Wgt	Total Wgt	Total Wgt	Total Wgt	Total Wgt	Total Wgt	Total Wgt	Total Wgt	Total Wgt	Total Wgt	Total Wgt
		for mo. /Month	for mo. /Month	for mo. /Month	for mo. /Month	for mo. /Month	for mo. /Month	for mo. /Month	for mo. /Month	for mo. /Month	for mo. /Month	for mo. /Month	for mo. /Month	for mo. /Month
1588 Arona	10	161	193	193	193	257	305	241	257	321	257	257	321	2956
Shares w/1534,1542 Snelling	33	450	546	610	498	514	626	482	450	626	450	450	514	6280
1466 Larpenteur	8	128	144	144	128	1606	161	128	128	128	128	161	161	1667
1472 Larpenteur	20	321	450	610	450	546	610	514	321	610	321	128	257	5138
1486 Larpenteur	20	193	128	161	128	64	96	64	0	0	64	0	32	930
1490 Larpenteur	5	128	128	161	128	2569	161	128	128	161	128	161	161	1701
1495 Larpenteur	8	247	225	257	257	321	321	193	257	321	193	225	321	3010
1504 Larpenteur	10	193	161	257	257	2569	225	995	321	353	321	257	289	4046
1510 Larpenteur	10	161	321	289	257	2248	417	995	321	353	321	321	285	3657
Falcon Arms Apts	17	321	321	385	321	289	450	289	289	353	353	321	285	4076
Falcon Arms Apts	17	257	1889	385	321	2248	385	321	321	385	289	385	417	4045
Falcon Arms Apts	17	385	353	385	353	2078	417	385	353	385	353	289	417	4460
Falcon Arms Apts	17	321	1889	417	289	1700	385	321	353	417	289	353	289	4012
1707 Lindig	12	96	193	96	193	1606	96	161	353	417	1700	353	289	2472
1845 Larpenteur	34	514	514	642	514	1511	514	514	482	642	514	514	642	6520
1707 Tatum	11	257	257	257	193	2335	321	257	247	257	257	193	321	3074
1666 Coffman	93	2023	1991	2440	1927	2072	2505	1959	1959	257	257	2055	2601	25850
1830 Larpenteur	17	353	353	417	450	2644	610	514	546	2408	2055	2055	2601	25850
Fairfield Apts	36	706	706	995	674	1873	1124	963	899	578	482	578	674	5940
The Hendrickson Senior Living	66	1349	963	1509	1252	1897	1381	1284	1317	1252	931	899	1060	11204
Larpenteur Manor	144	1734	1477	2087	1573	1093	1606	1798	1734	1541	1220	1349	1573	16344
1530 Larpenteur	175	1670	1317	2216	2408	1376	3436	1249	2537	2472	1766	2633	2248	22188
ANNUAL NET TOTALS (lbs)		11988	11,351	14,945	12,764	12,748	17,275	14,305	13,509	16,228	13,357	13,584	16,276	168,310 Pounds

APPENDIX C - MONTHLY RECYCLING REPORT LETTER (EXAMPLE)

Tennis Sanitation, L.L.C.

651-459-1887

"Recycling is Everyone's Future"

November 2023 - RECYCLING REPORT

Dear City of Falcon Heights Recycling Coordinator,

Tennis Sanitation is pleased to provide the following monthly recycling report detailing the materials that were collected, processed and delivered to recycling markets from both single family and multi-family dwellings.

The Community of Falcon Heights Recycled:

