

January 6, 2025

Jonathan Hohenstein, Treasurer  
Howell Township  
3525 Byron Road  
Howell, MI 48855

RE: Heritage Square PUD  
Review of Traffic Improvement Contribution

Mr. Hohenstein

We were asked to review the *Future Traffic Generation* Spreadsheet and *Traffic Contribution* memo provided by Kevin McDevitt of Monument Engineering Group Associates (MEGA). We evaluated the Township's request with two different approaches. The First approach evaluated the provided data from MEGA and the appropriateness of the values and methodology. The second approach evaluated the increased impact on traffic resulting from deviations granted by the PUD.

In the worksheet provided by MEGA's, they determined the number of units that will impact the traffic in segments with proposed improvements by multiplying the total acreage of each parcel by the minimum acreage / unit, respective to its zoning, then dividing this value by a 'Lot Size Multiplier' (value of 1.4 universally). Heritage Square's site contribution was calculated using the specific number of units proposed for the development. The two factors should be evaluated using the same criteria in order to derive a percentage of contribution.

The Township evaluated each parcel listed in the 'Details' tab of the Future Traffic Generation spreadsheet for all the parcels listed in Howell Township. It was determined that the potential number of developable units was significantly less than the value provided by MEGA. The Township's determination was a potential of 596 total units, equating to 5,671 ADT (Average Daily Traffic). MEGA determined that there was a potential for 3,471 units equating to 79,236 ADT. See Table 1 and Table 2 below.

Table 1: MEGA ADT			
		ADT/unit	ADT
2,877	SFR	10.05	28,903
461	MFR	6.77	3,125
133	RSC	354.74	47,209
<b>3,471</b>	<b>Total</b>		<b>79,236</b>

<b>Table 2: Howell Township ADT</b>			
		ADT/unit	ADT
31	SFR	10.05	311
97	MFR	6.77	657
468	AR	10.05	4,702
<b>596</b>	<b>Total</b>		<b>5,671</b>

Using the units per parcel values provided by the Township to determine the number of units contributing to the overall traffic impacts the percentage of contribution from Heritage Square significantly. Please see Table 3 below for the calculated percentages.

<b>Table 3: Percent Contribution using MEGA Methodology</b>		
	MEGA	Howell Township
Traffic Contributors (ADT)	112,694	50,617
Traffic Generated by Heritage Square (ADT)	4,007	4,007
Percent Contribution	<b>3.56%</b>	<b>7.92%</b>

This method of determination does not account for how the units for the other municipalities (Handy Township, Iosco Township, and Marion Township) were tabulated. If the same evaluation of potential units was applied to the remaining contributing municipalities it is likely that the contributing ADT value would be lower, thus the Heritage Square contribution would be higher.

Also to consider when determining contribution to the road improvements is the impact of the PUD deviation from the land use by right as previously zoned. The increase in single family residential allotment results in an increase of 137 ADT or a 3.41% increase in daily traffic generated. Please see Table 4 and Table 5 below.

<b>Table 4: Heritage Square Generation of ADT Based on Ordinance Land Use</b>				
<b>SIZE</b>	<b>ZONING</b>	<b>ZONING MIN LOT SIZE</b>	<b>LOT SIZE MULTIPLIER FOR COMMON AREA</b>	<b>NO. OF UNITS</b>
24.00	SFR	10,000	1.4	75
44.44	MFR	3,000	1.4	461
<b>Zoning</b>	<b>Units</b>		<b>ADT/unit</b>	<b>ADT</b>
MFR	461		6.77	3,120
SFR	75		10.05	750
			Total	<b>3,871</b>

<b>Table 5: Increase in ADT Granted by Deviation from Ordinance</b>	
<b>ADT Contributed by Heritage Square per MEGA</b>	4,007
<b>ADT Based on Ordinance Land Use</b>	3,871
% Increase	
$(4007-3871)/4007 =$	<b>3.41%</b>

Please see Table 6 and Table 7 Below for Spicer Group/ Howell Townships recommended traffic improvement contribution.

