

Table 1:

**FORWARD MISSISSIPPI PHASE 2 PROJECTED VEHICLE MILES, HOURS AND DELAY COMPARED TO OUTPUT FOR THE EXISTING NETWORK: 2019-2038**

YEAR	EXISTING NETWORK			IMPROVED NETWORK			DAILY REDUCTION			ANNUAL REDUCTION			
	DAILY VMT	DAILY VHT	DAILY VHD	DAILY VMT	DAILY VHT	DAILY VHD	VMT	VHT	VHD	VMT	VHT	VHD	
2019	122,707.76	2,772.78	445.56	29,331.02	548.78	60.69	93,376.74	2,224.00	384.87	34,082,510.10	811,760.00	140,477.55	10,585,000
2020	124,965.50	2,823.80	453.76	29,870.69	558.88	61.81	95,094.81	2,264.92	391.95	34,709,605.65	826,695.80	143,061.75	12,592,500
2021	127,264.79	2,875.75	462.11	30,420.30	569.16	62.95	96,844.49	2,306.59	399.16	35,348,238.85	841,905.35	145,693.40	14,600,000
2022	129,606.38	2,928.66	470.61	30,980.01	579.63	64.10	98,626.37	2,349.03	406.51	35,998,625.05	857,395.95	148,376.15	
2023	131,991.06	2,982.55	479.27	31,550.02	590.30	65.28	100,441.04	2,392.25	413.99	36,660,979.60	873,171.25	151,106.35	
2024	134,419.61	3,037.43	488.09	32,130.53	601.10	66.48	102,289.08	2,436.33	421.61	37,335,514.20	889,260.45	153,887.65	
2025	136,892.85	3,093.31	497.07	32,721.71	612.22	67.71	104,171.14	2,481.09	429.36	38,022,466.10	905,597.85	156,716.40	
2026	139,411.59	3,150.23	506.21	33,323.77	623.49	68.95	106,087.82	2,526.74	437.26	38,722,054.30	922,260.10	159,599.90	
2027	141,976.68	3,208.19	515.53	33,936.90	634.96	70.22	108,039.78	2,573.23	445.31	39,434,519.70	939,228.95	162,538.15	
2028	144,588.96	3,267.22	525.01	34,561.32	646.64	71.51	110,027.64	2,620.58	453.50	40,160,088.60	956,511.70	165,527.50	
2029	146,835.08	3,317.97	533.17	35,098.21	656.69	72.63	111,736.87	2,661.28	460.54	40,783,957.55	971,367.20	168,097.10	
2030	149,116.08	3,369.52	541.45	35,643.45	666.89	73.75	113,472.63	2,702.63	467.70	41,417,509.95	986,459.95	170,710.50	
2031	151,432.53	3,421.86	549.86	36,197.15	677.25	74.90	115,235.38	2,744.61	474.96	42,060,913.70	1,001,782.65	173,360.40	
2032	153,784.95	3,475.02	558.41	36,759.45	687.77	76.06	117,025.50	2,787.25	482.35	42,714,307.50	1,017,346.25	176,057.75	
2033	156,173.93	3,529.00	567.08	37,330.49	698.45	77.24	118,843.44	2,830.55	489.84	43,377,855.60	1,033,150.75	178,791.60	
2034	158,600.01	3,583.82	575.89	37,910.40	709.30	78.44	120,689.61	2,874.52	497.45	44,051,707.65	1,049,199.80	181,569.25	
2035	161,063.78	3,639.50	584.84	38,499.32	720.32	79.66	122,564.46	2,919.18	505.18	44,736,027.90	1,065,500.70	184,390.70	
2036	163,565.82	3,696.03	593.92	39,097.39	731.51	80.90	124,468.43	2,964.52	513.02	45,430,976.95	1,082,049.80	187,252.30	
2037	166,106.74	3,753.45	603.15	39,704.75	742.87	82.16	126,401.99	3,010.58	520.99	46,136,726.35	1,098,861.70	190,161.35	
2038	168,687.12	3,811.76	612.52	40,321.54	754.41	83.43	128,365.58	3,057.35	529.09	46,853,436.70	1,115,932.75	193,117.85	

Notes: VMT - Vehicles miles traveled. VHT - Vehicle hours traveled. VHD - Vehicle hours of delay. Delay represents the difference in time spent traveling under actual conditions compared to the theoretical time that would be required for the same amount of travel under ideal free-flow conditions. Existing network (as of 2013) includes all major roadways classified as interstate highways, principal arterials, minor arterials or collectors (including those classified as major or minor rural collectors). Some local streets were also included in the network for the sake of continuity. Projected daily reductions in VMT, VHT and VHD were multiplied by 365 to project annual reductions based on the fact that historical traffic data for principal arterials in the vicinity of the project indicate annual average daily traffic (AADT) generally equals or exceeds annual average weekday traffic. The travel demand forecasting model replicates weekday traffic conditions.

