

Falcon Heights Recycling Report



Greg & Willie Tennis Tennis Sanitation LLC. 1/31/2022

Prepared by: Angela Hamann



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January 31st, 2022



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

RE: LETTER OF PURPOSE

Dear City of Falcon Heights,

This 2020 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, along with a final summary of the report.

This year's report we have included six years of comparison data to help measure the success of the recycling program including participation.

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; weights are then compiled over a month's period of time. 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 are able to 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 are able to provide the following observations:

2021 Average lbs. per household per month = 57.02 lbs. per month

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. 2012 Average lbs. per household per month = 54.86 lbs. 2012 Average lbs. per household per month = 54.76 lbs. 2011 Average lbs. per household per month = 54.82 lbs.



2021 Annual Net total tons collected for single family were 421.51 tons

2020 Annual total single family were 403.20 tons 2019 Annual total single family were 341.19 tons 2018 Annual total single family were 368.90 tons 2017 Annual total single family were 381.96 tons 2016 Annual total single family were 398.83 tons 2015 Annual total single family were 385.12 tons 2014 Annual total single family were 425.36 tons 2013 Annual total single family were 405.54 tons 2012 Annual total single family were 404.80 tons 2011 Annual total single family were 405.26 tons



Other New Data Collected: Participation Percentage of Residents

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	AVRG
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%
2013	94%	92%	95%	94%	97%	96%	97%	97%	96%	93%	95%	94%	94%

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.

RECYCLING DATA (MULTI-FAMILY)

The data in APPENDIX A **(Blue)** is the actual data compiled from net total weight family homes after factoring-out the multi-family weights. From this data we are able to 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 are able to calculate the weight per unit per month.

In analyzing the multi-family data, we are able to provide the following observations:

2021 Average lbs. per unit per month = 20.82 lbs. per month

2020 Average lbs. per unit per month = 18.87 lbs. per month 2019 Average lbs. per unit per month = 16.69 lbs. per month 2018 Average lbs. per unit per month = 16.69 lbs. per month 2017 Average lbs. per unit per month = 18.58 lbs. per month 2016 Average lbs. per unit per month = 16.45 lbs. per month 2015 Average lbs. per unit per month = 18.23 lbs. per month 2014 Average lbs. per unit per month = 17.82 lbs. per month 2013 Average lbs. per unit per month = 17.82 lbs. per month 2012 Average lbs. per unit per month = 16.49 lbs. per month 2011 Average lbs. per unit per month = 16.49 lbs. per month



2021 Annual Net total tons collected for multi-family was 87.92 tons

2020 Annual Net total tons collected for multi-family were 79.71 tons 2019 Annual Net total tons collected for multi-family were 72.78 tons 2018 Annual Net total tons collected for multi-family were 70.49 tons 2017 Annual Net total tons collected for multi-family were 78.48 tons 2016 Annual Net total tons collected for multi-family were 69.47 tons 2015 Annual Net total tons collected for multi-family were 77.00 tons 2014 Annual Net total tons collected for multi-family were 75.28 tons 2013 Annual Net total tons collected for multi-family were 75.28 tons 2012 Annual Net total tons collected for multi-family were 69.65 tons 2011 Annual Net total tons collected for multi-family were 69.65 tons

<u>How are the weights determined for the multi-family data</u>? 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 then divided by the number of carts emptied to get an average weight per cart. This data is then entered into a multi-family spreadsheet. See APPENDIX D for an example of this report.

This data is significant because we are able to 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 are able to 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.