<b>Table 6: Percentage of Contribution by Approach</b>			
<b>Approach</b>	<b>ADT of All Contributors</b>	<b>ADT Contribution From Heritage Square</b>	<b>Percentage of Contribution</b>
Using MEGA methodology for Heritage Square contribution to ADT and Howell Township feasible developable Units	50,617	4,007	<b>7.92%</b>
Comparing ADT impact of PUD land use alterations	See Table 5		<b>3.41%</b>
		<b>Average</b>	<b>5.66%</b>

<b>Table 7: Township/ Spicer Group Proposed Contribution</b>			
	<b>Contribution</b>	<b>Calculation</b>	<b>Total</b>
<b>Burkhart &amp; Milet &amp; M-59 &amp; EB I-96 Ramps: Roundabout Improvements</b>	\$4,200,000.00	$= \$4,200,000 \times 0.0566 =$	<b>\$237,803.26</b>
	5.66%		
<b>Burkhart Road &amp; Mason Road: Single-lane roundabout or traffic signals with roadway widening</b>	\$1,500,000.00	$= \$1,500,000 \times 0.0566 =$	<b>\$84,929.74</b>
	5.66%		
<b>Burkhart &amp; Milet &amp; M-59 &amp; EB I-96 Ramps: Relocate Marketplace Drive and Milet Road</b>	\$2,000,000.00	$= \$2,000,000 \times 0.0566 =$	<b>\$113,239.65</b>
	5.66%		
<b>M-59 &amp; WB I-96 Ramps: Traffic Signals</b>	\$250,000.00	$= \$250,000 \times 0.0566 =$	<b>\$14,154.96</b>
	5.66%		
			<b>\$450,127.60</b>

Livingston County Road Commission's (LCRC) provided a Cost Estimate for the PUD traffic increase on 8/20/2024. Their traffic increases were computed by dividing the total build volumes by the total no build volumes at each intersection. Their determination is summarized in Table 8 Below.

<b>Table 8: LCDC Proposed Contribution</b>			
	<b>Contribution</b>	<b>Calculation</b>	<b>Total</b>
<b>Burkhart &amp; Milet &amp; M-59 &amp; EB I-96 Ramps: Roundabout Improvements</b>	\$4,200,000.00	$= \$4,200,000 \times 0.15 =$	<b>\$630,000.00</b>
	15.000%		
<b>Burkhart Road &amp; Mason Road: Single-lane roundabout or traffic signals with roadway widening</b>	\$1,500,000.00	$= \$1,500,000 \times 0.10 =$	<b>\$150,000.00</b>
	10.000%		
<b>Burkhart &amp; Milet &amp; M-59 &amp; EB I-96 Ramps: Relocate Marketplace Drive and Milet Road</b>	\$2,000,000.00	$= \$2,000,000 \times 0.15 =$	<b>\$300,000.00</b>
	15.000%		
<b>M-59 &amp; WB I-96 Ramps: Traffic Signals</b>	\$250,000.00	$= \$250,000 \times 0.08 =$	<b>\$20,000.00</b>
	8.00%		
			<b>\$1,100,000.00</b>

In Monument Engineering's 11/01/2024 Memo, they requested to be exempt from contributing to the Marketplace Drive and Milet Road improvements and be responsible for a percentage of \$3,700,000 in lieu of the \$7,950,000 outlined in the 08/20/2024 LCRC cost estimate. It was unclear how their \$3,700,000 value was determined. They proposed a 3.5% contribution equating to a total of \$129,500 towards road improvements.

The road improvements are related to the roundabout which will service the development and should be included in the determination of the Heritage Square contribution.

Please see Table 9 below for a summation of the proposed Road Improvement contributions.

<b>Table 9: Proposed Contribution Summary Table</b>			
	<b>Spicer Group</b>	<b>LCDC</b>	<b>MEGA</b>
<b>Total Percentage</b>	5.66%	13.84%	3.50%
<b>Total Cost</b>	\$ 7,950,000.00	\$ 7,950,000.00	\$ 3,700,000.00
<b>Total Contribution</b>	\$ 450,127.60	\$ 1,100,000.00	\$ 129,500.00

January 6, 2025  
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Please see the attached Future Traffic Generation Worksheet and Heritage Square – traffic Contribution memo for supporting information.