Source: Lawrence County representatives (2016). Calculations by Neel-Schaffer, Inc.

**Table 2:**  
**EXISTING ROADWAY MAINTENANCE COST ESTIMATE**

<b>Roadway</b>	<b>Termini (N-S/W-E)</b>	<b>Length (Miles)</b>	<b>Annual Amount (1)</b>
Hwy 586W	eastern limit at US 98, western limit at Hwy 27	17.20	\$87,509.64
Hwy 27N	southern limit at Hwy 586W intersection, northern limit at proposed western project terminus	5.80	\$29,509.07
Hwy 44(587)	southern limit at Hwy 586 intersection, northern limit at intersection with Morgantown Rd	7.00	\$35,614.39
Morgantown Rd/Carney Rd	eastern limit at Hwy 44N (587) intersection, western limit at Hwy 27	13.40	\$68,176.12
Jones Ln	eastern limit at Hwy 13 intersection, western limit at Hwy 35 intersection	1.30	\$6,614.10
Hwy 35	northern limit at Jones Ln intersection, southern limit at Hwy 98 intersection	2.90	\$14,754.53
Hwy 587S	northern limit at MS Hwy 44 intersection, southern limit at Morgantown Rd. intersection	4.90	\$24,930.07
Ranch Rd	northern limit at Hwy 587 intersection, southern limit at John Dunaway Rd	1.10	\$5,596.55
John Dunaway Rd	Northern limit at Ranch Rd intersection, southern limit at Morgantown Rd intersection	2.40	\$12,210.65
Hwy 84	eastern limit at Hwy 184 in Prentiss, western limit at Hwy 27 intersection	18.30	\$93,106.19
Hwy 27S	northern limit at Hwy 84, southern limit at proposed western project terminus	15.20	\$77,334.10
Hwy 13S	northern limit at Hwy 184, southern limit at MS Hwy 44	15.60	\$79,369.21
Hwy 587N	northern limit at Tilton Rd, southern limit at MS Hwy 44	5.70	\$29,000.29
Tilton Rd	eastern limit at Hwy 587N, western limit at Givens-Mullins Rd	3.50	\$17,807.20
Givens-Mullins Rd	northern limit at Tilton Rd, southern limit at Price Rd	0.71	\$3,612.32
Price Rd	eastern limit at Givens-Mullins Rd, western limit at Hwy 27	3.90	\$19,842.30
Billy Smith Rd	eastern limit at Ranch Rd, western limit at Jay Price Rd	2.30	\$11,701.87
Jay Price Rd	eastern limit at Billy smith Rd, western limit at Thornhill Rd	0.90	\$4,578.99
Thornhill Rd	eastern limit at Jay Price Rd, western limit at County Line Rd	1.20	\$6,105.32
County Line Rd	southeastern limit at Thornhill Rd, northwestern limit at Rials Rd	4.6	\$23,403.74
Rials Rd	southern limit at Holmes Rd, northern limit at Price Rd	1.3	\$6,614.10
Hwy 587S	northern limit at Hwy 184 in Monticello, southern limit at Hwy 44	17.6	\$89,544.75
<b>Total</b>		<b>146.81</b>	<b>\$746,935.51</b>

(1) Annual amount equals length in miles multiplied by the maintenance cost per mile reported by the Mississippi Department of Transportation for state-maintained routes in Lawrence County in the year 2016 - \$5,087.77

Source: Neel-Schaffer (2017). Maintenance cost per mile based on Mississippi Department of Transportation (2017): 2016 Annual Report, "Maintenance Expenditures by County, Fiscal Year: 2016."

