



**BOARD OF COUNTY COMMISSIONERS  
LYON COUNTY NEVADA**

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COUNTY MANAGER REPORT

DATE: 08/01/2017

PREPARED FOR: Board of County Commissioners  
Citizen Advisory Boards  
Planning Commission

PREPARED BY: Jeffery A. Page, County Manager

SUBJECT: Road Maintenance

Lyon County owns 847.11 miles of road. 541.58 miles are on the maintained list and 305.53 are on the non-maintained list. Non-maintained roads are roads that do not meet the County standards for acceptance of maintenance. Lyon County adheres to the Orange Book Standard Specifications for Public Works Construction which can be found at:

<https://www.rtcwashoe.com/wp-content/uploads/2017/04/Orange-Book-Version-No.-9-2016-12-21.pdf>

The chart below provides the mileage by community and road type that is maintained and non-maintained in Lyon County. For additional detail by community go to: <http://lyon-county.org/DocumentCenter/Home/View/180>

AREA	MAINTAINED MILEAGE					TOTAL MILES	NONMAINTAINED MILEAGE				TOTAL MILES
	AC	CS	GR	ACG	NG		AC	CS	GR	NG	
DAYTON	33.22	8.10	0.99	5.53	0.00	47.84	4.02	0.00	4.22	3.75	11.99
MOUND HOUSE	11.78	8.58	0.06	0.00	0.00	20.42	0.49	0.52	0.96	1.10	3.07
MASON TOWNSHIP	0.00	5.21	0.00	0.00	0.00	5.21	0.00	0.00	0.00	0.11	0.11
MARKTWIN	24.36	20.39	0.04	0.00	0.00	44.79	4.53	0.00	3.04	2.29	9.86
MASON VALLEY	23.67	40.63	72.07	0.00	40.36	176.73	2.52	1.43	16.84	24.91	45.70
SILVER CITY	0.14	0.71	0.59	0.00	0.72	2.16	0.00	0.00	1.83	4.37	6.20
SILVER SPRINGS	8.66	41.70	40.68	0.00	14.32	105.36	0.00	0.00	7.51	158.43	165.94
STAGECOACH	5.21	18.53	1.75	1.00	1.24	27.73	1.66	0.00	11.79	20.62	34.07
SMITH VALLEY	30.24	11.39	21.49	0.00	48.22	111.34	0.29	0.00	15.85	12.45	28.59
<b>TOTAL</b>	<b>137.28</b>	<b>155.24</b>	<b>137.67</b>	<b>6.53</b>	<b>104.86</b>	<b>541.58</b>	<b>13.51</b>	<b>1.95</b>	<b>62.04</b>	<b>228.03</b>	<b>305.53</b>
Asphalt Road											
Chip Seal Rd.											
Gravel Road											
Asphalt Grindings Rd.											
Native Ground											
Total Mileage	<b>847.11</b>										

## REVENUE & EXPENSES

Lyon County does not use any property tax dollars for funding of road maintenance. The Road Division has three funding sources.

- Road Fund
- Regional Transportation Fund – This is split between Lyon County, City of Fernley and City of Yerington based upon percentage of assessed valuation
- Road Improvement Fund

The chart below provides the revenue and revenue sources for each fund

Revenues	SOURCE	AMOUNT
<b>Road Fund</b>	Utility License Fees	\$ 200,000.00
	Excavation Permits	\$ 15,000.00
	Secure Rural Schools	\$ 140,000.00
	Gas Tax	\$ 1,194,787.00
	Investment Income	\$ 3,000.00
	Beginning Balance	\$ 1,051,759.00
<b>Total Road Fund</b>		<b>\$ 2,604,546.00</b>
<b>Regional Transportation Fund*</b>	Nine Cent Gas Tax	\$ 2,570,302.00
	Road Construction Tax	\$ 92,000.00
	Investment Income	\$ 23,400.00
	Beginning Balance	\$ 6,839,911.00
<b>Total RTF</b>		<b>\$ 9,525,613.00</b>
<b>Road Improvement Fund</b>	Road Construction Tax	\$ 139,000.00
	Beginning Balance	\$ 1,196,805.00
<b>Total Road Improvement Fund</b>		<b>\$ 1,335,805.00</b>