If you have any questions or need anything further, please feel free to contact our office.

Sincerely,



**Adam C. Jacqmain**  
Design Engineer  
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**Philip A. Westmoreland, P.E.**  
Principal  
Phone: (517) 375-9449  
[philaw@spicergroup.com](mailto:philaw@spicergroup.com)

CC: SGI File  
Kevin McDevitt, MEGA  
Al Pruss, MEGA

# LIVINGSTON COUNTY ROAD COMMISSION

3535 Grand Oaks Drive • Howell, MI 48843-8575

(517) 546-4250 • Fax (517) 546-9628

[www.LivingstonRoads.org](http://www.LivingstonRoads.org)



February 28, 2025

Mr. Mike Coddington, Supervisor  
Howell Township  
3525 Byron Road  
Howell, MI 48855

Re: Potential 2025 Gravel Road Projects

Dear Mr. Coddington:

Per your request, we are providing you with a list of potential gravel road improvement projects for your review. The location and estimate of each project are shown in the following table.

ROAD	LOCATION	TYPE OF WORK	AMOUNT
Layton Road	Millett to Pavement (6,500' feet)	Limestone Refurbishing and Limited Drainage	\$190,000.00
Fisher Road	Marr to Barron (5,200 feet )	Limestone Resurfacing and limited Drainage	\$233,000.00

Please review the above list and contact me if you wish to have contracts prepared for any of the projects. In order for projects to be included on this year's construction schedule, all contracts must be in place by May 1, 2025.

If you have any questions, please do not hesitate to contact Todd Musson or me.

Sincerely,

Trevor Bennett  
Director of Operations

Cc: Todd Musson, LCRC District 1 Foreman  
File

## LCRC 2024-2028 PPP Asset Management Plan

Howell Township

Disclaimer: The following list is a planning document and projects/ budgets identified are subject to change due to funding, budget, and other unforeseen infrastructure issues. Project estimates are for planning purposes only and are approximate

Road Name	From	To	Primary / Local	Miles	Treatment	Estimated Project Cost	LCRC Cost Sharing	Twp Contributions	LCRC Share
<b>2024</b>									
Layton Rd	EOP	EOP	Local	0.53	Crush & Shape w/ HMA	\$ 225,250	50%	\$ 112,625	\$ 112,625
Fleming Rd	Grand River Ave	End of Pavt	Local	0.30	Crush & Shape w/ HMA	\$ 127,500	50%	\$ 63,750	\$ 63,750
				0.83		\$ 352,750		\$ 176,375	\$ 176,375
<b>2025</b>									
Oak Grove Rd	M-59	Fisher Rd	Primary	0.85	Mill & Resurface w/ 3' HMA Shldr	\$ 510,000	50%	\$ 255,000	\$ 255,000
Byron Rd	M-59	Allen Rd	Primary	4.81	Crack Seal	\$ 31,278	100%	\$ -	\$ 31,278
Tooley Rd	M-59	End of Pavt	Local	1.05	Crack Seal	\$ 6,806	100%	\$ -	\$ 6,806
				6.71		\$ 548,084		\$ 255,000	\$ 293,084
<b>2026</b>									
Tooley Rd	M-59	End of Pavt	Local	1.05	Chip Seal w/ Fog	\$ 41,880	50%	\$ 20,940	\$ 20,940
Burkhart Rd	M-59	CSX RailRoad	Primary	0.61	Mill & Resurface w/ 3' HMA Shldr	\$ 549,000	50%	\$ 274,500	\$ 274,500
Burkhart Rd	Mason Rd	I-96 Ramp	Primary	0.91	Crack Seal	\$ 5,915	100%	\$ -	\$ 5,915
				2.57		\$ 596,795		\$ 295,440	\$ 301,355
<b>2027</b>									
Oak Grove Rd	Fisher Rd	Barron Rd	Primary	1.24	Mill & Resurface w/ 3' HMA Shldr	\$ 744,000	50%	\$ 372,000	\$ 372,000
Burkhart Rd	Grand River Ave	Crandall Rd	Primary	3.26	Crack Seal	\$ 21,190	100%	\$ -	\$ 21,190
Owosso Rd	Grand River Ave	Geer Rd	Primary	1.74	Crack Seal	\$ 11,310	100%	\$ -	\$ 11,310
				6.24		\$ 776,500		\$ 372,000	\$ 404,500
<b>2028</b>									
Oak Grove Rd	Barron Rd	Marr Rd	Primary	1.01	Mill & Resurface w/ 3' HMA Shldr	\$ 604,200	50%	\$ 302,100	\$ 302,100
Oak Grove Rd	Marr Rd	Allen Rd	Primary	1.49	Crush & Shape w/ HMA	\$ 631,125	50%	\$ 315,563	\$ 315,563
				2.49		\$ 1,235,325		\$ 617,663	\$ 617,663