**Table 3:**  
**NEW ROADWAY MAINTENANCE COST ESTIMATE**

<b>Roadway</b>	<b>Termini (N-S/W-E)</b>	<b>Length (Miles)</b>	<b>Annual Amount (1)</b>
MS HWY 44	eastern limit at proposed eastern project terminus with existing MS HWY 44, western limit at proposed western project terminus with HWY 27	10.01	\$50,928.58
<b>Total</b>		<b>10.01</b>	<b>\$50,928.58</b>

(1) Annual amount equals length in miles multiplied by the maintenance cost per mile reported by the Mississippi Department of Transportation for state-maintained routes in Lawrence County in the year 2011 - \$5,549.30.

*Source: Neel-Schaffer (2017). Maintenance cost per mile based on Mississippi Department of Transportation (2016): 2016 Annual Report, "Maintenance Expenditures by County, Fiscal Year: 2016."*

**Table 4:**  
**ROADWAY CONSTRUCTION AND MAINTENANCE COST BY YEAR**

<b>Year</b>	<b>Construction Amount (1)</b>	<b>Maintenance Amount (2)</b>	<b>Total Amount</b>
2018	\$24,761,061.00	\$0.00	\$24,761,061.00
2019		\$50,928.58	\$50,928.58
2020		\$50,928.58	\$50,928.58
2021		\$50,928.58	\$50,928.58
2022		\$50,928.58	\$50,928.58
2023		\$50,928.58	\$50,928.58
2024		\$50,928.58	\$50,928.58
2025		\$50,928.58	\$50,928.58
2026		\$50,928.58	\$50,928.58
2027		\$50,928.58	\$50,928.58
2028		\$50,928.58	\$50,928.58
2029		\$50,928.58	\$50,928.58
2030		\$50,928.58	\$50,928.58
2031		\$50,928.58	\$50,928.58
2032		\$50,928.58	\$50,928.58
2033		\$50,928.58	\$50,928.58
2034		\$50,928.58	\$50,928.58
2035		\$50,928.58	\$50,928.58
2036		\$50,928.58	\$50,928.58
2037		\$50,928.58	\$50,928.58
2038+		\$50,928.58	\$50,928.58
<b>TOTAL</b>	<b>\$24,761,061.00</b>	<b>\$1,018,571.60</b>	<b>\$25,779,632.60</b>

(1) Source: Lawrence County 2017

(2) Source: Neel-Schaffer (2017). Maintenance cost per mile based on Mississippi Department of Transportation (2017): 2016 Annual Report, "Maintenance Expenditures by County, Fiscal Year: 2016."

Table 5:

**PROJECTED VEHICLE MILES, HOURS AND DELAY FOR TRUCKS COMPARED TO EXISTING NETWORK: 2019 TO 2038**

YEAR	TRUCK FACTOR	EXISTING NETWORK TRUCK			IMPROVED NETWORK TRUCK			DAILY REDUCTION			ANNUAL REDUCTION			annual existing	annual improved	EXISTING DAILY	IMPROVED DAILY
		DAILY VMT	DAILY VHT	DAILY VHD	DAILY VMT	DAILY VHT	DAILY VHD	VMT	VHT	VHD	VMT	VHT	VHD				
2019	0.8640	122,707.76	2,772.78	445.56	29,331.02	548.78	60.69	80,677.50	1,921.54	332.53	29,447,288.73	701,360.64	121,372.60	38,697,119.19	9,249,830.47	106019.5	25342
2020	0.8640	124,965.50	2,823.80	453.76	29,870.69	558.88	61.81	82,161.92	1,956.89	338.64	29,989,099.28	714,265.17	123,605.35	39,409,120.08	9,420,020.80	107970.2	25808.28
2021	0.8640	127,264.79	2,875.75	462.11	30,420.30	569.16	62.95	83,673.64	1,992.89	344.87	30,540,878.37	727,406.22	125,879.10	40,134,224.17	9,593,345.81	109956.8	26283.14
2022	0.8640	129,606.38	2,928.66	470.61	30,980.01	579.63	64.10	85,213.18	2,029.56	351.22	31,102,812.04	740,790.10	128,196.99	40,872,668.00	9,769,855.95	111979.9	26766.73
2023	0.8640	131,991.06	2,982.55	479.27	31,550.02	590.30	65.28	86,781.06	2,066.90	357.69	31,675,086.37	754,419.96	130,555.89	41,624,700.68	9,949,614.31	114040.3	27259.22
2024	0.8640	134,419.61	3,037.43	488.09	32,130.53	601.10	66.48	88,377.77	2,104.99	364.27	32,257,884.27	768,321.03	132,958.93	42,390,568.21	10,132,683.94	116138.5	27760.78
2025	0.8640	136,892.85	3,093.31	497.07	32,721.71	612.22	67.71	90,003.86	2,143.66	370.97	32,851,410.71	782,436.54	135,402.97	43,170,529.18	10,319,118.47	118275.4	28271.56
2026	0.8640	139,411.59	3,150.23	506.21	33,323.77	623.49	68.95	91,659.88	2,183.10	377.79	33,455,854.92	796,832.73	137,894.31	43,964,839.02	10,508,984.11	120451.6	28791.74
2027	0.8640	141,976.68	3,208.19	515.53	33,936.90	634.96	70.22	93,346.37	2,223.27	384.75	34,071,425.02	811,493.81	140,432.96	44,773,765.80	10,702,340.78	122667.9	29321.48
2028	0.8640	144,588.96	3,267.22	525.01	34,561.32	646.64	71.51	95,063.88	2,264.18	391.82	34,698,316.55	826,426.11	143,015.76	45,597,574.43	10,899,257.88	124924.9	29860.98
2029	0.8640	146,835.08	3,317.97	533.17	35,098.21	656.69	72.63	96,540.66	2,299.35	397.91	35,237,339.32	839,261.26	145,235.89	46,305,910.83	11,068,571.51	126865.5	30324.85
2030	0.8640	149,116.08	3,369.52	541.45	35,643.45	666.89	73.75	98,040.35	2,335.07	404.09	35,784,728.60	852,301.40	147,493.87	47,025,246.99	11,240,518.39	128836.3	30795.94
2031	0.8640	151,432.53	3,421.86	549.86	36,197.15	677.25	74.90	99,563.37	2,371.34	410.37	36,340,629.44	865,540.21	149,783.39	47,755,762.66	11,415,133.22	130837.7	31274.34
2032	0.8640	153,784.95	3,475.02	558.41	36,759.45	687.77	76.06	101,110.03	2,408.18	416.75	36,905,161.68	878,987.16	152,113.90	48,497,621.83	11,592,460.15	132870.2	31760.16
2033	0.8640	156,173.93	3,529.00	567.08	37,330.49	698.45	77.24	102,680.73	2,445.60	423.22	37,478,467.24	892,642.25	154,475.94	49,251,010.56	11,772,543.33	134934.3	32253.54
2034	0.8640	158,600.01	3,583.82	575.89	37,910.40	709.30	78.44	104,275.82	2,483.59	429.80	38,060,675.41	906,508.63	156,875.83	50,016,099.15	11,955,423.74	137030.4	32754.59
2035	0.8640	161,063.78	3,639.50	584.84	38,499.32	720.32	79.66	105,895.69	2,522.17	436.48	38,651,928.11	920,592.60	159,313.56	50,793,073.66	12,141,145.56	139159.1	33263.41
2036	0.8640	163,565.82	3,696.03	593.92	39,097.39	731.51	80.90	107,540.72	2,561.35	443.25	39,252,364.08	934,891.03	161,785.99	51,582,117.00	12,329,752.91	141320.9	33780.14
2037	0.8640	166,106.74	3,753.45	603.15	39,704.75	742.87	82.16	109,211.32	2,601.14	450.14	39,862,131.57	949,416.51	164,299.41	52,383,421.53	12,521,289.96	143516.2	34304.9
2038	0.8640	168,687.12	3,811.76	612.52	40,321.54	754.41	83.43	110,907.86	2,641.55	457.13	40,481,369.31	964,165.90	166,853.82	53,197,170.16	12,715,800.85	145745.7	34837.81

Notes: VMT - Vehicles miles traveled. VHT - Vehicle hours traveled. VHD - Vehicle hours of delay. Delay represents the difference in time spent traveling under actual conditions compared to the theoretical time that would be required for the same amount of travel under ideal free-flow conditions. Existing network (as of 2013) includes all major roadways classified as interstate highways, principal arterials, minor arterials or collectors (including those classified as major or minor rural collectors). Some local streets were also included in the network for the sake of continuity. Projected daily reductions in VMT, VHT and VHD were multiplied by 365 to project annual reductions based on the fact that historical traffic data for principal arterials in the vicinity of the project indicate annual average daily traffic (AADT) generally equals or exceeds annual average weekday traffic.

