



TRANSPORTATION UTILITY FEE ANALYSIS

SOUTH SALT LAKE CITY, UTAH

JUNE 2025



INTRODUCTION

The purpose of this report is to provide a summary of the methodology and findings of the transportation utility fee (TUF) study prepared by EFG Consulting (EFG) for South Salt Lake City (City). EFG teamed with Hales Engineering to develop a methodology to allocate future road costs to specific users based upon their respective impact to the transportation system. Our team worked closely with the public works and finance departments to develop budgeted costs that are the basis for this analysis. This fee covers roadways and street lighting.

BACKGROUND

Many cities in Utah have found that revenue sources to pay for roadway needs have not kept up with the expenditure requirements. Many Utah municipalities have begun looking to TUF to supplement other dedicated tax revenues. Cody Deeter, President and CEO of EFG, assisted Pleasant Grove City with the development of the first TUF in Utah in 2016. After adoption, this fee was challenged as unconstitutional. In 2023, the Utah Supreme Court ruled in favor of the City.¹ The Court found that a city needed to do two things to ensure the TUF is constitutional:

1. They must create a dedicated transportation fund to collect all transportation revenues and account for all expenditures. This would ensure the public can track the funds collected and spent.
2. The city must create a strong nexus between the fee charged and the impact upon the roadways.

Our team deployed this methodology in creating the fee adopted by the City.

REPORT

This report will provide the following:

1. Methodology
2. Recommended Fee

Additional information is provided in the Appendices.

- Appendix A – Capital Improvement Plan
- Appendix B – Financial Dashboard
- Appendix C – Cashflow Analysis
- Appendix D – Hales Memo
- Appendix E – City Council Presentation

¹ <https://legacy.utcourts.gov/opinions/supopin/Larson%20v.%20Pleasant%20Grove%20City20230223.pdf>

METHODOLOGY

The goal of this analysis was to create an equitable fee to charge users of the transportation system based upon their usage. **Step one** was the development of a 10-year projection of expenditures and the ultimate annual revenue requirement to collect from users. **Step two** allocated those expenses to specific user classes based upon their usage impact to the system.

STEP ONE – REVENUE REQUIREMENT

Our team developed a 10-year projection of operation and maintenance expenses. This included all personnel, supplies, equipment, and related expenses for streets and streetlights. The total operating expenditures in FY2026 was estimated at \$3.35m

This analysis then added the public works department's capital improvement plan (CIP). The CIP included capital costs for annual pavement management and rebuilding of roadways over the next 15 years. See **Appendix A – Capital Improvement Plan** for a copy of the CIP. The CIP details \$68.8m in projects over the next 10 years.

Our team then considered any need for the use of debt and any available grants. We determined that no debt was needed nor any major grants available. However, if debt is needed in the future, the newly created transportation fund can support the debt fully without relying upon other City revenue sources as a pledge.

Our team then measured the cash balances as the major financial metric as a mitigation against potential emergencies. The industry standard from rating agencies (Moody's, S&P, and Fitch Ratings) is 360 days of working cash as an emergency reserve. This equates to one year of operating expenses or \$3.35m.

The total revenue requirement to cover the expenses described above is \$9.7m. The City anticipates receiving \$1m in Class C Road Funds which represent the City's proportionate share of gas taxes collected by the state and allocated to each municipality. The City also anticipates receiving \$1.7m in County Option Highway taxes which are sales taxes collected within Salt Lake County and allocated to the City. After applying these two sources, the City would need to collect \$7m in revenue from the TUF.

See **Appendix B – Financial Dashboard** for a graphical display of cashflows and financial metrics.

See **Appendix C – Cashflow Analysis** for detailed projections of cashflows.

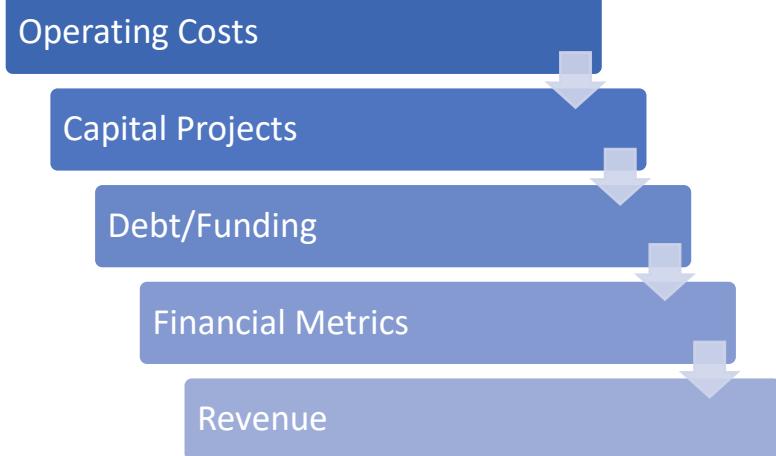


Figure 1- Methodology

STEP TWO – ALLOCATION

Hales Engineering (Hales) developed a transportation model that determined a standard equivalent residential unit (ERU) based upon trip ends and equivalent single axel load (ESAL). One ERU represents the road impact of a single-family home on the roads. Other users of the system were grouped into similar usage groups based upon their trip end generation and ESAL. The four user classes in this analysis are:

- Residential
- Retail/Commercial
- Industrial
- Office

Hales analysis determined the following ERU multiplier for the three non-residential categories on a per thousand square feet (KSF) basis. See **Appendix D – Hales Memo**.

- Retail/Commercial – 7.76 ERUs/KSF
- Industrial – 9.27 ERUs/KSF
- Office – 3.96 ERUs/KSF

The City provided the number of dwelling units (DU) and KSF for each user type and the number of ERUs (using the multiplier above) as follows:

- Residential – 10,700 DU or 10,700 ERUs
- Retail/Commercial – 6,317 KSF or 49,012 ERUs
- Industrial – 15,002 KSF or 139,066
- Office – 2,572 KSF or 10,198

The total ERUs within the City is 208,976. The charge per ERU was obtained by dividing the revenue requirement from the TUF (\$7m) by the number of ERUs. This equates to \$2.79 per ERU/month.

FEE SCHEDULE

Based upon the analysis above, the following fee schedule is recommended for adoption by the City.

User Type	ERU / Type	Monthly Rate / DU or KSF
Residential	1.00	\$ 2.79
Office	3.96	11.07
Retail/Com	7.76	21.66
Industrial	9.27	25.87

As an example, the average office space in the City is 13,000 sf. The monthly fee for this office would be $13 \times \$11.07$ or $\$143.87$ /month.

Note: the City has discussed excluding the residential fee. This would reduce revenue by \$360k in year one. The City would need to either reduce expenditures in the transportation fund or provide a general fund transfer to cover the shortfall.