The second chart below provides the expenses for each fund

EXPENSES	Wages & Benefits	Services & Supplies	Capital Outlay	Contingency	Total
<b>Road Fund (Includes Heavy Equipment Budget)</b>	\$ 1,200,135.00	\$ 937,760.00	\$ 330,000.00	\$ 65,811.00	\$ 2,533,706.00
<b>Regional Transportation</b>	\$ 700.00	\$ 9,524,913.00	\$ -	\$ -	\$ 9,525,613.00
<b>Road Improvement Fund</b>	\$ -	\$ -	\$ 1,335,805.00	\$ -	\$ 1,335,805.00
<b>Total Expenditures</b>	<b>\$ 1,200,835.00</b>	<b>\$ 10,462,673.00</b>	<b>\$ 1,665,805.00</b>	<b>\$ 65,811.00</b>	<b>\$ 13,395,124.00</b>

**MAINTAINENCE EXPENSES**

Lyon County currently pays the following costs:

Slurry Seal - \$22,000.00/mile. This is done on asphalt roads that have curb and gutter. This normally paid for from the Regional Transportation Fund and these roads are in the 5-7 year cycle as are chip sealed roads.

Chip Seal - \$50,000.00/mile for roads that are asphalt or already chip sealed. Gravel roads converted to Chip Seal are \$250,000.00-\$300,000.00/mile depending on the amount of base material and shoulder work needed. Existing Chip Sealed roads are on a 5-7 year rotation for application. This is normally funded out of the Regional Transportation Fund.

Gravel/Native Soil Roads - \$500.00/Mile to maintain (1 Grader and 2 water trucks). It costs \$121,215.00/Quarter to grade all maintained Gravel/Native Soil Roads or \$484,860.00/Year

The chart below provides the total costs for maintaining the specific types of roads

Community	Chip Seal	COST	Gravel	COST	Asphalt	COST	Native	COST
DAYTON	8.10	405,000	0.99	4,050	33.22	1,183,000	0	-
MOUND HOUSE	8.58	429,000	0.06	30	11.78	589,000	0	-
MASON TOWNSHIP	5.21	260,500	0	-	0	-	0	-
MARKTWAIN	20.39	1,019,500	0.04	20	24.36	1,218,000	0	-
MASON VALLEY	40.63	2,031,500	72.07	36,035	23.67	1,183,500	40.36	20,180
SILVER CITY	0.71	35,500	0.59	295	0.14	7,000	0.72	360
SILVER SPRINGS	41.70	2,085,000	40.68	20,340	8.66	433,000	14.32	7,160
STAGECOACH	18.53	926,500	1.75	875	5.21	260,500	1.24	620
SMITH VALLEY	11.39	569,500	21.49	10,745	30.24	1,512,000	48.22	15,120
<b>Total</b>	<b>155.24</b>	<b>7,762,000</b>	<b>137.67</b>	<b>72,390</b>	<b>137.28</b>	<b>6,386,000</b>	<b>104.86</b>	<b>43,440</b>

This chart breaks down the costs by area for chip and slurry seal. Lyon County breaks the projects by the areas below. Lyon County does one area/year. Keep in mind that the total budgeted for regional transportation is split by percentage of assessed valuation with Lyon County, City of Fernley and City of Yerington.

Dayton & Marktwain	\$ 3,825,500.00
Moundhouse & Silver City	\$ 1,060,500.00
Silver Springs & Stagecoach	\$ 3,705,000.00
Mason Valley & Mason	\$ 3,475,500.00
Smith Valley	\$ 2,081,500.00
<b>Total</b>	<b>\$ 14,148,000.00</b>

## **OTHER FUNCTIONS OF THE ROAD DIVISION**

In addition to road maintenance the Road Division is tasked with the following functions in support of road maintenance.

- Sign Maintenance & Installation – To replace a damaged or destroyed Stop Sign is \$100.00/sign
- Traffic Counts
- Road Side Drainage Maintenance
- Weed Abatement on road easements and shoulders
- Heavy Equipment Maintenance
- Snow removal
- Flood/Flash Flood Response

As noted above the two operational budgets are the Road Fund and Regional Transportation Fund. The Road Improvement Fund is used to purchase equipment and materials.