INVIRONMENTA	L IMPACT AN	ALYSIS		TENNIS	SANITATION	
688 Arona				ESTIMATED TOTAL TONS RE	CYCLED:	1.62
Total pounds	3244					
ear Property Manag	er,					
				e notice the amount of recyc	ling materials your	
ennants recycled and	I the estimated r	eso urces	you saved from	n each category.		
				rease awareness and overall		gst
our tenants. We hav	ve also en closed :	a recyclin	g broch ure det	ailing the acceptable recyclin	g materials.	
lso, please contact u	sifyou would lik	efurthe	r information o	n ways to enhance your recy	cling. You can cont	actus
t651-459-1887. Aw	esome job on re	cycling!!				
'hank you for recyclir	ıg,					
Greg & W	íllie Tes	rnís	,			2021
1 0						
	MW total		Resource	Calc/	Total Resources	
ecycling Type	Tons	Units	Saved	Resource	Saved	Туре
Paper	1.19		Trees	1 ton = 17 Trees		trees
Paper		tons	Electricity	1 ton = 601 Kw Hours 1 ton = 1.7 barrels of oil		Kw hours of electrity barrels of oil
Paper	1.19	tons		1 ton = 1.7 parrels of oli	2.05	barrels of oli
Aluminum	0.05		Ore	1 ton = 4 tons of ore		tons of ore
Aluminum		tons	Electricity	1 ton = 14,000 Kw Hours		Kw hours of electrity
Aluminum	0.05	tons	Oil	1 ton = 40 barrels of oil	2.17	barrels of oil
Tin/bi-metal	0.02		Ore	1 ton = 1.49 tons of ore		tons of ore
Tin/bi-metal Tin/bi-metal	0.02		Electricity	1 ton = 642 Kw Hours 1 ton = 1.8 barrels of oil		Kw hours of electrity barrels of oil
Tin/DI-metai	0.02	LONS		1 ton = 1.8 parreis 01 01	0.04	barreis of on
Plastics	0.10		Oil	1 ton = 6.3 barrels of oil		barrels of oil
Plastics Plastics	0.10	tons	Electricity Natural Gas	1 ton = 5,774 Kw Hours 1 ton = 98,000,000 btu's		Kw hours of electrity BTU's of fuel
Glass	0.25		Sand	1 ton = 1,330 tons of sand		tons of sand
Glass	0.25		Electricity	1 ton = 42 Kw Hours 1 ton = .12 gallons of oil		Kw hours of electrity barrels of oil
Glass	0.25		Natural Gas	1 ton = 714,000 btu's		BTU's of fuel
Environment	al Impact	Sumr	narv	- No		
			,	S 12.2		
esources	Amounts	Units Sa	und			
reessaved		Trees sa		1 📶	\sim	
					(100) -	
lectricity saved	1,500	Kw Hou	rs saved	1	\sim	
,	-,			\rightarrow		
Dil saved		Baccole	of oil saved	$\gamma \gamma \gamma$	-	
Jil Saved	2	Darreis	or oil saved			
				R	0000	
latural Gas saved	10,386,400	BTU's of	f natural gas sa	ved		
					_	
*Disclaimer: The abov	e numbers repres	ent conve	rsions from indu	strial and recycling markets. The	ese numbers are	

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 amount 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.

JAN	FEB	MAR	APR	ΜΑΥ	JUN	JUL	AUG	SEP	ост	NOV	DEC	TOTAL
4	5	2	4	0	2	2	1	5	15	6	4	50
2020	Total Inc	quiries	33									
2019	Total Inc	quiries	27									
2018	Total Inc	quiries	19									
2017	Total Inq	quiries	40				()	-		-	-	0
2016	Total Inc	quiries	71				E 4		1 12	n	Else.	AL
2015	Total Inc	quiries	68								A	1
2014	Total Inc	quiries	37				ida 🕅		118	(C)	67.1	
2013	Total Inc	quiries	81				1		14		92.	RU I
2012	Total Inc	quiries	91				a 1	13		P	Y L	
2011	Total Inc	quiries	94					6.1				MI

TOTAL INQUIRIES FOR 2021

LINENS AND SHOES SUMMARY

We started a new partnership with Simple Recycling for our linen recycling as of March 2017. The 2020 year brought us many challenges, and linen recycling was one of them. Simple Recycling 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 the collect the bagged material but not able to collect it divided by City.