APPENDIX A – CAPITAL IMPROVEMENT PLAN

Project Type	Phasing Year	Recommended Project	Location	Estimated Cost (2024)	Priority	Projected year of completions	Status
Preventive maintenance	0-15 yrs.	Crack Seal		\$100,000	*	Annual	Ongoing
Preventive maintenance	0-15 yrs.	Slurry Seal/Seal Coat		\$300,000	*	Annual	Ongoing
Preventive maintenance	0-15 yrs.	Micro Surface		\$325,000	*	Annual	Ongoing
Routine maintenance	0-15 yrs.	Pavement markings		\$35,000	*	Annual	Ongoing
Routine maintenance	0-15 yrs.	Curb and Gutter Improvements		\$40,000	*	Annual	Ongoing
Routine maintenance	0-15 yrs.	Trip Hazard Mitigation/ADA Ramps		\$60,000	*	Annual	Ongoing
Pavement Reconstruction	0-5 yrs.	Reconstruct	700 West 3300-3900 S	\$3,700,000	High	2025	In Progress
Pavement Reconstruction	0-5 yrs.	Reconstruct	Gregson Ave Main-State St	\$1,050,570	High	2025	In Design
Pavement Reconstruction	0-5 yrs.	Reconstruct	Maxwell Lane 2890 S. 300-400 E	\$1,930,663	Med	2025	In Design
Pavement Reconstruction	0-5 yrs.	Reconstruct	Robert Ave 300-400 E	\$798,993	Med	2025	In Design
Pavement Reconstruction	0-5 yrs.	Reconstruct	Carole Cir. 300 E. to End	\$280,703	Med	2025	In Design
Pavement Reconstruction	0-5 yrs.	Reconstruct	Cordelia Ave 200-300 E	\$856,152	Med	2025	In Design
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	Truman Ave Main-State St	\$122,980	High	2025	Planned (in-house)
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	Haven Ave 300-400 E	\$99,000	Med	2025	Planned (in-house)
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	400 E 2240-2290 S	\$66,256	Med	2025	Planned (in-house)
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	2400 S Main-West Temple	\$119,720	Med	2025	Planned (in-house)
Pavement Reconstruction	0-5 yrs.	Reconstruct	Burton Ave. Main-West Temple	\$1,090,175	High	2026	
Pavement Reconstruction	0-5 yrs.	Reconstruct	Oakland Ave 100-160 E	\$437,500	High	2026	In Design
Pavement Reconstruction	0-5 yrs.	Reconstruct	White Place Main-State St.	\$539,000	Med	2026	
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	Bank Ave. 100-200 E	\$98,000	Med	2026	Planned (in-house)
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	Gregson Ave Main-West Temple	\$106,580	Med	2026	Planned (in-house)
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	Garden Ave 100 - 300 E	\$168,000	Med	2026	Planned (in-house)
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	200 E 2940-3020 S	\$66,000	Med	2026	Planned (in-house)
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	Baird Ave 100-300 E	\$282,000	Med	2027	Planned (in-house)
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	Helm Ave 100-300 E	\$300,000	Med	2027	Planned (in-house)
Pavement Reconstruction	0-5 yrs.	Reconstruct	Truman Ave 120-300 E	\$1,056,196	Med	2027	In Design
Pavement Reconstruction	0-5 yrs.	Reconstruct	Georgia Cir. 300-366 E	\$411,140	Med	2027	In Design
Pavement Reconstruction	0-5 yrs.	Reconstruct	300 West 3300 - 3900 S	\$7,553,000	High	2028	STP Grant
Pavement Reconstruction	0-5 yrs.	Reconstruct	3680 S. 200-300 West	\$998,000	Med	2028	In Design
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	3620 S 200-300 W	\$83,040	Med	2028	Planned (in-house)
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	600 West 2100 - 3300 S	\$1,476,000	High	2029	
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	2400 S 800 - 900 W	\$130,152	Med	2029	
Pavement Rehabilitation	0-5 yrs.	Mill and Overlay	2500 S 800 - 900 W	\$124,544	Med	2029	
Pavement Reconstruction	0-5 yrs.	Reconstruct	800 W 2400 - 2600 S	\$1,592,500	Med	2029	
Pavement Reconstruction	5-10 yrs.	Reconstruct	Oakland Ave. 300-400 E	\$682,500	High		
Pavement Reconstruction	5-10 yrs.	Reconstruct	Robert Ave 400-500 E	\$761,250	Med		

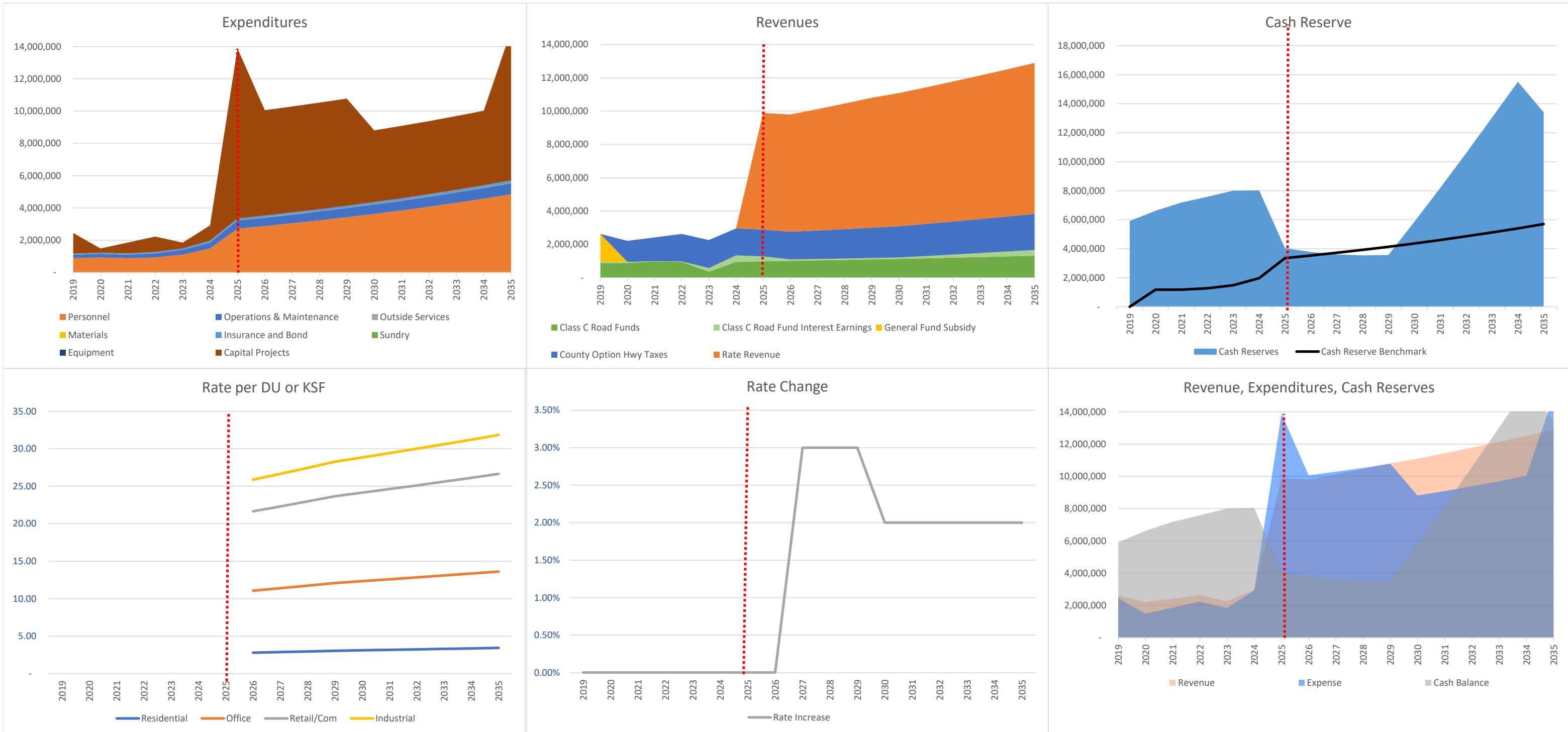
Pavement Reconstruction	5-10 yrs.	Reconstruct	Vidas Ave 300-400 E	\$945,000	Med		
Pavement Reconstruction	5-10 yrs.	Reconstruct	Burton Ave 200-300 E	\$945,000	Med		
Pavement Reconstruction	5-10 yrs.	Reconstruct	Panama St 2150 - 2190 S	\$206,150	Med		
Pavement Reconstruction	5-10 yrs.	Reconstruct	Malvern Ave. Main-West Temple	\$1,113,700	Med		
Pavement Reconstruction	5-10 yrs.	Reconstruct	Claybourne Ave Main-State St.	\$1,053,500	High		
Pavement Reconstruction	5-10 yrs.	Reconstruct	Sunset Ave Main-West Temple	\$1,099,000	Med		
Pavement Reconstruction	5-10 yrs.	Reconstruct	Russett Ave. Main-West Temple	\$1,061,900	Med		
Pavement Reconstruction	5-10 yrs.	Reconstruct	Bowers Way Main-West Temple	\$828,800	Med		
Pavement Rehabilitation	5-10 yrs.	Mill and Overlay	200 E 2100 - 2335 S	\$295,200	Med		
Pavement Rehabilitation	5-10 yrs.	Mill and Overlay	300 East 2100 - 3300 S	\$1,582,400	Med		
Pavement Rehabilitation	5-10 yrs.	Mill and Overlay	Mansfield Ave 500-700 E	\$175,336	Med		
Pavement Rehabilitation	5-10 yrs.	Mill and Overlay	Springview Dr 600-700 E	\$135,360	Med		
Pavement Rehabilitation	5-10 yrs.	Mill and Overlay	Green St 3115-3190 S	\$94,208	Med		
Pavement Rehabilitation	5-10 yrs.	Mill and Overlay	Robert Ave Main-West Temple	\$87,600	Med		
Pavement Rehabilitation	5-10 yrs.	Mill and Overlay	Louise Ave Main-West Temple	\$81,000	Med		
Pavement Rehabilitation	5-10 yrs.	Mill and Overlay	Oakland Ave 100-200 E	\$76,160	Med		
Pavement Rehabilitation	5-10 yrs.	Mill and Overlay	Beryl Ave 100-300 E	\$252,000	Med		
Pavement Reconstruction	10-15 yrs.	Reconstruct	Commonwealth Ave. 100-200 W	\$847,000	Med		
Pavement Reconstruction	10-15 yrs.	Reconstruct	Cordilla Ave Main-State St	\$997,500	Med		
Pavement Reconstruction	10-15 yrs.	Reconstruct	Claybourne Ave State-300 E	\$1,680,000	Med		
Pavement Reconstruction	10-15 yrs.	Reconstruct	Whitlock Ave Main-West Temple	\$496,860	Med		
Pavement Reconstruction	10-15 yrs.	Reconstruct	Crystal Ave Main-West Temple	\$1,106,175	Med		
Pavement Reconstruction	10-15 yrs.	Reconstruct	3030 South 100-200 W	\$777,000	Med		
Pavement Rehabilitation	10-15 yrs.	Mill and Overlay	Garden Ave 500-600 E	\$124,640	Med		
Pavement Rehabilitation	10-15 yrs.	Mill and Overlay	600 E 2960-3015 S	\$42,676	Med		
Pavement Rehabilitation	10-15 yrs.	Mill and Overlay	Leland Ave 500-700 E	\$247,800	Med		
Pavement Rehabilitation	10-15 yrs.	Mill and Overlay	Plymouth Ave 200-300 W	\$70,000	Med		
Pavement Rehabilitation	10-15 yrs.	Mill and Overlay	Stratford Ave 100-200 W	\$86,188	Med		
Pavement Rehabilitation	10-15 yrs.	Mill and Overlay	Lambourne Ave 300-400 E	\$117,440	Med		
Pavement Rehabilitation	10-15 yrs.	Mill and Overlay	Woodland Ave 400-500 E	\$117,440	Med		
Pavement Rehabilitation	10-15 yrs.	Mill and Overlay	200 E 2500-2700 S	\$189,076	Med		
Pavement Rehabilitation	10-15 yrs.	Mill and Overlay	Main Street 2100-3300 S	\$2,134,400	High		
Pavement Rehabilitation	10-15 yrs.	Mill and Overlay	West Temple 3300-3900 S	\$7,544,000	Med		
Total Streets Projects				\$54,451,123.00			