## **STAFFING**

In 2007 Lyon County operated four Road Yards (Yerington, Smith Valley, Silver Springs and Dayton). 2007 The Road Division had twenty-three staff:

1 Director  
1 Administrative Assistant  
2 Supervisors  
1 Heavy Equipment Mechanic (All work was done in Yerington)  
2 Sign Technicians  
16 Road Maintainers

Today we operate two Road Yards (Yerington and Dayton). Current Staffing is sixteen staff:

1 Director  
1 Sign Technician

### **South County (Mason and Smith Valley's**

1 Supervisor  
6 Road Maintainers  
1 Heavy Equipment Mechanic who also supervises Vehicle Maintenance in the General Fund

### **Central Lyon County**

1 Supervisor

4 Road Maintainers

1 Heavy Equipment Mechanic who maintains Road Division and Utility Division heavy equipment

The South County team supports grading operations in Silver Springs and Stagecoach

### **ISSUES AND PROBLEMS**

- Communities wanting more service and more miles added to the maintained list.
- Decreased revenues as vehicles are made to attain better gas mileage
- No fuel tax on diesel fuel – Tractor trailer rigs and diesel automobiles do not pay a local fuel tax by state law. A bill to add a five cent tax on diesel died this last session. That five cents would have generated an additional two million dollars for Lyon County.
- Weather events have pulled crews from maintenance thus increasing the failure rate.

March of 2016 Lyon County contracted with Lumos & Associates to analyze and evaluate our road system to determine the condition of our roads. The chart below depicts the cost per community and road type to refurbish or replace failing or failed roads

<b>COMMUNITY</b>	<b>Asphalt</b>	<b>Chip Seal</b>	<b>Gravel</b>	<b>Native</b>	<b>Total</b>
Smith Valley	\$ 11,334,097	\$ 216,076	\$ 6,014	\$ -	\$ 11,556,187
Mark Twain	\$ 5,925,591	\$ 149,707	\$ -	\$ -	\$ 6,075,299
Silver Springs	\$ 3,714,092	\$ 786,128	\$ 8,733	\$ -	\$ 4,508,953
Silver City	\$ 861	\$ 1,956	\$ -	\$ -	\$ 2,817
Moundhouse	\$ 1,621,326	\$ 3,496	\$ -	\$ -	\$ 1,624,822
Mason Township	\$ -	\$ 20,698	\$ -	\$ -	\$ 20,698
Dayton	\$ 1,850,995	\$ 55,006	\$ 342,366	\$ 5,343	\$ 2,253,710
Stagecoach	\$ 1,692,574	\$ 491,770	\$ 6,328	\$ -	\$ 2,190,673
Mason Valley	\$ 1,980,374	\$ 494,271	\$ -	\$ -	\$ 2,474,644
<b>Total</b>	<b>\$ 28,119,910</b>	<b>\$ 2,219,108</b>	<b>\$ 363,442</b>	<b>\$ 5,343</b>	<b>\$ 30,707,802</b>

### **POTENTIAL SOLUTIONS**

- Develop a Road General Improvement District with a Tax Rate to address roads within Central Lyon County. This region of Lyon County has the ability to apply a tax rate. South Lyon County cannot due to being at the \$3.64 Cap
- Take select asphalt and chip seal roads back to gravel thus reducing the expense of maintenance and possibly allowing Lyon County to add additional miles to the maintained list.
- Author a bill draft to tax diesel the same as gasoline thus increasing funding.

## ROAD ACCEPTANCE

Lyon County's policy for Road Acceptance can be found at: <http://lyon-county.org/286/Road-Acceptance>

The purpose of this policy is to establish the procedure and criteria for the Lyon County Board of Commissioners to accept non-maintained roads into the Lyon County Road Maintenance System.

The procedure and criteria for acceptance into the Lyon County Road Maintenance System is as follows:

1. Type of right-of-way/road – The three primary methods roadways are established are:
  - a. **Dedicated Right-of-way** – The roadway is owned by or dedicated to the County for purposes of a road
  - b. **Prescriptive Right-of-way** – The land may or may not be owned by the County, but the public has used the road on a continuous basis and a prescriptive right-of-way is recognized by court order or another basis.
  - c. **Access easement** – An easement granted to a private individual for access to their property across another's property and for an individual's use and benefit.