Truck factor was derived from model output data and represents share of all miles traveled by heavy trucks.

Source: Lawrence County representative(2016). Calculations by Neel-Schaffer, Inc.

Table 6:

**PROJECTED VEHICLE MILES, HOURS AND DELAY FOR PASSENGER VEHICLES COMPARED TO EXISTING NETWORK: 2019-2038**

YEAR	PASS VEH FACTOR	EXISTING NETWORK PASS VEH			IMPROVED NETWORK PASS VEH			DAILY REDUCTION			ANNUAL REDUCTION			annual existing	annual improve
		DAILY VMT	DAILY VHT	DAILY VHD	DAILY VMT	DAILY VHT	DAILY VHD	VMT	VHT	VHD	VMT	VHT	VHD		
2019	1.0000	122,707.76	2,772.78	445.56	29,331.02	548.78	60.69	93,376.74	2,224.00	384.87	34,082,510.10	811,760.00	140,477.55	44,788,332.40	10,705,822.30
2020	1.0000	124,965.50	2,823.80	453.76	29,870.69	558.88	61.81	95,094.81	2,264.92	391.95	34,709,605.65	826,695.80	143,061.75	45,612,407.50	10,902,801.85
2021	1.0000	127,264.79	2,875.75	462.11	30,420.30	569.16	62.95	96,844.49	2,306.59	399.16	35,348,238.85	841,905.35	145,693.40	46,451,648.35	11,103,409.50
2022	1.0000	129,606.38	2,928.66	470.61	30,980.01	579.63	64.10	98,626.37	2,349.03	406.51	35,998,625.05	857,395.95	148,376.15	47,306,328.70	11,307,703.65
2023	1.0000	131,991.06	2,982.55	479.27	31,550.02	590.30	65.28	100,441.04	2,392.25	413.99	36,660,979.60	873,171.25	151,106.35	48,176,736.90	11,515,757.30
2024	1.0000	134,419.61	3,037.43	488.09	32,130.53	601.10	66.48	102,289.08	2,436.33	421.61	37,335,514.20	889,260.45	153,887.65	49,063,157.65	11,727,643.45
2025	1.0000	136,892.85	3,093.31	497.07	32,721.71	612.22	67.71	104,171.14	2,481.09	429.36	38,022,466.10	905,597.85	156,716.40	49,965,890.25	11,943,424.15
2026	1.0000	139,411.59	3,150.23	506.21	33,323.77	623.49	68.95	106,087.82	2,526.74	437.26	38,722,054.30	922,260.10	159,599.90	50,885,230.35	12,163,176.05
2027	1.0000	141,976.68	3,208.19	515.53	33,936.90	634.96	70.22	108,039.78	2,573.23	445.31	39,434,519.70	939,228.95	162,538.15	51,821,488.20	12,386,968.50
2028	1.0000	144,588.96	3,267.22	525.01	34,561.32	646.64	71.51	110,027.64	2,620.58	453.50	40,160,088.60	956,511.70	165,527.50	52,774,970.40	12,614,881.80
2029	1.0000	146,835.08	3,317.97	533.17	35,098.21	656.69	72.63	111,736.87	2,661.28	460.54	40,783,957.55	971,367.20	168,097.10	53,594,804.20	12,810,846.65
2030	1.0000	149,116.08	3,369.52	541.45	35,643.45	666.89	73.75	113,472.63	2,702.63	467.70	41,417,509.95	986,459.95	170,710.50	54,427,369.20	13,009,859.25
2031	1.0000	151,432.53	3,421.86	549.86	36,197.15	677.25	74.90	115,235.38	2,744.61	474.96	42,060,913.70	1,001,782.65	173,360.40	55,272,873.45	13,211,959.75
2032	1.0000	153,784.95	3,475.02	558.41	36,759.45	687.77	76.06	117,025.50	2,787.25	482.35	42,714,307.50	1,017,346.25	176,057.75	56,131,506.75	13,417,199.25
2033	1.0000	156,173.93	3,529.00	567.08	37,330.49	698.45	77.24	118,843.44	2,830.55	489.84	43,377,855.60	1,033,150.75	178,791.60	57,003,484.45	13,625,628.85
2034	1.0000	158,600.01	3,583.82	575.89	37,910.40	709.30	78.44	120,689.61	2,874.52	497.45	44,051,707.65	1,049,199.80	181,569.25	57,889,003.65	13,837,296.00
2035	1.0000	161,063.78	3,639.50	584.84	38,499.32	720.32	79.66	122,564.46	2,919.18	505.18	44,736,027.90	1,065,500.70	184,390.70	58,788,279.70	14,052,251.80
2036	1.0000	163,565.82	3,696.03	593.92	39,097.39	731.51	80.90	124,468.43	2,964.52	513.02	45,430,976.95	1,082,049.80	187,252.30	59,701,524.30	14,270,547.35
2037	1.0000	166,106.74	3,753.45	603.15	39,704.75	742.87	82.16	126,401.99	3,010.58	520.99	46,136,726.35	1,098,861.70	190,161.35	60,628,960.10	14,492,233.75
2038	1.0000	168,687.12	3,811.76	612.52	40,321.54	754.41	83.43	128,365.58	3,057.35	529.09	46,853,436.70	1,115,932.75	193,117.85	61,570,798.80	14,717,362.10