APPENDIX B – FINANCIAL DASHBOARD

South Salt Lake City, Utah

Transportation Utility Fee Analysis

Scenario 1:



APPENDIX C - CASHFLOW ANALYSIS

	Actuals						Historic	Future	Budget	Projected											
	2019	2020	2021	2022	2023	2024				2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	
Capital Projects	Year	Cost	5	5	5	5	5	10	10	10	10	10	10	10	10	10	10	10	10	15	
CLASS "C" ROADS - MAINTENANCE	10-61-420-00	69,404	169,222	423,678	675,273	241,831	799,756		895,000												
CLASS "C" EQUIPMENT	10-61-421-00	293,987	-	-	-	15,239	-														
CLASS "C" - MATERIALS	10-61-423-00	66,501	60,776	98,311	70,113	105,473	101,298		125,000												
CLASS "C" ROADS-CONSTRUCTION	10-61-425-00	852,565	36,180	157,814	205,113	(1,589)	50,775		3,789,036												
Crack Seal	Preventive maintenance							Annual	\$ 100,000	104,000	\$ 108,160	\$ 112,486	\$ 116,986	\$ 121,665	\$ 126,532	\$ 131,593	\$ 136,857	\$ 142,331	\$ 148,024		
Slurry Seal/Seal Coat	Preventive maintenance							Annual	300,000	312,000	324,480	337,459	350,958	364,996	379,596	394,780	410,571	426,994	444,073		
Micro Surface	Preventive maintenance							Annual	325,000	338,000	351,520	365,581	380,204	395,412	411,229	427,678	444,785	462,576	481,079		
Pavement markings	Routine maintenance							Annual	35,000	36,400	37,856	39,370	40,945	42,583	44,286	46,058	47,900	49,816	51,809		
Curb and Gutter Improvements	Routine maintenance							Annual	40,000	41,600	43,264	44,995	46,794	48,666	50,613	52,637	54,743	56,932	59,210		
Trip Hazard Mitigation/ADA Ramps	Routine maintenance							Annual	60,000	62,400	64,896	67,492	70,192	72,999	75,919	78,956	82,114	85,399	88,815		
700 West 3300-3900 S	Reconstruct							5	3,700,000	816,235	816,235	816,235	816,235	816,235	-	-	-	-	-		
Gregson Ave Main-State St	Reconstruct							5	1,050,570	231,760	231,760	231,760	231,760	231,760	-	-	-	-	-		
Maxwell Lane 2890 S. 300-400 E	Reconstruct							5	1,930,663	425,912	425,912	425,912	425,912	425,912	-	-	-	-	-		
Robert Ave 300-400 E	Reconstruct							5	798,993	176,261	176,261	176,261	176,261	176,261	-	-	-	-	-		
Carole Cir. 300 E. to End	Reconstruct							5	280,703	61,924	61,924	61,924	61,924	61,924	-	-	-	-	-		
Cordelia Ave 200-300 E	Reconstruct							5	856,152	188,871	188,871	188,871	188,871	188,871	-	-	-	-	-		
Truman Ave Main-State St	Mill and Overlay							5	122,980	27,130	27,130	27,130	27,130	27,130	-	-	-	-	-		
Haven Ave 300-400 E	Mill and Overlay							5	99,000	21,840	21,840	21,840	21,840	21,840	-	-	-	-	-		
400 E 2240-2290 S	Mill and Overlay							5	66,256	14,616	14,616	14,616	14,616	14,616	-	-	-	-	-		
2400 S Main-West Temple	Mill and Overlay							5	119,720	26,411	26,411	26,411	26,411	26,411	-	-	-	-	-		
Burton Ave. Main-West Temple	Reconstruct							5	1,090,175	240,497	240,497	240,497	240,497	240,497	-	-	-	-	-		
Oakland Ave 100-160 E	Reconstruct							5	437,500	96,514	96,514	96,514	96,514	96,514	-	-	-	-	-		
White Place Main-State St.	Reconstruct							5	539,000	118,906	118,906	118,906	118,906	118,906	-	-	-	-	-		
Bank Ave. 100-200 E	Mill and Overlay							5	98,000	21,619	21,619	21,619	21,619	21,619	-	-	-	-	-		
Gregson Ave Main-West Temple	Mill and Overlay							5	106,580	23,512	23,512	23,512	23,512	23,512	-	-	-	-	-		
Garden Ave 100 - 300 E	Mill and Overlay							5	168,000	37,061	37,061	37,061	37,061	37,061	-	-	-	-	-		
200 E 2940-3020 S	Mill and Overlay							5	66,000	14,560	14,560	14,560	14,560	14,560	-	-	-	-	-		
Baird Ave 100-300 E	Mill and Overlay							5	282,000	62,210	62,210	62,210	62,210	62,210	-	-	-	-	-		
Helm Ave 100-300 E	Mill and Overlay							5	300,000	66,181	66,181	66,181	66,181	66,181	-	-	-	-	-		
Truman Ave 120-300 E	Reconstruct							5	1,056,196	233,001	233,001	233,001	233,001	233,001	-	-	-	-	-		
Georgia Cir. 300-366 E	Reconstruct							5	411,140	90,699	90,699	90,699	90,699	90,699	-	-	-	-	-		
300 West 3300 - 3900 S	Reconstruct							5	7,553,000	1,666,222	1,666,222	1,666,222	1,666,222	1,666,222	-	-	-	-	-		
3680 S. 200-300 West	Reconstruct							5	998,000	220,163	220,163	220,163	220,163	220,163	-	-	-	-	-		
3620 S 200-300 W	Mill and Overlay							5	83,040	18,319	18,319	18,319	18,319	18,319	-	-	-	-	-		
600 West 2100 - 3300 S	Mill and Overlay							5	1,476,000	325,611	325,611	325,611	325,611	325,611	-	-	-	-	-		
2400 S 800 - 900 W	Mill and Overlay							5	130,152	28,712	28,712	28,712	28,712	28,712	-	-	-	-	-		
2500 S 800 - 900 W	Mill and Overlay							5	124,544	27,475	27,475	27,475	27,475	27,475	-	-	-	-	-		
800 W 2400 - 2600 S	Reconstruct							5	1,592,500	351,312	351,312	351,312	351,312	351,312	-	-	-	-	-		
Oakland Ave. 300-400 E	Reconstruct							10	682,500	-	-	-	-	-	202,053	202,053	202,053	202,053	202,053		
Robert Ave 400-500 E	Reconstruct							10	761,250	-	-	-	-	-	225,367	225,367	225,367	225,367	225,367		
Vidas Ave 300-400 E	Reconstruct							10	945,000	-	-	-	-	-	279,766	279,766	279,766	279,766	279,766		
Burton Ave 200-300 E	Reconstruct							10	945,000	-	-	-	-	-	279,766	279,766	279,766				