TYPE	Single Family Weight (tons)	Multi-Family Weight (tons)	NET Total Wgt	UNIT	DESCRIPTION
Cardboard: 30.66%	9.16	2.08	11.25	tons	Includes all cardboard boxes.
Paper: 30.14%	9.01	2.05	11.06	tons	Includes paper, newspaper and junk mail
Scrap Metal: 2.15%	0.64	0.15	0.79	tons	Metal pans and misc metal
Large Plastic: 0.95%	0.28	0.06	0.35	tons	Toys, patio furniture and large containers
Z-Bale Plastic: 3.14%	0.94	0.21	1.15	tons	Food and beverage containers
PET Plastic: 4.84%	1.45	0.33	1.78	tons	Food and beverage containers
Tin: 1.69%	0.51	0.11	0.62	tons	Includes all bi-metal and tin cans
Chipped Glass: 18.75%	5.60	1.27	6.88	tons	Includes all clear, brown and green colors
Aluminum: 2.68%	0.80	0.18	0.98	tons	Includes all aluminum cans
Linen: 0.03%	0.01	0.00	0.01	tons	Reusable clothing and shoes
Milk Cartons: 0.40%	0.12	0.03	0.15	tons	Beverage cartons
Residual 4.57%	1.37	0.31	1.68	tons	Includes all residuals and trash
Total Tons: 100.00%	28.52	6.48	35.00	Tons	Net total recycling for the month

Other fun facts:

TYPE	Single Family Weight (lbs)	Multi-Family Weight (lbs)	NET Calcs.	DESCRIPTION
Units:	1232	704	1936	Units collected per week
Wgt/home:	46.31	18.41	32.36	lbs Average pounds per unit collected per month
Linens:	Combined	Combined	0.00	lbs Includes all clothing, garments and other linens
Average % of serviced accounts (SF)			88%	Average % of participation (SF) 100.00%
This month's homes that did not participate in weekly recycling collection was			0	residents
Total inquiries for this month were:			2	

Summary of report: This month illustrates resident's recycling efforts for both SF and MF Dwellings. The above recycling break-out reflects the composite study based off of Tennis Recycle totals for 2022.

Great job on your recycling efforts.

Sincerely,

Greg & Willie Tennis

Tennis Sanitation

PO Box 62

720 4th St St. Paul Park, MN 55071

APPENDIX D - MONTHLY MULTI-FAMILY REPORT DATA (EXAMPLE)

Falcon Heights			November 2023		WEEK 1			WEEK 2			WEEK 3			WEEK 4			WEEK 5			Total Wgt for mo.		Wgt/unit Units per Month			
Multi-Family	Apt Name	Number	Street Name	Carts	Units	# carts	Average Wgt/cart	Total Tare Wgt	# carts	Average Wgt/cart	Total Tare Wgt	# carts	Average Wgt/cart	Total Tare Wgt	# carts	Average Wgt/cart	Total Tare Wgt	# carts	Average Wgt/cart	Total Tare Wgt	Total Wgt for mo.	Units	Wgt/unit per Month		
Shares with 1511 W. Iarp	1688	Arona		10	2	74.71	64	2	74.71	64	2	74.71	64	2	74.71	64	0	74.71	0	257	10	25.69			
Shares w/1634,1642 Snelling	1561	idaho		33	5	74.71	161	3	74.71	96	1	74.71	96	5	74.71	161	0	74.71	0	514	33	15.57			
	1466	Larpenteur		8	1	74.71	32	1	74.71	32	1	74.71	32	2	74.71	64	0	74.71	0	161	8	20.07			
	1472	Larpenteur		20	1	74.71	32	1	74.71	32	1	74.71	32	0	74.71	0	0	74.71	0	128	20	6.42			
	1486	Larpenteur		20	0	74.71	0	0	74.71	0	0	74.71	0	0	74.71	0	0	74.71	0	0	20	0.00			
	1490	Larpenteur		5	1	74.71	32	2	74.71	64	1	74.71	32	1	74.71	32	0	74.71	0	161	5	32.11			
	1496	Larpenteur		8	1	74.71	32	2	74.71	64	1	74.71	64	2	74.71	64	0	74.71	0	225	8	28.10			
	1504	Larpenteur		10	1	74.71	32	2	74.71	64	2	74.71	64	3	74.71	96	0	74.71	0	257	10	25.69			
	1510	Larpenteur		10	3	74.71	96	2	74.71	64	1	74.71	32	4	74.71	128	0	74.71	0	321	10	32.11			
Falcon Arms Apts.	1717	Fry		17	3	74.71	96	2	74.71	64	3	74.71	96	4	74.71	128	0	74.71	0	305	17	22.67			
Falcon Arms Apts.	1707	Fry		17	2	74.71	64	2	74.71	64	2	74.71	64	3	74.71	96	0	74.71	0	289	17	17.00			
Falcon Arms Apts.	1697	Fry		17	2	74.71	64	3	74.71	96	2	74.71	64	2	74.71	64	0	74.71	0	289	17	17.00			
Falcon Arms Apts.	1687	Fry		17	2	74.71	64	3	74.71	96	3	74.71	96	3	74.71	96	0	74.71	0	353	17	20.78			
	1707	Lindig		12	4	74.71	128	0	74.71	0	1	74.71	96	2	74.71	64	0	74.71	0	299	12	24.08			
Shares w/1855	1245	Larpenteur		34	4	74.71	128	4	74.71	128	4	74.71	128	4	74.71	128	0	74.71	0	514	34	15.11			
	1707	Tatum		11	2	74.71	64	2	74.71	64	2	74.71	64	0	74.71	0	0	74.71	0	193	11	17.51			
Condominiums	1666	Coffman		93	16	74.71	514	16	74.71	514	16	74.71	514	16	74.71	514	0	74.71	0	2055	93	22.10			
	1830	Larpenteur		17	4	74.71	128	4	74.71	128	5	74.71	161	5	74.71	161	0	74.71	0	578	17	34.00			
Fairfield Apts. 1800 S 1818	1800	Larpenteur		9	36	16	74.71	395	7	74.71	225	1	74.71	297	7	74.71	225	0	74.71	0	899	36	24.97		
The Hendrickson Senior Living	1750	Larpenteur		6	65	13	74.71	305	10	74.71	321	10	74.71	321	0	74.71	0	74.71	0	1349	65	20.43			
Larpenteur Manor 1710,-20,-30,-40	1710	Larpenteur		144	13	74.71	417	13	74.71	417	14	74.71	450	14	74.71	450	0	74.71	0	1734	144	12.04			
Shares w/1550	1530	Larpenteur		175	22	74.71	706	22	74.71	706	22	74.71	706	16	74.71	514	0	74.71	0	2633	175	15.05			
Total Number of Units																						13,583		6,791,265	