Notes: VMT - Vehicles miles traveled. VHT - Vehicle hours traveled. VHD - Vehicle hours of delay. Delay represents the difference in time spent traveling under actual conditions compared to the theoretical time that would be required for the same amount of travel under ideal free-flow conditions. Existing network (as of 2013) includes all major roadways classified as interstate highways, principal arterials, minor arterials or collectors (including those classified as major or minor rural collectors). Some local streets were also included in the network for the sake of continuity. Projected daily reductions in VMT, VHT and VHD were multiplied by 365 to project annual reductions based on the fact that historical traffic data for principal arterials in the vicinity of the project indicate annual average daily traffic (AADT) generally equals or exceeds annual average weekday traffic.

Pass Veh factor was derived from model output data and represents share of all miles traveled by passenger vehicles

Source: Lawrence County representative (2016). Calculations by Neel-Schaffer, Inc.

**Table 7:**

**PROJECTED TRAVEL TIME SAVINGS FOR TRUCKS COMPARED TO EXISTING NETWORK: 2019-2038**

YEAR	TRUCK FACTOR	EXISTING NETWORK		IMPROVED NETWORK		DAILY REDUCTION		ANNUAL REDUCTION		ANNUAL TRAVEL TIME SAVINGS
		DAILY VHT	DAILY VHD	DAILY VHT	DAILY VHD	VHT	VHD	VHT	VHD	
2019	0.2000	2,772.78	445.56	548.78	60.69	444.80	76.97	162,352.00	28,095.51	\$4,913,545.76
2020	0.2000	2,823.80	453.76	558.88	61.81	452.98	78.39	165,339.16	28,612.35	\$5,003,948.96
2021	0.2000	2,875.75	462.11	569.16	62.95	461.32	79.83	168,381.07	29,138.68	\$5,096,009.55
2022	0.2000	2,928.66	470.61	579.63	64.10	469.81	81.30	171,479.19	29,675.23	\$5,189,784.04
2023	0.2000	2,982.55	479.27	590.30	65.28	478.45	82.80	174,634.25	30,221.27	\$5,285,272.42
2024	0.2000	3,037.43	488.09	601.10	66.48	487.27	84.32	177,852.09	30,777.53	\$5,382,644.20
2025	0.2000	3,093.31	497.07	612.22	67.71	496.22	85.87	181,119.57	31,343.28	\$5,481,541.53
2026	0.2000	3,150.23	506.21	623.49	68.95	505.35	87.45	184,452.02	31,919.98	\$5,582,397.60
2027	0.2000	3,208.19	515.53	634.96	70.22	514.65	89.06	187,845.79	32,507.63	\$5,685,118.24
2028	0.2000	3,267.22	525.01	646.64	71.51	524.12	90.70	191,302.34	33,105.50	\$5,789,722.27
2029	0.2000	3,317.97	533.17	656.69	72.63	532.26	92.11	194,273.44	33,619.42	\$5,879,635.79
2030	0.2000	3,369.52	541.45	666.89	73.75	540.53	93.54	197,291.99	34,142.10	\$5,970,999.52
2031	0.2000	3,421.86	549.86	677.25	74.90	548.92	94.99	200,356.53	34,672.08	\$6,063,738.14
2032	0.2000	3,475.02	558.41	687.77	76.06	557.45	96.47	203,469.25	35,211.55	\$6,157,964.64
2033	0.2000	3,529.00	567.08	698.45	77.24	566.11	97.97	206,630.15	35,758.32	\$6,253,622.53
2034	0.2000	3,583.82	575.89	709.30	78.44	574.90	99.49	209,839.96	36,313.85	\$6,350,768.30
2035	0.2000	3,639.50	584.84	720.32	79.66	583.84	101.04	213,100.14	36,878.14	\$6,449,439.62
2036	0.2000	3,696.03	593.92	731.51	80.90	592.90	102.60	216,409.96	37,450.46	\$6,549,598.84
2037	0.2000	3,753.45	603.15	742.87	82.16	602.12	104.20	219,772.34	38,032.27	\$6,651,358.94
2038	0.2000	3,811.76	612.52	754.41	83.43	611.47	105.82	223,186.55	38,623.57	\$6,754,701.10
<b>TOTAL</b>										<b>\$116,491,811.96</b>