	Actuals						Historic	Future	Budget	Projected										
	2019	2020	2021	2022	2023	2024				2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
200 E 2500-2700 S	Mill and Overlay						15	189,076	-	-	-	-	-	-	-	-	-	-	91,394	
Main Street 2100-3300 S	Mill and Overlay						15	2,134,400	-	-	-	-	-	-	-	-	-	-	1,031,706	
West Temple 3300-3900 S	Mill and Overlay						15	7,544,000	-	-	-	-	-	-	-	-	-	-	3,646,547	
Depreciation or Asset Replacement																				
Total Capital Projects	\$ 1,282,457	\$ 266,178	\$ 679,803	\$ 950,499	\$ 360,954	\$ 951,829		\$ 54,451,123	\$ 10,542,570	\$ 6,527,934	\$ 6,563,710	\$ 6,600,917	\$ 6,639,612	\$ 4,443,797	\$ 4,485,650	\$ 4,529,177	\$ 4,574,445	\$ 4,621,524	\$ 9,286,420	
Change in Cash	\$ 177,600	\$ 716,768	\$ 557,809	\$ 402,264	\$ 415,743	\$ 35,432			\$ (3,997,630)	\$ (260,422)	\$ (166,012)	\$ (70,539)	\$ 25,381	\$ 2,279,421	\$ 2,340,971	\$ 2,396,431	\$ 2,445,072	\$ 2,485,714	\$ (2,098,560)	
Beginning Cash	5,731,066	5,908,666	6,625,434	7,183,243	7,585,507	8,001,250			8,036,682	4,039,052	3,778,630	3,612,618	3,542,080	3,567,461	5,846,882	8,187,853	10,584,284	13,029,356	15,515,070	
Ending Cash	\$ 5,908,666	\$ 6,625,434	\$ 7,183,243	\$ 7,585,507	\$ 8,001,250	\$ 8,036,682			\$ 4,039,052	\$ 3,778,630	\$ 3,612,618	\$ 3,542,080	\$ 3,567,461	\$ 5,846,882	\$ 8,187,853	\$ 10,584,284	\$ 13,029,356	\$ 15,515,070	\$ 13,416,510	
Reserve Fund Target	1,168,089	1,228,429	1,179,864	1,276,086	1,486,179	1,972,574				3,350,395	3,531,517	3,722,909	3,925,170	4,138,933	4,364,869	4,603,689	4,856,147	5,123,039	5,405,210	5,703,555
Above/(Below) Target	4,740,577	5,397,005	6,003,379	6,309,421	6,515,071	6,064,108				688,657	247,113	(110,291)	(383,090)	(571,472)	1,482,013	3,584,164	5,728,137	7,906,318	10,109,860	7,712,955

Assumptions	
Fleet Percentage on Streets Ratio	23.12%
Discount Rate	4.00%
Interest Earnings	4.50%
Ratio: Available to Invest	50%
Depreciation	#REF!
Useful Life	40
Remaing Value	10%
Remaing Value	#REF!
Construction Inflation 2025	4.00%

Bonds		
Series	2024	2030
Rate	3.00%	3.00%
Nper	40	40
COI	2%	2%
Proceeds	-	-
Bond Size	-	-
Payment	\$0	\$0

ESALs Analysis	
Total ESALs	
Residential	
Retail/Com	
Industrial	
Office	
Commercial	

<https://edzarenski.com/>

APPENDIX D – HALES MEMO

MEMORANDUM

Date: March 12, 2025

To: South Salt Lake City

From: Hales Engineering

Subject: South Salt Lake Road Utility Truck Study

UT24-2902

Background

This study addresses the impact new developments will have on roads in South Salt Lake City. Hales Engineering analyzed Equivalent Single Axle Load (ESAL) values associated with a variety of land uses common to new developments. ESAL values were calculated using methods established by AASHTO and published in *Essentials of Transportation Engineering*, 2nd edition, 2016 (Chapter 9.2.1). Figure 1 shows the equations used to calculate the ESAL value for single and tandem axle configurations.

ESAL Value Calculation

Figure 1: ESAL Value Equations

Based on the travel demand model, there are five classes of truck recorded in the traffic analysis zones (TAZ) in South Salt Lake. Passenger vehicles were included as a comparison. An approximation of individual ESAL values is shown in Table 1.

Table 1: Truck Type ESAL Values

Vehicle Type	ESAL / Vehicle
Passenger Vehicle	0.0004
Short-Range Light Truck	0.032
Short-Range Medium Truck	0.676
Short-Range Heavy Truck	1.860
Long-Range Medium Truck	2.340
Long-Range Heavy Truck	2.884

Travel Demand Model ESAL

Traffic volumes were acquired using the Wasatch Front Regional Council (WFRC) / Mountainland Association of Governments (MAG) travel demand model for the year 2050. Data from each TAZ in South Salt Lake was used to calculate the proportion of each vehicle type in the collected traffic volumes. Volumes were then analyzed with generic ESAL values calculated for each truck type to determine the total impact to roadways for each land use. Figure 2 shows a vicinity map of the TAZ in South Salt Lake.

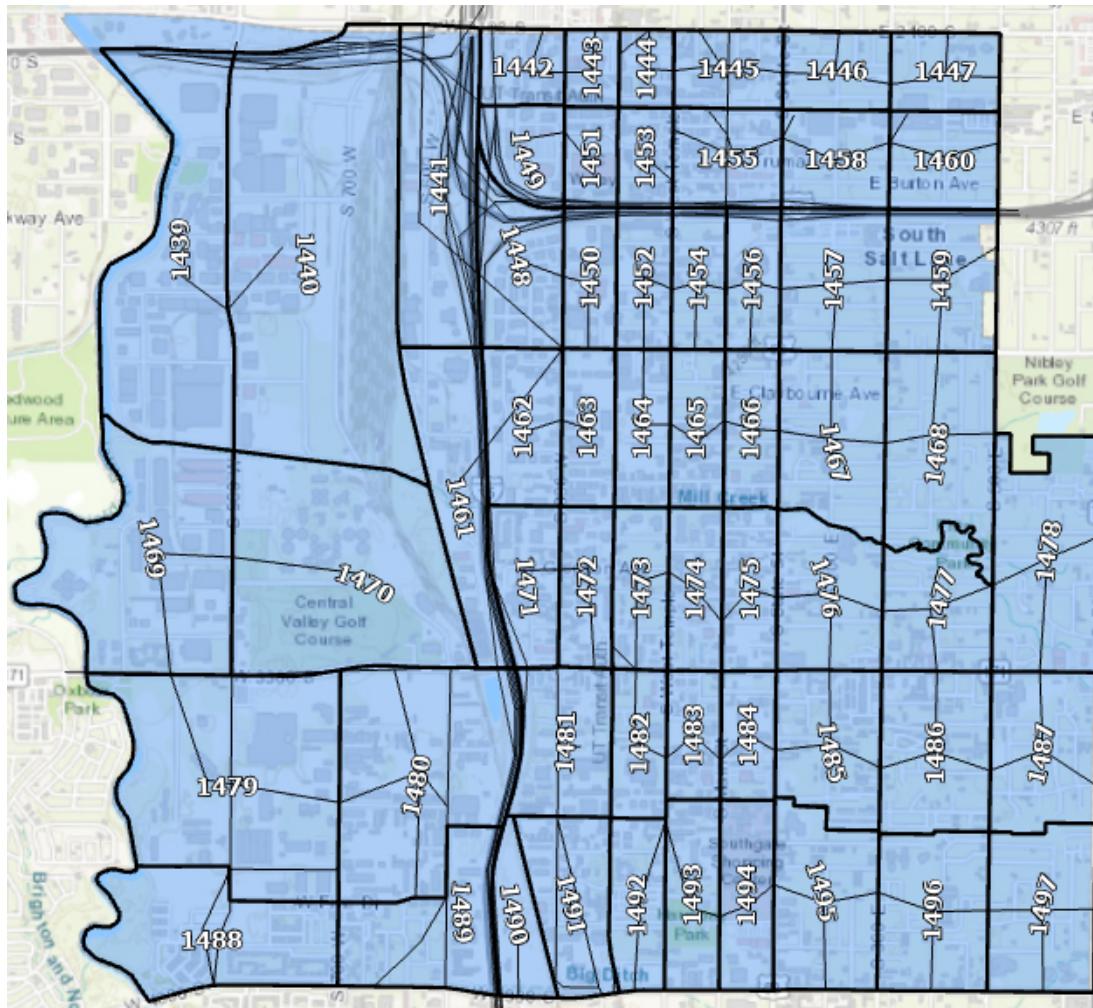


Figure 2: TAZ Map in South Salt Lake, Utah

Based on the travel demand model, trucks accounted for 100,135 of the total 305,744 daily trips in the analysis area, and approximately 51,630 daily ESALs. It was determined that about 89.41% of the daily ESAL total is attributed to short range medium- and heavy-duty trucks. The total for the two truck types is about 46,160 ESAL/Day. Those trucks accounted for 46,070 of the total daily trips. Based on all of the truck types, a weighted average of 0.5156 ESAL per truck trip per day was calculated.

Land Use ESAL Calculations

Land use truck rates were calculated using trip generation rates published in the Institute of Transportation Engineers (ITE), *Trip Generation*, 11th Edition, 2021. Specific land use codes were combined into Residential, Retail / Commercial, Industrial, and Office categories and are shown in Table 2. Pass-by reductions were not applied to these rates since pass-by trips are typically made by passenger vehicles, which ESAL values are negligible compared to other types of vehicles.