2019 linens and shoes totaled9,791 pounds2018 linens and shoes totaled1,185 pounds2017 linens and shoes totaled16,003 pounds2016 linens and Shoes totaled1,125 pounds2015 linens and Shoes totaled3,504 pounds2014 Linens and shoes totaled4,199 pounds2013 Linens and shoes totaled5,465 pounds2012 Linens and shoes totaled1,616 pounds2011 Linens and shoes totaled679 pounds

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 though 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 taken a look at all of 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 of 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 S	Sanita	ation, L.L.C.	
651-459-18	87	"Recycling is Everyone's Future"	
RE: COMPOSITE BRE	AK-OUT PERC	ENTAGE 11/30/2021	
Tennis Sanitation is p percentage ratios of e		vide the following composite sample break-out detailing the recycling category.	
TYPE	Tennis Wide	DESCRIPTION	
Cardboard:	29.17%	Includes all cardboard boxes.	
Paper:	31.37%	Includes cardboard, paper, newspaper and junk mail	
Scrap Metal:	2.26%	Metal pans and misc metal	
Large Plastic:	0.82%	Toys, patio furniture and large containers	
Z-Bale Plastic:	3.02%	Food and beverage containers	
PET Plastic:	4.49%	Food and beverage containers	
Tin:	1.57%	Includes all bi-metal and tin cans	
NiHot Glass:	18.70%	Includes all clear, brown and green colors	
Alum inum:	2.57%	Includes all aluminum cans	
Linens	0.08%	Reusable clothing and shoes	
Milk Cartons:	0.18%	Beverage cartons	
Residuals (Trash):	5.77%	Includes all residuals and trash	
	100.00%	Net total recycling for the month	
Sincerely, Augela Hamo City Liaison, Common Tennis Sanitation PO Box 62 720 4 th St St. Paul Park D:651-313-5208 W:651-459-1887 F:651-459-7412	lity Sales & Re	eports	

ENVIRONMENTAL IMPACT ANALYSIS

Using the detailed recycling data from this report, we are able to 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.

ENVIRONMENTAL IMPACT ANALYSIS CITY OF FALCON HEIGHTS RECYCLING 2021 Total Resources MW total Calc/ Resource Units Saved Recycling Type Tons Resource Saved Type 298 tons 5,060 trees Paper Trees 1 ton = 17 Trees 1 ton = 601 Kw Hours 178,876 Pape 298 tons Electricity Kw hours of electrity Paper 298 tons Oil 1 ton = 1.7 barrels of oil 506 barrels of oil Aluminum 7 tons Ore 1 ton = 4 tons of ore 28 tons of ore 7 Aluminum tons Electricity 1 ton = 14,000 Kw Hours 96,880 Kw hours of electrity 7 Oil 1 ton = 40 barrels of oil 277 barrels of oil Aluminum tons Tin/bi-metal 13 tons Ore 1 ton = 1.49 tons of ore 19 tons of ore Tin/bi-metal 13 Electricity 1 ton = 642 Kw Hours 8,070 Kw hours of electrity tons Tin/bi-metal 13 tons Oil 1 ton = 1.8 barrels of oil 23 barrels of oil Plastics 31 tons Oil 1 ton = 6.3 barrels of oil 198 barrels of oil Plastics 31 tons Electricity 1 ton = 5,774 Kw Hours 126 Kw hours of electrity Natural Gas 3,075,240,000 BTU's offuel Plastics 31 tons 1 ton = 98,000,000 btu's Glass 62 tons Sand 1 ton = 1,330 tons of sand 82,221 tons of sand Glass 62 tons Electricity 1 ton = 42 Kw Hours 2,596 Kw hours of electrity Glass 62 tons Oil 1 ton = .12 gallons of oil 7 barrels of oil 44,139,480 BTU's offuel Glass 62 tons Natural Gas 1 ton = 714,000 btu's Environmental Impact Summary Resources Amounts Units Saved Trees saved 5,060 Trees saved Electricity saved 286,548 Kw Hours saved Oil saved 1,011 Barrels of oil saved Natural Gas saved 3,119,379,480 BTU's of natural gas saved

In this report we were able to convert the types of recycling materials into resources 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 2021 markets have seen their ups and downs but mostly up this past year. We continue seeing changes with regulations that have been influenced by China's markets even though we keep all of our recyclable materials in the United States, mostly in the Midwest. There is definitely a change in the materials that are getting recycled, less paper, more cardboard, with schools always on the ready for distance learning, more offices working from home and a whole lot more home deliveries. The metal markets have slowly been working their way back to where pricing was back in 2018. The paper and cardboard markets are back in a comfortable place but always room to grow. Plastic markets hit their rock bottom last year but, with the cost of crude oil is increasing, we are hopeful that the plastic market will follow suit. Lastly, the glass market, with only one processor in the area, the commodity has been at a plateau again this year. With the Ni-Hot machine, we installed a few years back; we can capture more glass than in previous years which helps get more material to the processor. The processor can reclaim at least 90% of the broken glass to be made into new food and beverage containers.