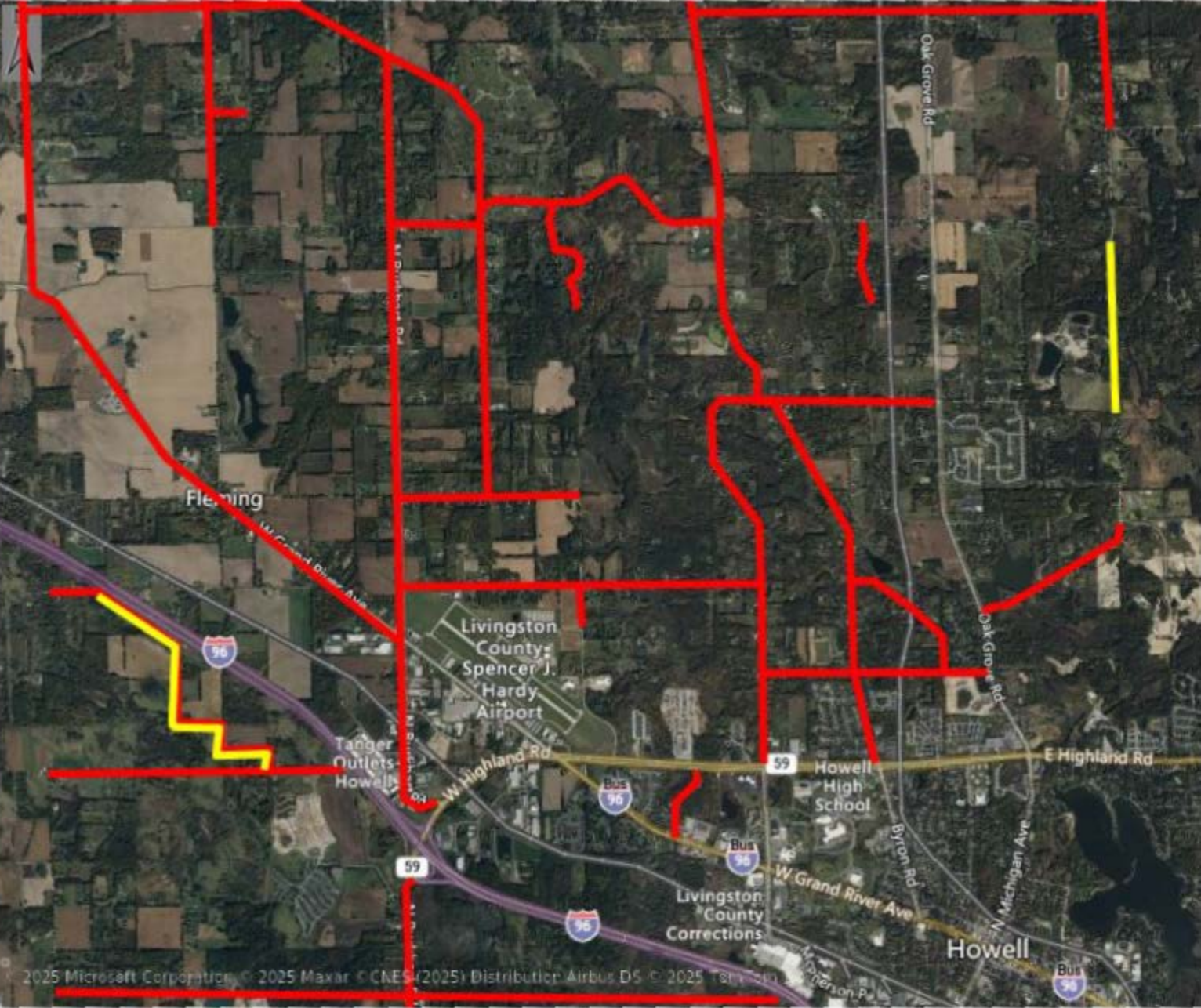


**Completed Road Maintenance Projects from 2014-2024**

- Bowen Road (Tooley to Brewer) – Limestone & Drainage – Completed 2024
- Layton Road (Paved Portion) – HMA – Completed: 2024
- Fleming Road (Marr to Allen)- Gravel- Completed: 9/6/2023
- Marr Road (Burkhart to the bridge)- Limestone- Completed: 6/12/2023
- Marr Road (Bridge to Byron)- Limestone- Completed: 6/26/2023
- Crandall Road (Marr to Burkhart)- Gravel & Drainage- Completed: 8/22/2022
- Allen Road (Oak Grove to Fisher)- Gravel & Drainage- Completed: 9/7/2022
- Barron Road (Oak Grove to Byron)- Limestone & Drainage- Completed: 8/29/2022
- Armond Road (Henderson to Byron)- Limestone & Drainage- Completed: 8/31/2022
- Allen Road (Owosso to Crandall)- Limestone & Drainage- Completed: 7/22/2019
- Fisher (East of Oak Grove)- Limestone & Drainage- Completed: 7/17/2019
- Henderson Road (Oak Grove to Brewer)- Gravel & Drainage- Completed: 7/11/2019
- Brewer Road (Henderson to Byron)- Gravel & Drainage- Completed: 7/16/2018
- Layton Road (North of Milett)- Limestone & Drainage- Completed: 7/23/2018
- Bowen Road (Tooley to Burkhart)- Gravel & Drainage- Completed: 7/21/2017
- Fisher Road (Clyde to Allen)- Gravel & Drainage- Completed: 9/8/2017