Table 2: Daily Trips and ESAL by Land Use

Land Use	Daily			
	Unit	Trip Rate	Truck Trip Rate	Generated ESALs
Residential	DU	9.43	0.02	0.0141
Retail / Commercial	KSF	67.52	0.16	0.1094
Industrial	KSF	4.87	0.25	0.1307
Office	KSF	10.84	0.10	0.0559

Daily passenger vehicle and truck traffic can be calculated for developments using ITE land uses or those listed above. Using the daily passenger vehicle and truck volumes and average ESAL values of 0.0004 per passenger vehicle trip and 0.5156 per truck trip, a utility fee can be calculated for existing land uses.

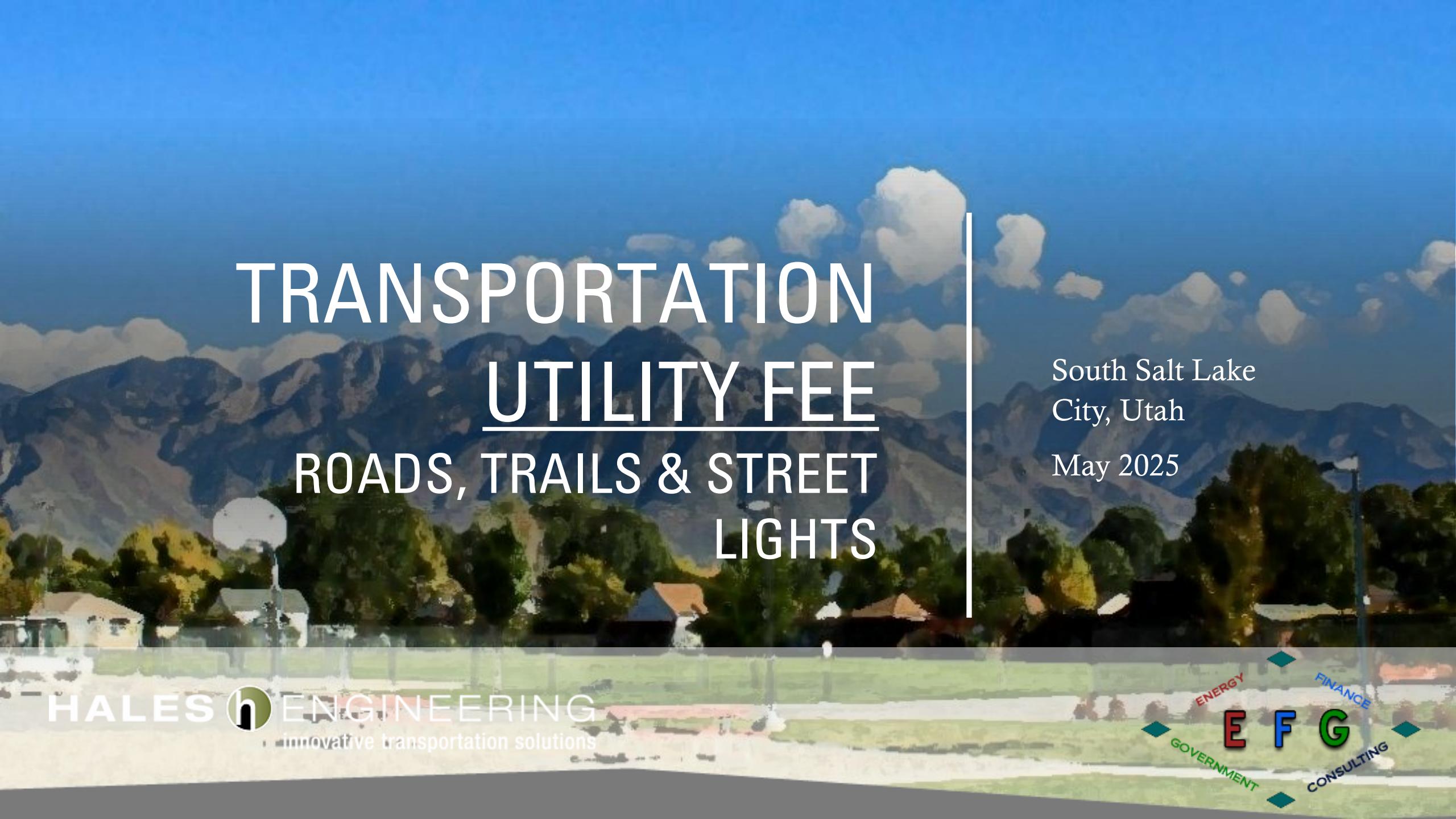
Conclusions

The findings of this study are as follows:

- In South Salt Lake, the majority of ESALs come from short range medium- and heavy-duty trucks
- Hales Engineering calculated that the weighted average ESAL value for trucks in South Salt Lake is approximately 0.5156 ESAL per vehicle trip per day.

If you have any questions regarding this memorandum, please contact us at 801.766.4343.

APPENDIX E – CITY COUNCIL PRESENTATION



TRANSPORTATION UTILITY FEE ROADS, TRAILS & STREET LIGHTS

South Salt Lake
City, Utah

May 2025

UTAH SUPREME COURT RULING

- Transportation Utility Fee - Legal
- City Authority – 10-8-84
- Establish Clear Link:
 - Demand for Service and
 - Fee for Service
- Create Transportation Utility Fee Fund
 - For Repair, Replacement, Maint.

IN THE

SUPREME COURT OF THE STATE OF UTAH

UTAH SAGE, INC., DBA HOBBY TRACTORS & EQUIPMENT, LARKIN TIRES, INC., GARY LARSON, AND FRATERNAL ORDER OF EAGLES #3372,

Appellees and Cross-appellants,

v.

PLEASANT GROVE CITY,
Appellant and Cross-appellee.

No. 20200290

Heard March 14, 2022

Filed February 23, 2023

On Direct Appeal

Fourth District, Spanish Fork
The Honorable Jared Eldridge
No. 190300164

Attorneys:

Gerald M. Salcido, Sandy, for appellees and cross-appellants
Robert C. Keller, Nathanael J. Mitchell, Salt Lake City, for
appellant and cross-appellee

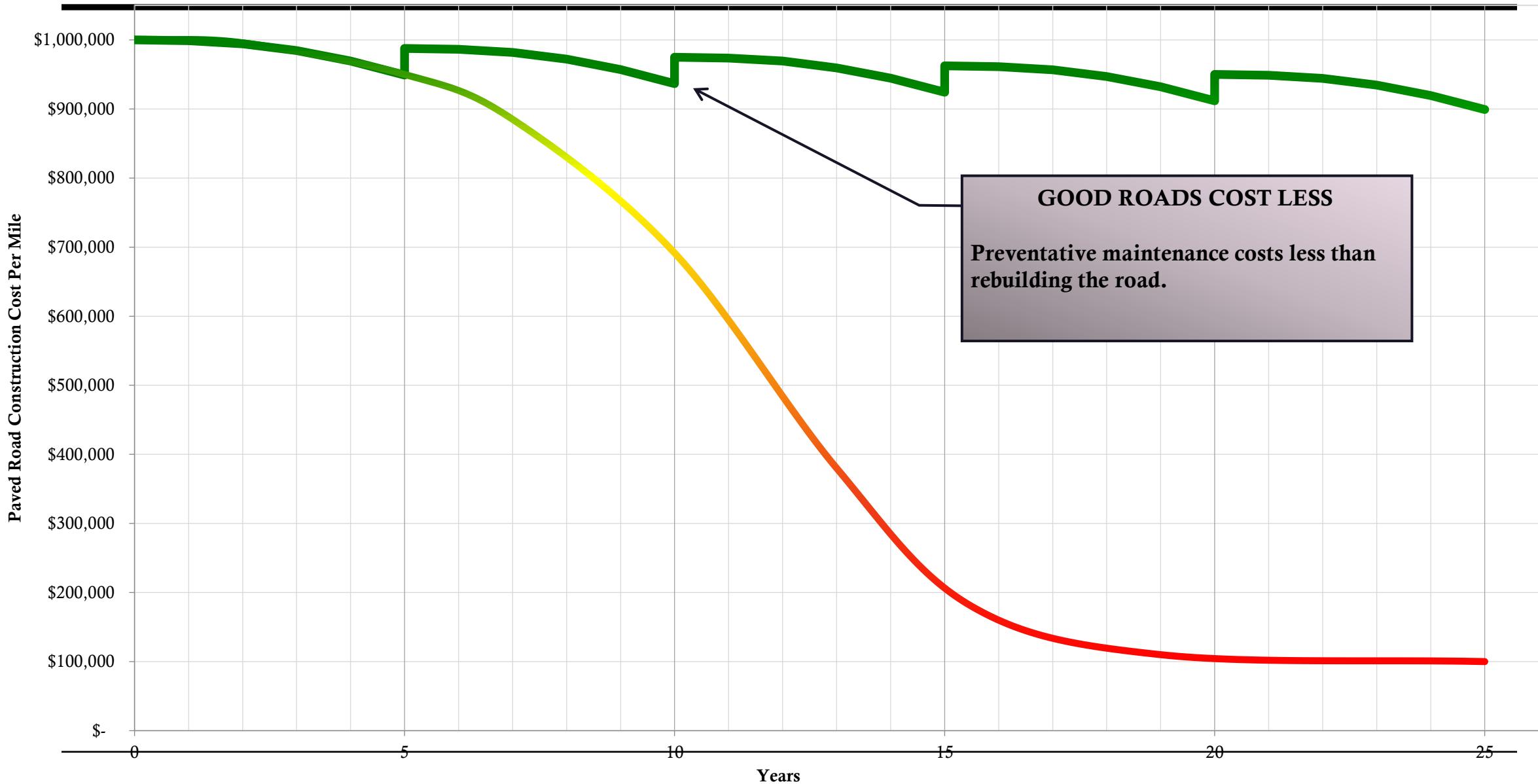
JUSTICE PETERSEN authored the opinion of the Court, in which
CHIEF JUSTICE DURRANT, ASSOCIATE CHIEF JUSTICE PEARCE, JUSTICE
HAGEN, and JUSTICE POHLMAN joined.