The outlook for 2022

Markets are stabilizing but will continue with the strict regulations on contaminates and clean material. With co-mingle curb side recycling it makes it easier to recycle but it is important to clean out your food containers, and make sure you are only placing items listed in your recycling brochure loosely into the recycling cart.



SUMMARY OF YEAR-END RECYCLING REPORT

The 2021 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 in meeting our combined goals.

In the 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 participation rate was 96% participation rate. Both single family tonnages as well as multi-family recycling volumes have remained steady and consistent with other Municipalities.

In 2022, we will maintain the comprehensive recycling program we offer with the additional types of plastics, metals and linens.

Together 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)

2021 FALCON HEIGHTS													
RECYCLE TONNAGE DATA	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ост	NOV	DEC	NET TOTALS
MONTHLY DATA/RTE	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS TYPE
Single Family	Percentage	Break-out	t										
RECYCLED MATERIALS	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	TONS Description
Card board:	16.71	11.51	11.66	14.82	12.03	12.10	14.43	11.36	11.74	14.11	11.99	14.97	157.43 TONS
Paper:	14.80	10.19	10.32	13.12	10.65	10.71	12.78	10.06	10.40	12.50	10.61	13.25	139.39 TONS
Scrap Metal:	0.71	0.49	0.50	0.63	0.51	0.52	0.61	0.48	0.50	0.60	0.51	0.64	6.70 TONS
Large Plastic:	0.25	0.17	0.17	0.22	0.18	0.18	0.21	0.17	0.17	0.21	0.18	0.22	2.33 TONS
Z-Bale Plastic:	1.03	0.71	0.72	0.91	0.74	0.74	0.89	0.70	0.72	0.87	0.74	0.92	9.69 TONS
PET Plastic:	1.49	1.03	1.04	1.32	1.07	1.08	1.29	1.01	1.05	1.26	1.07	1.33	14.04 TONS
Tin:	0.62	0.43	0.43	0.55	0.45	0.45	0.54	0.42	0.44	0.53	0.45	0.56	5.87 TONS
Chipped Glass:	6.56	4.52	4.58	5.82	4.72	4.75	5.67	4.46	4.61	5.54	4.71	5.88	61.82 TONS
Aluminum:	0.73	0.51	0.51	0.65	0.53	0.53	0.63	0.50	0.52	0.62	0.53	0.66	6.92 TONS
Linens	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.25 TONS
Milk Cartons: Residual	0.09	0.06	0.06	0.08	0.06	0.06	0.07	0.06	0.06	0.07	0.06	0.08	0.81 TONS
	1.73	1.19	1.20	1.53	1.24	1.25	1.49	1.17	1.21	1.46	1.24	1.55	16.26 TONS
TOTAL TONS	44.75	30.83	31.21	39.67	32.20	32.39	38.63	30.41	31.44	37.79	32.11	40.08	421.51 TONS
# of HOMES ON ROUTE AVERAGE LBS / HOME /	1,232	1,232	1,232 50.67	1,232	1,232	1,232 52.58	1,232	1,232 49.37	1,232 51.04	1,232	1,232	1,232 65.06	57.02 Avg, Lbs. /Unit
				04.40	32.27	32.38	02./1	49.37	51.04	01.55	32.13	00.00	37 WZ AVg, LUS. / UIII