Lyon County will only consider roads that are constructed in a dedicated right-of-way or prescriptive right-of-way for acceptance for maintenance. The type of roadway will be determined by the Lyon County Road Division Manager. The burden for establishing the type of roadway and providing supporting documentation is on the applicant and the Road Division is not required to research documents, survey or perform other activities to determine the type of roadway.

Roads found to be within an access easement may not be considered for maintenance.

2. The Roadway must have met Lyon County standards when it was constructed. If not, the road must be brought up to those standards before it can be considered for acceptance.

If the developer or property owner agreed not to offer the roadway for acceptance for maintenance as a condition of a waiver, the roadway cannot be considered for acceptance for maintenance until the roadway is brought up to the County standards required at the time the roadway was constructed.

The fact that the road was constructed or brought up to standards at the time it

was built does not guarantee acceptance into the maintenance system, but is only one factor to be considered by the Road Division and the Board of County Commissioners. **Even if an applicant or property owners improve the roadway, the Road Division and Board of County Commissioners are not required to accept the roadway into the Lyon County Road Maintenance System.**

3. If the Road Division's Manager finds that the application meets the first two criteria, the Road Division Manager shall make a recommendation to the Board of County Commissioners. The road and the Road Division recommendation shall be included on the list of roads presented to the Board of County Commissioners. This list will be presented to the Commission twice a year, at the second meetings of March and September.
4. The Road Division Manager's decision of whether the roadway meets the first two criteria may be appealed to the County Engineer. If the Road Division Manager, or County Engineer if the decision is appealed, determine that the roadway does not meet the first two criteria, the roadway will not be included on the list for consideration by the County Commissioners.
5. The Road Division Manager's recommendation to the Board of County Commissioners should consider several factors including, but not limited to, traffic volumes, the number of improved parcels on the road, zoning along the road, zoning for current land use and future development, the length of the road, the cost/benefit analysis of the financial impact on the County's road budget, and the road classification

Road classifications will be used to determine which roads will have priority in the selection for maintenance by the County. The type and use of road will determine the type and amount of the maintenance that will be provided.

Road classifications are:

- a. **Arterial** – medium-speed, medium-capacity roadways that provide intra-community travel access to the county-wide road system.
  - b. **Collector** – relatively low speed, low volume roadways that provide circulation within and between neighborhoods. Collectors usually serve short trips and are intended for collecting trips from local roadways and distributing to the arterial network.
  - c. **Local** – relatively low-speed, low volume roadways that allow local neighborhood trips to gain access to collector roadways.
6. The Board of County Commissioners will determine whether the roadway should be accepted into the Lyon County Road Maintenance System. The Board of County Commissioners may consider information presented at the meeting, the Road Division recommendation, any combination of the factors considered in the Road Division recommendation, and any other available information. The

Board of County Commissioners has the discretion to either accept or deny the road being placed in the Lyon County Road Maintenance System. The decision of the Board of County Commissioner is final and may not be appealed.

7. The Board of County Commissioners and the Road Division Manager have the sole authority to determine the level of maintenance for any road accepted into the Lyon County Road Maintenance System.
8. Any person, entity or Lyon County resident may request that a road be considered for acceptance into the Lyon County Road Maintenance System. The application must be complete with any necessary supporting documentation and shall be submitted to the Road Division. The application must be received by December 31st and June 30th, respectively, to be considered for the March and September Board of County Commissioner meetings. The responsibility for completing the application and providing supporting documentation is on the applicant.
9. If an application is rejected by the Board of County Commissioners, it will not be reconsidered by the Road Division for a period of one year from the Board of County Commissioner decision, unless the applicant can show changed circumstances justifying reconsideration.
10. The Road Division may request at the same Board of County Commission meetings that certain roads be removed from the Lyon County Road Maintenance System. The Road Division shall provide the reasons why the roadway should be removed from the Road Maintenance System. The Board of County Commissioners has the discretion to remove the roadway from the Road Maintenance System.

## **CONCLUSION**

The primary purpose of this report is to inform you of the status of roads, funding for roads and possible solutions to improve roads. This report should be able to assist you in answering questions from the public. Please contact me if you have any questions or comments.