Due to their retirements, JUSTICE HIMONAS and JUSTICE LEE did not
participate herein; JUSTICE DIANA HAGEN and JUSTICE JILL M.
POHLMAN* sat.

JUSTICE PETERSEN, opinion of the Court:

* JUSTICE HAGEN and JUSTICE POHLMAN became members of the Court on May 18, 2022 and August 17, 2022, respectively. Both sat as visiting judges prior to their confirmations.

Remaining Road Value Over Time



METHODOLOGY

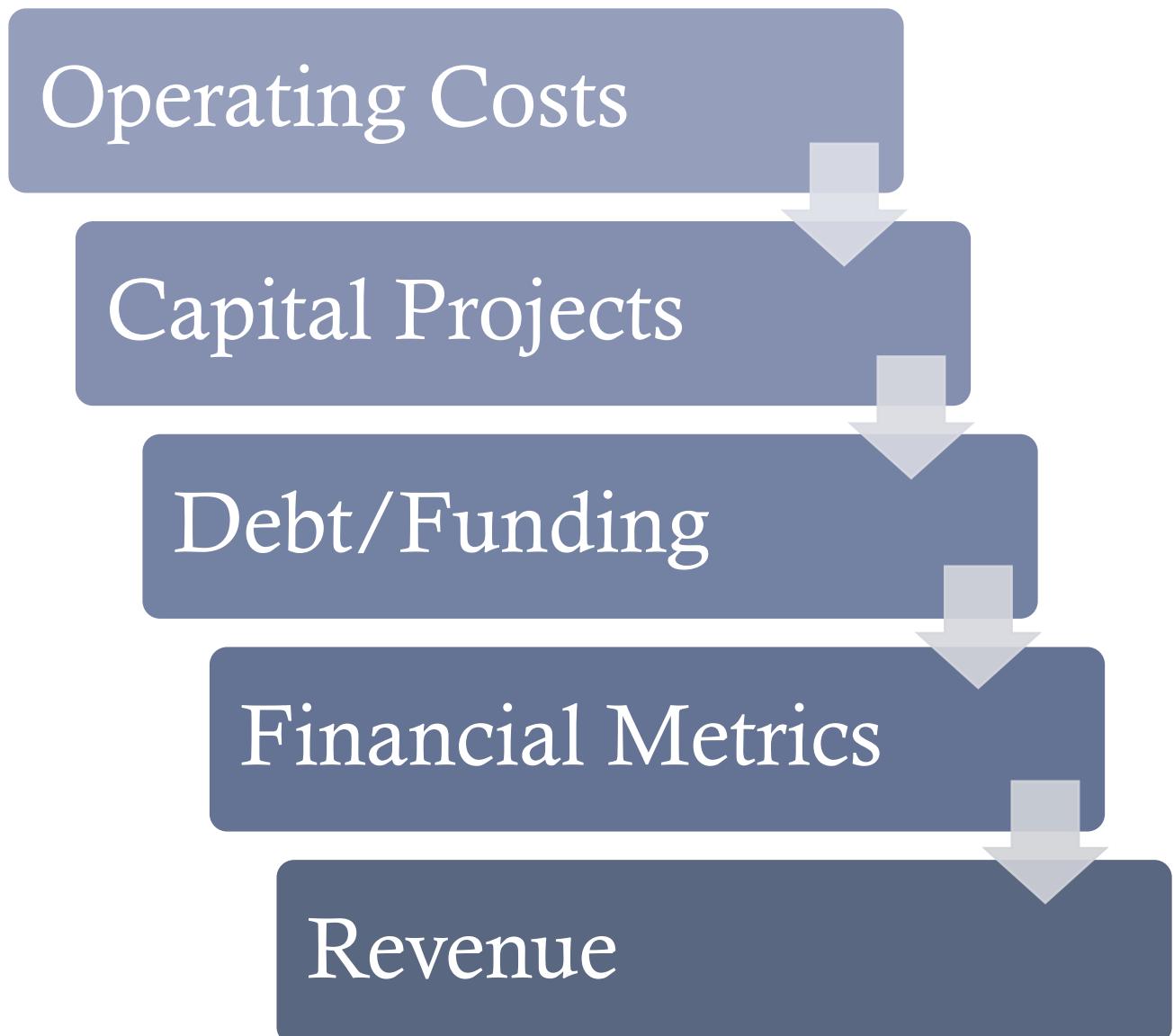
Operating Costs

Capital Projects

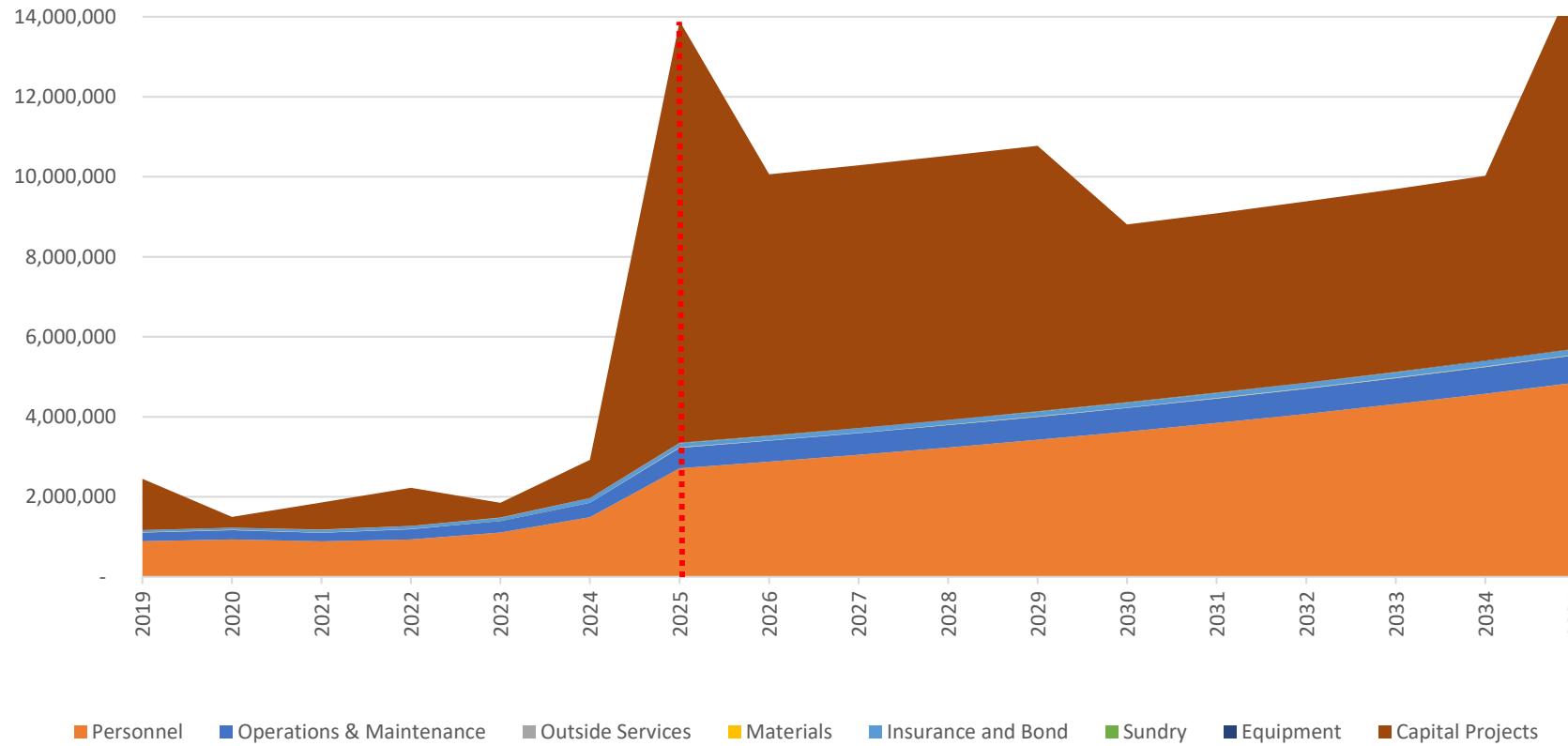
Debt/Funding

Financial Metrics

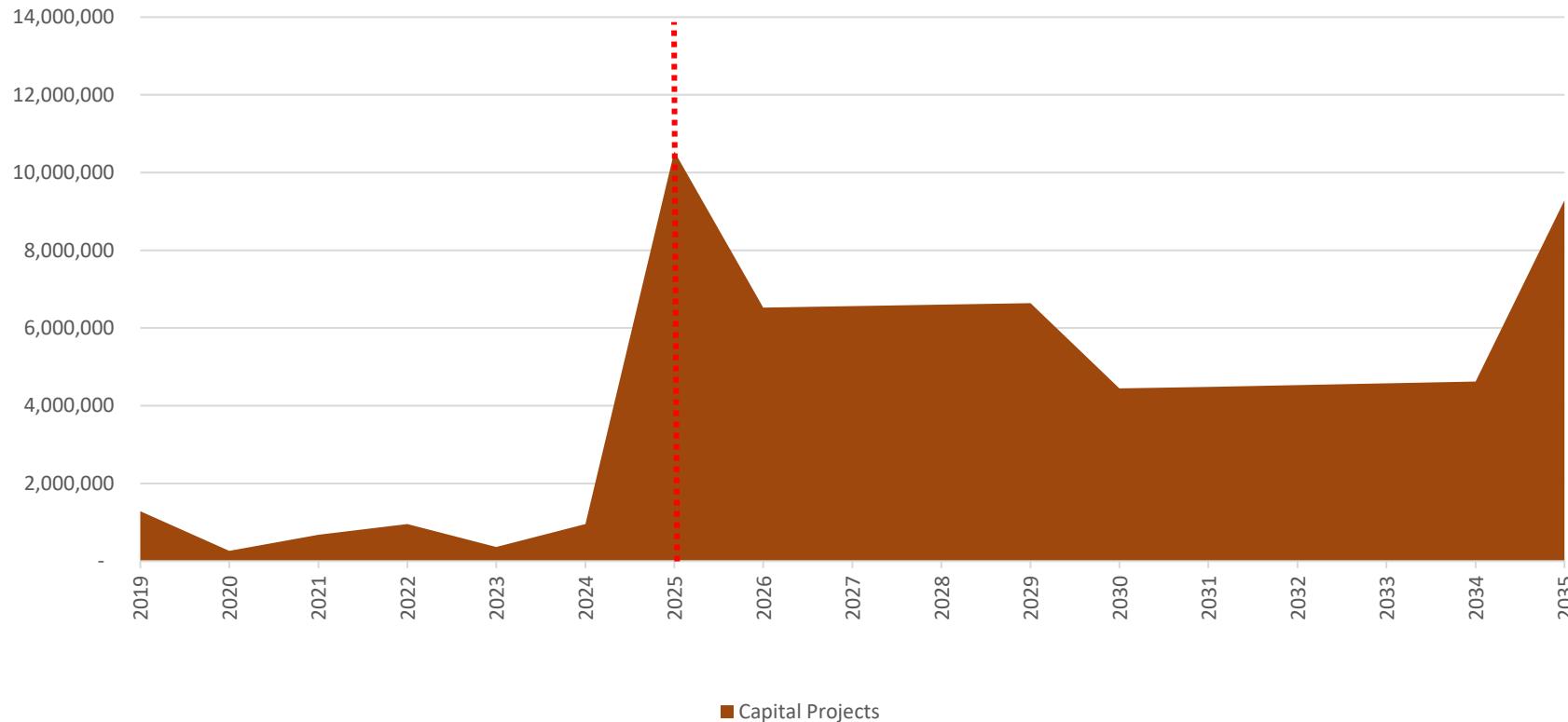
Revenue



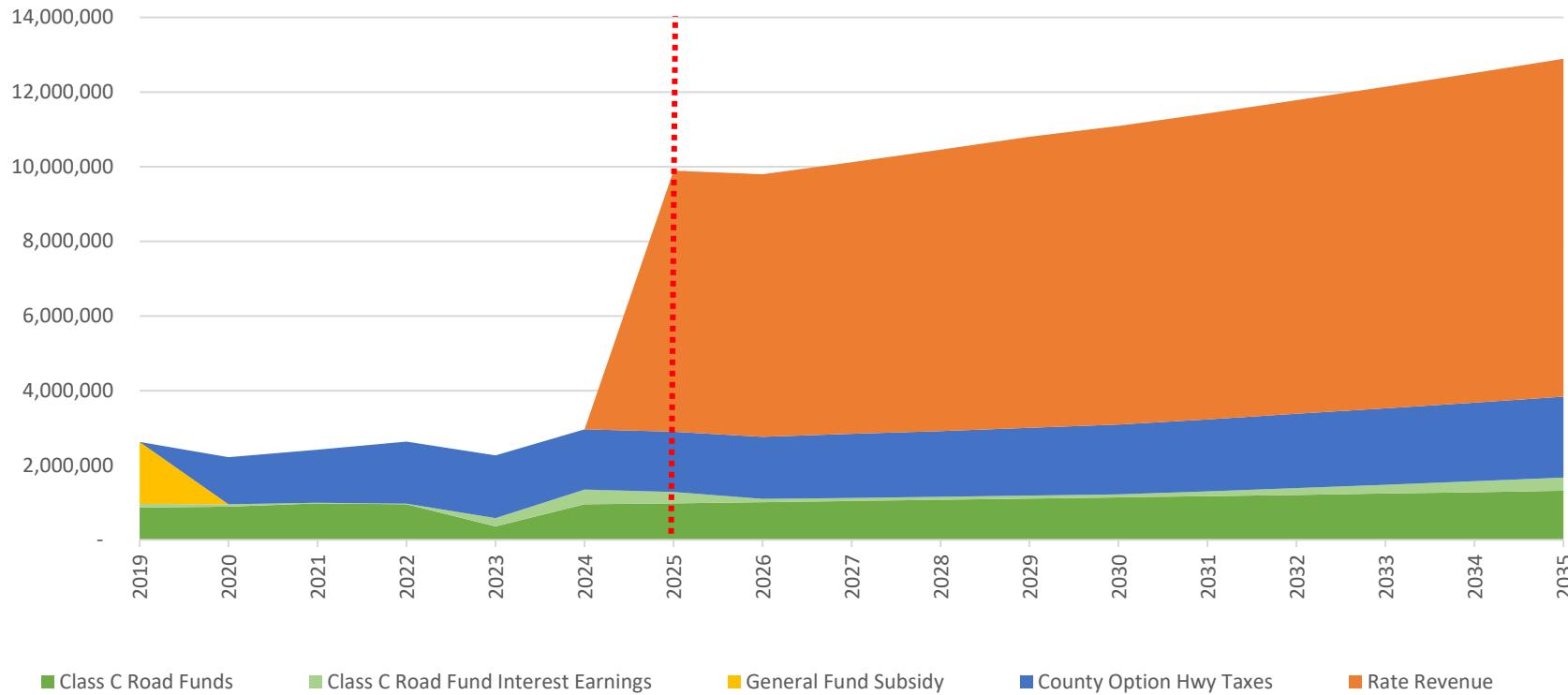
EXPENDITURES



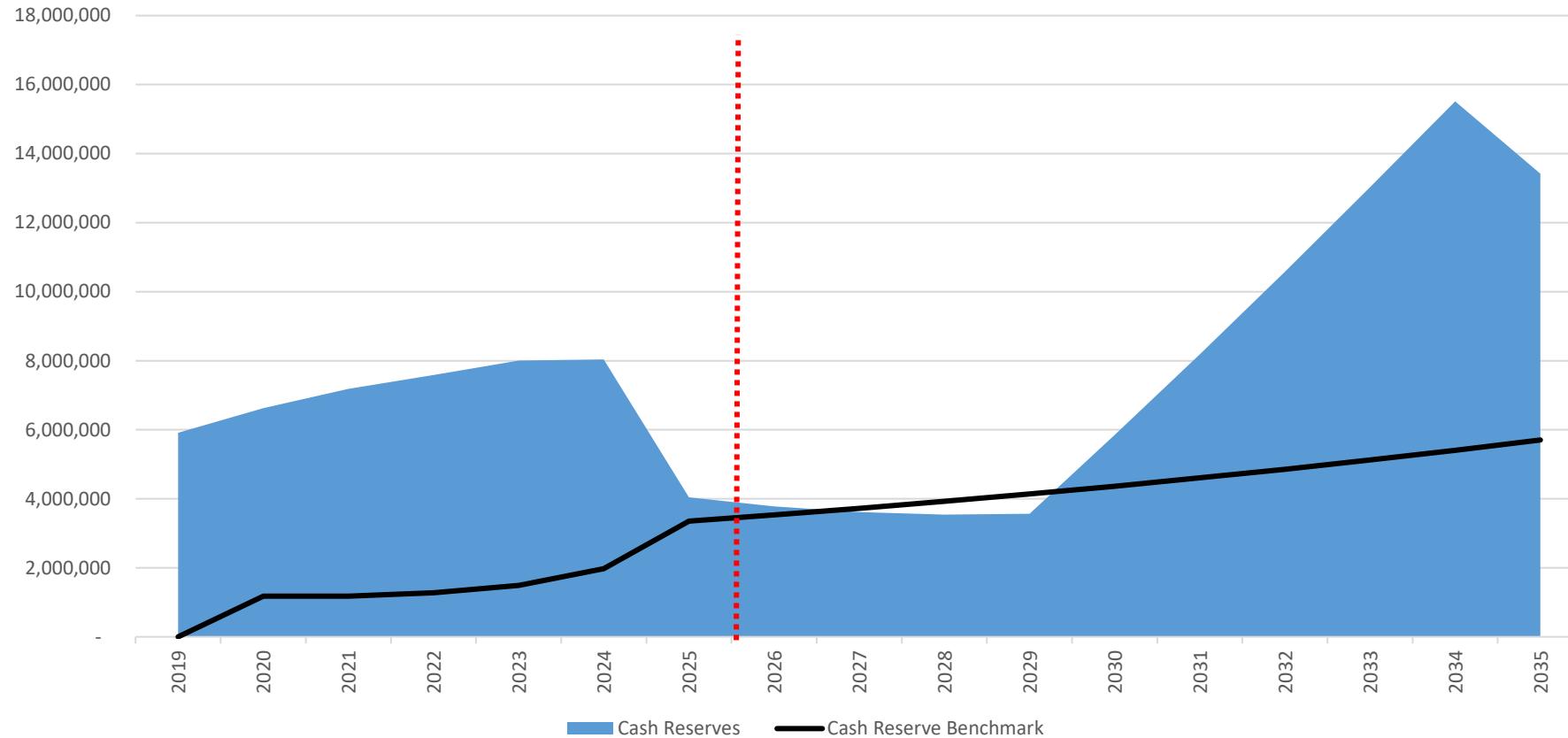
CAPITAL PROJECTS - \$68.8M



REVENUES



CASH RESERVES