Multi- Family RECYCLED MATERIALS	Percentage Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	TONS Description
				_								_	
Cardboard:	3.02	2.43	2.42	3.07	2.51	2.48	3.16	2.51	2.54	2.97	2.34	2.95	32.40 TONS
Paper:	2.68	2.16	2.14	2.73	2.22	2.20	2.80	2.22	2.25	2.63	2.07	2.61	28.71 TONS
Scrap Metal:		0.10	0.10		0.11			0.11					1.27 TONS
Large Plastic: Z-Bale Plastic:	0.04	0.04	0.04	0.05	0.04	0.04	0.05	0.04	0.04	0.01	0.03	0.04	0.46 TONS
PET Plastic:	0.19	0.15	0.15	0.19	0.15	0.15	0.19	0.15	0.16	0.18	0.14	0.18	1.98 TONS 2.88 TONS
Tin:	0.27	0.09	0.22	0.27	0.22	0.09	0.28	0.22	0.25	0.20	0.21	0.20	1.19 TONS
Chipped Glass:	1.19	0.05	0.95	1.21	0.99	0.98	1.24	0.99	1.00	1.17	0.92	1.16	12.76 TONS
Aluminum:	0.13	0.50	0.55	0.13	0.55	0.55	0.14	0.55	0.11	0.13	0.52	0.13	142 TONS
Linens	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01 TONS
Milk Cartons:	0.00	0.00	0.00	0.02	0.00	0.07	0.02	0.01	0.01	0.02	0.01	0.02	0.23 TONS
Residual	0.02	0.01	0.01	0.02	0.01	1.51	0.33	0.26	0.01	0.02	0.24	0.02	4.61 TONS
TOTAL TONS	8.09	6.52	6.48	8.11	6.71	7.96	8.47	6.71	6.80	7.92	6.25	7.90	87.92 TONS
# of MF UNITS ON ROUTE	704	704	704	704	704	704	704	704	704	704	704	704	
AVERAGE LBS / HOME /	22.98	18.52	18.41	23.05	19.06	22.61	24.06	19.06	19.32	22.50	17.76	22.44	20.82 Avg, Lbs. /Unit
COMBINED BREAK-OUT													
RECYCLED MATERIALS	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	TONS Description
PAPER	37.32	26.36	26.61	33.84	27.48	27.62	33.26	26.22	27.00	32.30	27.08	33.88	358.97 TONS
ALUMINUM	1.70	1.21	1.22	1.42	1.26	1.27	1.51	1.20	1.24	1.48	1.24	1.56	16.31 TONS
TIN	0.73	0.52	0.52	0.66	0.54	0.54	0.66	0.51	0.53	0.64	0.54	0.67	7.06 TONS
PLASTICS	3.27	2.32	2.34	2.96	2.40	2.41	2.91	2.29	2.37	2.79	2.37	2.95	31.38 TONS
GLASS	7.75	5.48	5.53	7.03	5.71	5.73	6.91	5.45	5.61	6.71	5.63	7.04	74.58 TONS
Linens	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.26 TONS
TOTAL TONS	50.80	35.91	36.24	45.93	37.41	37.59	45.28	35.69	36.77	43.94	36.88	46.12	488,56 TONS
TOTAL INQUIRIES	4	5	2	43.95	0	2	43.20	1	5	15	6	40.12	50
# of not non-partic.	4 30	5	2 38	4 24	22	2 23	2 13	1 20	26	15 26	26		27.58 Avg. Non-Part
% of Participation	30 97.01%	94,88%	38 96.31%	97.57%	97.83%	97.85%	98.80%	20 98.01%	26 97,44%	26 97,56%	26 97.2.8%		97.29% Avg %
	97.01%	94.88%	90.51%	97.57%	97.85%	97.85%	98.80%	98.01%	97.44%	97.30%	97.28%	90.94%	2.1.2.7 BTB //

APPENDIX B - RECYCLING REPORT (MULTI-FAMILY)