- Milett Road (East of Truhn)- Surface Gravel- Completed: 3/17/2017
- Tooley Road (South of Bowen)- Limestone and Drainage- Completed: 3/31/2017
- Warner Road (Burkhart to Tooley)- Limestone & Drainage- Completed: 4/20/2017
- Crandall Road (Warner to Marr)- Gravel & Drainage- Completed: 7/1/2016
- Crandall Road (Burkhart to Allen)- Gravel- Completed: 5/10/2016
- Warner Road (West of Grand River)- Limestone & Drainage- Completed: 11/1/2014
- Layton Road (North of Milett)- Limestone & Drainage- Completed: 11/1/2014
- Milett Road (East of Layton)- Limestone- Completed: 11/1/2014

**Completed Road Improvement Projects done by the Livingston County Road Commission's Engineering Department over the past 10 years.**

- Owosso Road (Grand River to Allen)- Asphalt Rehabilitation- Completed: 2019
- Byron Road (M-59 to Allen)- Asphalt Rehabilitation– Completed: 2020
- Mason Road (Truhn to Burkhart)- Asphalt Rehabilitation– Completed: 2020
- Burkhart Road (I-96 to Mason)- Asphalt Rehabilitation– Completed: 2021
- Burkhart Road (Rail Road Tracks to Grand River)- Asphalt Rehabilitation- Completed: 2021
- Burkhart Road (Grand River to Crandall)- Asphalt Rehabilitation– Completed: 2022
- Mason Road (Burkhard to M-155)- Asphalt Rehabilitation– Completed: 2022