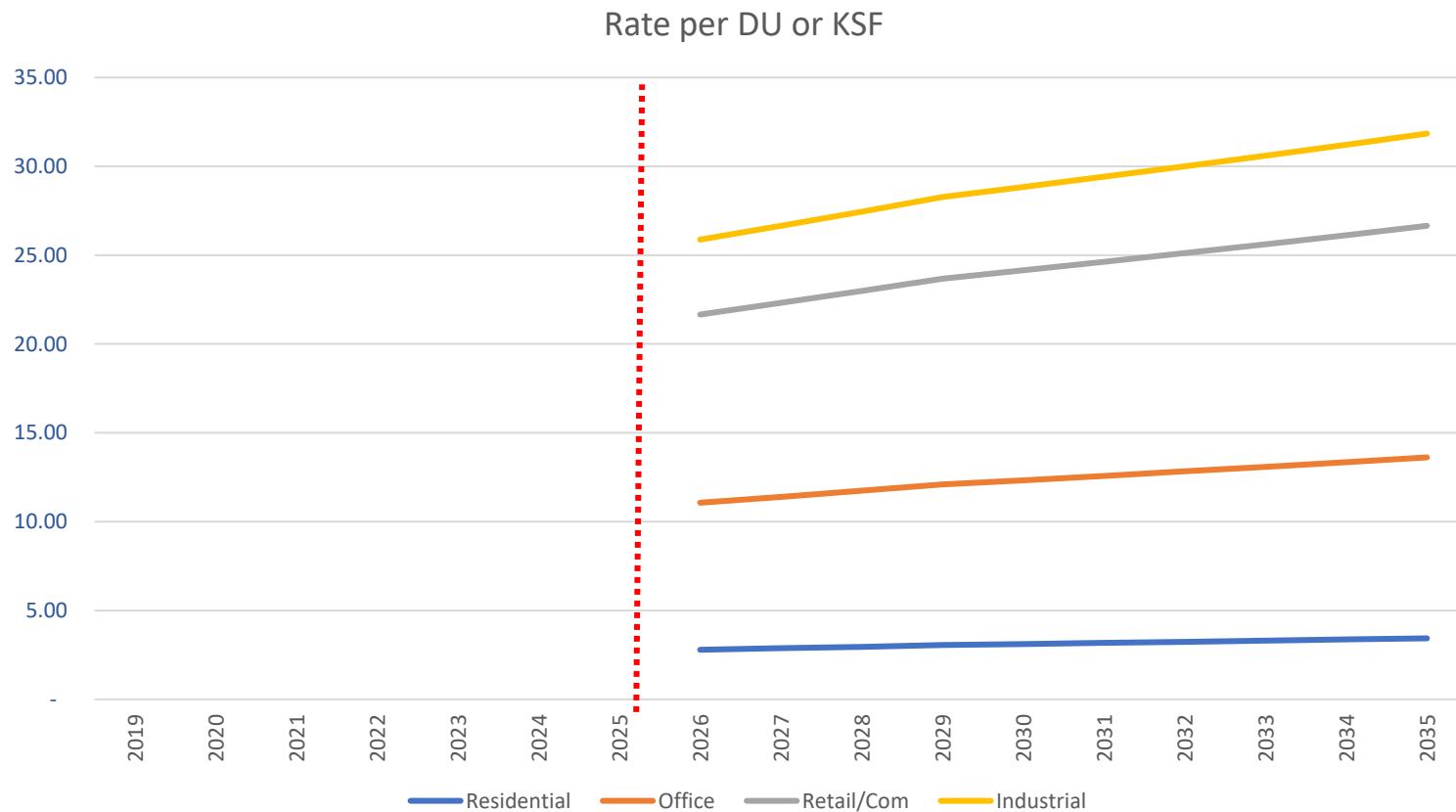


RATE STRUCTURE – ADJUSTED FOR AXEL WEIGHT

User Type	Total DU or KSF in City	ERU / Type	Total ERUs	Monthly Rate / DU or KSF
Residential	10,700	1.00	10,700	\$ 2.79
Office	2,572	3.96	10,198	11.07
Retail/Com	6,317	7.76	49,012	21.66
Industrial	15,002	9.27	139,066	25.87
Total			208,976	

2026 Revenue Requirement	\$ 7,000,000
Monthly Rate per ERU	\$ 2.79

RATE



RATE STRUCTURE – SAMPLE SIZES

User Type	Monthly Rate / DU or KSF	DU or KSF	Monthly Fee
Residential	\$ 2.79	1	\$ 2.79
Office	11.07	13	143.87
Retail/Com	21.66	10	216.58
Industrial	25.87	20	517.50
Total			

COMPARABLES

Category 1 - Detailed Schedules		Residential	Commercial -	Commercial -
	Residential	(Abatement)	Tier 1 (0-4 Trips)	Tier 2 (4+ Trips)