2021 Falcon Heights Annual Weight RECAP REPO	RT	Janua	ary	Febru	ary	Marc	h	April		Ma	y	Jur	ie	July		Augu	st	Septer	nber	Octol	ber	Novem	ıber	Decem	ber	NET TO	TALS
Multi-Family		Total Wgt	Ngt/uni	Total Wgt	Wgt/unit	Total Wgt	Wgt/unit	Total Wgt V	Ngt/unit	Total Wgt	Ngt/uni	Total Wgt	Wgt/uni	Total Wgt	Vgt/uni	Total Wgt	Wgt/unit	Total Wgt	Wgt/unit	Total Wgt V	Ngt/uni	Total Wgt	Wgt/unit	Total Wgt	Wgt/unit	Total Wgt	Average
Apt Name	Units	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.	er Monti	for Year(lbs) v	wgt for yr
1688 Arona	10	321	32	257	26	257	26	321	32	257	26	257	26	289	29	257	26	209	21	257	26	209	21	353	35	3244	27
Shares w/1634,1642 Snelling	33	803	24	642	19	642	19	803	24	626	19	610	18	739	22	546	17	642	19	771	23	642	19	706	21	8172	21
1466 Larpenteur	8	161	20	128	16	128	16	161	20	128	16	128	16	161	20	128	16	128	16	161	20	128	16	161	20	1701	18
1472 Larpenteur	20	482	24	642	32	610	31	771	39	466	23	610	31	771	39	546	27	642	32	482	24	578	29	369	18	6969	29
1486 Larpenteur	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	321	16	0	0	257	13	161	8	450	23	1189	5
1490 Larpenteur	5	193	39	128	26	128	26	161	32	161	32	128	26	161	32	128	26	128	26	161	32	161	32	161	32	1799	30
1496 Larpenteur	8	321	40	257	32	257	32	353	44	225	28	257	32	321	40	257	32	257	32	321	40	289	36	321	40	3436	36
1504 Larpenteur	10	321	32	257	26	257	26	385	39	289	29	321	32	417	42	321	32	257	26	353	35	289	29	353	35	3820	32
1510 Larpenteur	10	353	35	514	51	385	39	514	51	353	35	353	35	482	48	385	39	385	39	450	45	289	29	353	35	4816	40
Falcon Arms Apts	17	417	25	321	19	321	19	417	25	321	19	321	19	385	23	321	19	289	17	385	23	321	19	417	25	4236	21
Falcon Arms Apts	17	353	21	321	19	321	19	385	23	321	19	353	21	353	21	353	21	321	19	385	23	321	19	353	21	4140	20
Falcon Arms Apts	17	450	26	321	19	321	19	417	25	321	19	321	19	450	26	289	17	321	19	417	25	321	19	450	26	4399	22
Falcon Arms Apts	17	450	26	321	19	321	19	385	23	353	21	289	17	450	26	321	19	353	21	321	19	289	17	385	23	4238	21
1707 Lindig	12	482	40	450	38	417	35	450	38	482	40	385	32	546	46	385	32	417	35	321	27	193	16	225	19	4753	33
1845 Larpenteur	34	674	20	514	15	514	15	642	19	514	15	578	17	578	17	514	15	482	14	642	19	514	15	610	18	6776	17
1707 Tatum	11	257	23	193	18	257	23	321	29	128	12	193	18	257	23	161	15	193	18	321	29	193	18	257	23	2731	21
1666 Coffman	93	2601	28	2023	22	2055	22	2505	27	2216	24	2055	22	2537	27	2055	22	2216	24	2344	25	1991	21	2601	28	27199	24
1830 Larpenteur	17	706	42	482	28	482	28	706	42	546	32	610	36	642	38	578	34	482	28	642	38	514	30	642	38	7032	34
Fairfield Apts	36	1220	34	931	26	963	27	1220	34	1028	29	1028	29	1284	36	963	27	931	26	995	28	899	25	1252	35	12714	29
The Hendrickson Senior Living	66	899	14	578	9	642	10	803	12	835	13	899	14	1381	21	1156	18	1317	20	1284	19	1188	18	1252	19	12234	15
Larpenteur Manor	144	2216	15	1798	12	1798	12	2183	15	1766	12	1798	12	2248	16	1734	12	1734	12	2087	14	1734	12	2151	15	23247	13
1530 Larpenteur	175	2505	14	1959	11	1862	11	2537	14	2119	12	1798	10	2472	14	1734	10	1894	11	2537	14	1317	8	1991	11	24725	12
ANNUAL NET TOTALS (lbs)		16185		13,037		12,938		16,440		13,455		13,292		16,924		13,453		13,598		15,894		12,541		15,813		173,570 P	ounds

APPENDIX C - MONTHLY RECYCLING REPORT LETTER (EXAMPLE)

Tennis Sanitation, L.L.C.