## Cash Flow Using Budgeted Revenue

Sewer & Water Fund Cash Flow												
	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
Beg. Cash Balance	\$2,102,396	\$2,203,400	\$2,046,682	\$2,266,000	\$1,851,852	\$2,062,703	\$2,248,508	\$2,365,519	\$2,381,999	\$2,398,480	\$2,414,960	\$2,431,440
Proj./Actual Net Rev.												
592 Sewer/Water	\$101,004	(\$156,717)	\$219,318	(\$414,148)	\$210,851	\$185,805	\$117,011	\$16,480	\$16,480	\$16,480	\$16,480	\$16,480
Total Revenue	\$101,004	(\$156,717)	\$219,318	(\$414,148)	\$210,851	\$185,805	\$117,011	\$16,480	\$16,480	\$16,480	\$16,480	\$16,480
General Fund Payback												
Total Payments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Ending Cash Balance	\$2,203,400	\$2,046,682	\$2,266,000	\$1,851,852	\$2,062,703	\$2,248,508	\$2,365,519	\$2,381,999	\$2,398,480	\$2,414,960	\$2,431,440	\$2,447,921
CD Bal \$300,000												
General Fund Cash Flow												
	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
Beginning Balance	\$4,406,309	\$4,385,976	\$3,103,071	\$3,278,884	\$3,605,034	\$3,658,470	\$3,590,754	\$3,703,705	\$3,703,856	\$3,704,008	\$3,704,159	\$3,704,310
Proj./Actual Net. Rev.	(\$20,332)	(\$1,282,906)	\$175,813	\$326,150	\$53,436	(\$67,716)	\$112,951	\$151	\$151	\$151	\$151	\$151
Ending Cash Balance	\$4,385,976	\$3,103,071	\$3,278,884	\$3,605,034	\$3,658,470	\$3,590,754	\$3,703,705	\$3,703,856	\$3,704,008	\$3,704,159	\$3,704,310	\$3,704,462
CD Bal \$2,600,000												
Twp At-Large \$411,652												
Road Fund Cash Flow												
	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
Beginning Balance	\$688,969	\$660,969	\$645,626	\$519,629	\$329,224	\$329,450	\$351,294	\$641,315	\$781,315	\$781,315	\$781,315	\$781,315
Proj./Actual Net. Rev.	(\$28,001)	(\$15,343)	(\$125,996)	(\$190,405)	\$226	\$21,844	\$290,022	\$140,000	\$0	\$0	\$0	\$0
Ending Cash Balance	\$660,969	\$645,626	\$519,629	\$329,224	\$329,450	\$351,294	\$641,315	\$781,315	\$781,315	\$781,315	\$781,315	\$781,315
CD Bal \$100,000												
Parks & Rec Fund Cash Flow												
	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
Beginning Balance	\$390,469	\$359,745	\$1,559,504	\$1,559,871	\$1,529,109	\$1,527,286	\$1,528,814	\$1,708,684	\$1,708,684	\$1,708,684	\$1,708,684	\$1,708,684
Proj./Actual Net. Rev.	(\$30,724)	\$1,199,759	\$366	(\$30,762)	(\$1,822)	\$1,528	\$179,870	\$0	\$0	\$0	\$0	\$0
Ending Cash Balance	\$359,745	\$1,559,504	\$1,559,871	\$1,529,109	\$1,527,286	\$1,528,814	\$1,708,684	\$1,708,684	\$1,708,684	\$1,708,684	\$1,708,684	\$1,708,684
CD Bal \$1,200,000												
ARPA Fund Cash Flow												
	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
Beginning Balance	\$149,280	\$149,469	\$79,571	\$79,609	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Proj./Actual Net. Rev.	\$189	(\$69,898)	\$38	(\$79,609)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Ending Cash Balance	\$149,469	\$79,571	\$79,609	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0