APPENDIX E - MONTHLY SINGLE FAMILY REPORT DATA (EXAMPLE)

Falcon Heights 2023 November						
FRI RTE # 1	Week 1	Week 2	Week 3	Week 4	Week 5	
Tons - Load 1	3.72	3.65	3.69	5.10	0.00	
Tons - Load 2	0.00	0.00	0.00	0.00	0.00	Net Total
TOTAL Tons	3.72	3.65	3.69	5.10	0.00	16.16
# of Stops	760	760	760	760	760	Averages
Not outs	91	76	95	104	0	73
% of Serviced Accounts	88%	90%	88%	86%	100%	88%
Lbs per Stop Recycled	11.12	10.67	11.10	15.55	0.00	12.11
FRI RTE # 2	Week 1	Week 2	Week 3	Week 4	Week 5	
Tons - Load 1	3.28	3.45	3.31	3.69	0.00	
Tons - Load 2	0.00	0.00	0.00	0.00	0.00	Net Total
TOTAL Tons	3.28	3.45	3.31	3.69	0.00	13.73
# of Stops	472	472	472	472	472	Averages
Not outs	92	68	91	134	0	96
% of Serviced Accounts	81%	86%	81%	72%	100%	80%
Lbs per Stop Recycled	17.26	17.08	17.38	21.83	0.00	18.39
FRIDAY ROUTE SUMMARY FOR November 2023						
FRIDAY	Week 1	Week 2	Week 3	Week 4	Week 5	
TOTAL Tons	7.00	7.10	7.00	8.79	0.00	29.89
# of Stops	1232	1232	1232	1232	1232	Averages
Not outs	183	144	186	238	0	150
% of Participation	85%	88%	85%	81%	100%	88%
Lbs per Stop Recycled	13.35	13.05	13.38	17.69	0.00	11.49
Week 1	Week 2	Week 3	Week 4	Week 5	Net Total	
Clothing/Linens (lbs)	0.00	0.00	0.00	0.00	0.00	0.00