651-459-1887

"Recycling is Everyone's Future"

31 residents

December 2021 - 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:

TVDE		Single Family	Multi-Family	NET	UNIT	DESCRIPTION
TYPE		Weight (tons)	Weight (tons)	Total Wgt	UNII	DESCRIPTION
Cardboard:	37.35%	14.97	2.95	17.92	tons	Includes all cardboard boxes.
Paper:	33.07%	13.25	2.61	15.87	tons	Includes cardboard, paper, newspaper, junk mail,
Scrap Metal:	1.59%	0.64	0.13	0.76	tons	
Large Plastic:	0.55%	0.22	0.04	0.26	tons	Toys and parts
Z-Bale Plastic:	2.30%	0.92	0.18	1.10	tons	
PET Plastic:	3.33%	1.33	0.26	1.60	tons	
Tin:	1.39%	0.56	0.11	0.67	tons	Includes all bi-metal and tin cans
Chipped Glass:	14.67%	5.88	1.16	7.04	tons	
Aluminum:	1.64%	0.66	0.13	0.79	tons	Includes all aluminum cans
Linen	0.06%	0.02	0.00	0.03	tons	Reusable Textiles and shoes
Milk Cartons:	0.19%	0.08	0.02	0.09	tons	Beverage cartons
Residual	3.86%	1.55	0.31	1.85		
Total Tons:	100.00%	40.07	7.91	46.13	Tons	Net total recycling for the month

Other fun facts:

		Single Family	Multi-Family	NET			
TYPE		Weight (Ibs)	Weight (Ibs)	Calcs.			
Units:		1232	704	1936		Units collected per week	
Wgt/home:		65.05	22.46	43.76	lbs	Average pounds per unit collected per month	
Average % of se	rviced acco	unts (SF)		85%	Ave	rage % of participation (SF)	96.94%

4

This month's homes that did not paricipate in weekly recycling collection was

Total inquiries for this month were:

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 2020.

Great job on your recycling efforts.

Sincerely,

Angela Vaidich

City Liaison, Commodity Sales & Reports Tennis Sanitation PO Box 62 720 4th St St Paul Park, MN 55071