Pleasant Grove	\$ 8.45	\$ 6.76	\$ 41.27	\$ 236.05

	Residential	Multifamily	Commercial A - <100 trip-ends	100-199 trip ends	200-599 trip ends	Commercial C - 600+ trip ends	Commercial D - 600+ trip ends	Public Use A - <300 trip	Public Use B - >=300 trip
Provo	\$ 3.68	\$ 2.21	\$ 9.98	\$ 26.36	\$ 79.28	\$ 236.78	\$ 21.53	\$ 96.08	

	Per KSF	Per KSF	Per KSF	Per KSF		
	Residential -	Commercial 1	Commercial 2	Commercial 3		
	Residential	Multifamily	<= 10 ADT	10-25 ADT	>= 26ADT	Schools/ Churches
Kaysville	\$ 7.85	\$ 5.45	\$ 3.00	\$ 6.00	\$ 9.00	\$ 4.50

	Residential	Comm 1	Comm 2	Comm 3	Comm 4	Comm 5	Comm 6	Public Use
South Ogden	\$ 5.52	\$ 6.31	\$ 17.50	\$ 30.48	\$ 59.00	\$ 106.35	\$ 319.13	\$ 68.42
Sample Uses	Office type	Medical, Auto	Restaurants	Day Care	Fast food, C Store	Big Box		