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

Falcon Heights	ecembei	2021			WEE	v	WEEK 2			WEEK 3			VEEK	4	١	VEEK	5				
Multi-Family	Δ		Lts	nits	Avera	e Total		Average	Total		Average	Total		Average	Total		Average	Total	Total Wgt		Wgt/unit
Apt Name	Number	Street Name	ပီ	UL	# carts Wgt/ca	art Tare Wg	t # carts	Wgt/car	t Tare Wgt	# carts	Wgt/cart	Tare Wgt	# carts	Wgt/car	t Tare Wgt	# carts	Wgt/cart	Tare Wgt	for mo.	Units	per Monti
Shares with 1511 W. larp	1688	Arona		10	2 74.71	64	2	74.71	64	2	74.71	64	2	74.71	64	3	74.71	96	353	10	35.32
Shares w/1634,1642 Snelling	1561	Idaho		33	4 74.71	128	4.5	74.71	144	5	74.71	161	4.5	74.71	144	4	74.71	128	706	33	21.41
	1466	Larpenteur		8	1 74.71	32	1	74.71	32	1	74.71	32	1	74.71	32	1	74.71	32	161	8	20.07
	1472	Larpenteur		20	2 74.71	64	2	74.71	64	2	74.71	64	3.5	74.71	112	2	74.71	64	369	20	18.46
	1486	Larpenteur		20	3 74.71	96	3	74.71	96	3	74.71	96	2	74.71	64	3	74.71	96	450	20	22.48
	1490	Larpenteur		5	1 74.71	32	1	74.71	32	1	74.71	32	1	74.71	32	1	74.71	32	161	5	32.11
	1496	Larpenteur		8	2 74.71	64	2	74.71	64	2	74.71	64	2	74.71	64	2	74.71	64	321	8	40.14
	1504	Larpenteur		10	3 74.71	96	2	74.71	64	2	74.71	64	2	74.71	64	2	74.71	64	353	10	35.32
	1510	Larpenteur		10	3 74.71	96	2	74.71	64	3	74.71	96	1	74.71	32	2	74.71	64	353	10	35.32
Falcon Arms Apts.	1717	Fry		17	3 74.71	96	2	74.71	64	3	74.71	96	2	74.71	64	3	74.71	96	417	17	24.55
Falcon Arms Apts.	1707	Fry		17	2 74.71	64	2	74.71	64	3	74.71	96	2	74.71	64	2	74.71	64	353	17	20.78
Falcon Arms Apts.	1697	Fry		17	3 74.71	96	3	74.71	96	2	74.71	64	3	74.71	96	3	74.71	96	450	17	26.44
Falcon Arms Apts.	1687	Fry		17	2 74.71	64	3	74.71	96	2	74.71	64	3	74.71	96	2	74.71	64	385	17	22.67
	1707	Lindig		12	1 74.71	32	1	74.71	32	1	74.71	32	1	74.71	32	3	74.71	96	225	12	18.73
Shares w/1855	1845	Larpenteur		34	4 74.71	128	4	74.71	128	4	74.71	128	4	74.71	128	3	74.71	96	610	34	17.94
	1707	Tatum		11	2 74.71	64	2	74.71	64	0	74.71		2	74.71	64	2	74.71	64	257	11	23.35
Condominiums	1666	Coffman		93	15 74.71	482	16	74.71	514	16	74.71	514	17	74.71	546	17	74.71	546	2601	93	27.97
	1830	Larpenteur		17	3 74.71	96	4	74.71	128	5	74.71	161	4	74.71	128	4	74.71	128	642	17	37.78
Fairfield Apts. 1800 & 1818	1800	Larpenteur		36	8 74.71	257	8	74.71	257	7	74.71	225	8	74.71	257	8	74.71	257	1252	36	34.79
The Hendrickson Senior living	1750	Larpenteur	6	66	11 74.71	353	8	74.71	257	0	74.71		8	74.71	257	12	74.71	385	1252	66	18.97
Larpenteur Manor 1710,-20,-30,-40	1710	Larpenteur		144	11 74.71	353	14	74.71	450	14	74.71	450	14	74.71	450	14	74.71	450	2151	144	14.94
Shares w/1550	1530	Larpenteur		175	20 74.71	642	14	74.71	450	10	74.71	321	18	74.71	578	0	74.71	0	1991	175	11.38
Total Number of Units				780															15,814 7.907088		

APPENDIX E - MONTHLY SINGLE FAMILY REPORT DATA (EXAMPLE)

	2021	Decemb										
FRI RTE #1	Week 1	Week 2	Week 3	Week 4	Week 5							
Tons - Load 1	4.02	4.10	4.00	4.42	5.11							
Tons - Load 2	0.00	0.00	0.00	0.00	0.00	Net Total						
TOTAL Tons	4.02	4.10	4.00	4.42	5.11	21.65						
# of Stops	760	760	760	760	760	Averages						
Not outs	87	100	89	96	115	97						
% of Serviced Accounts	89%	87%	88%	87%	85%	88%						
Lbs per Stop Recycled	11.95	12.42	11.92	13.31	15.84	12.40	FRIDAY ROUTE SUMMA	RY FOR		December	2021	
FRI RTE # 2	Week 1	Week 2	Week 3	Week 4	Week 5		FRIDAY	Week 1	Week 2	Week 3	Week 4	Week 5
Tons - Load 1	3.90	3.69	3.51	3.53	3.79							
Tons - Load 2	0.00	0.00	0.00	0.00	0.00	Net Total						
TOTAL Tons	3.90	3.69	3.51	3.53	3.79	18.42	TOTAL Tons	7.92	7.79	7.51	7.95	8.90
# of Stops	472	472	472	472	472	Averages	# of Stops	1232	1232	1232	1232	1232
Not outs	76	90	73	126	97	91	Not outs	163	190	162	222	212
% of Serviced Accounts	84%	81%	85%	73%	79%	81%	% of Participation	87%	85%	87%	82%	83%