*Notes: VHT - Vehicle hours traveled. VHD - Vehicle hours of delay. Delay is the difference between travel time under congested conditions compared to free-flow conditions. Existing (2016) network includes all major roadways as well as some local streets required for continuity.*

*Daily data were multiplied by 365 to yield annual equivalents consistent with historical traffic data.*

*Factors representing the passenger vehicle share of total traffic were derived from Lawrence County representatives*

*The value used to monetize travel time savings (\$25.80 per hour) is the U. S. Department of Transportation recommended value for all-purpose local travel updated to 2015 dollars using the Bureau of Labor Statistics Inflation Calculator.*

*Source: U. S. Department of Transportation (2016): TIGER Benefit-Cost Analysis (BCA)*

*Resource Guide.*

**Table 8:**

**FORWARD MISSISSIPPI PHASE 2 PROJECTED TRAVEL TIME SAVINGS FOR PASSENGER VEHICLES COMPARED TO EXISTING NETWORK: 2019-2038**

YEAR	PASS VEH FACTOR	EXISTING NETWORK		IMPROVED NETWORK		DAILY REDUCTION		ANNUAL REDUCTION		ANNUAL TRAVEL TIME SAVINGS
		DAILY VHT	DAILY VHD	DAILY VHT	DAILY VHD	VHT	VHD	VHT	VHD	
2019	0.8000	2,772.78	445.56	548.78	60.69	1,779.20	307.90	649,408.00	112,382.04	\$10,078,482.23
2020	0.8000	2,823.80	453.76	558.88	61.81	1,811.94	313.56	661,356.64	114,449.40	\$10,263,913.91
2021	0.8000	2,875.75	462.11	569.16	62.95	1,845.27	319.33	673,524.28	116,554.72	\$10,452,745.17
2022	0.8000	2,928.66	470.61	579.63	64.10	1,879.22	325.21	685,916.76	118,700.92	\$10,645,091.91
2023	0.8000	2,982.55	479.27	590.30	65.28	1,913.80	331.19	698,537.00	120,885.08	\$10,840,954.12
2024	0.8000	3,037.43	488.09	601.10	66.48	1,949.06	337.29	711,408.36	123,110.12	\$11,040,679.49
2025	0.8000	3,093.31	497.07	612.22	67.71	1,984.87	343.49	724,478.28	125,373.12	\$11,243,534.02
2026	0.8000	3,150.23	506.21	623.49	68.95	2,021.39	349.81	737,808.08	127,679.92	\$11,450,406.24
2027	0.8000	3,208.19	515.53	634.96	70.22	2,058.58	356.25	751,383.16	130,030.52	\$11,661,102.99
2028	0.8000	3,267.22	525.01	646.64	71.51	2,096.46	362.80	765,209.36	132,422.00	\$11,875,662.89
2029	0.8000	3,317.97	533.17	656.69	72.63	2,129.02	368.43	777,093.76	134,477.68	\$12,060,090.15
2030	0.8000	3,369.52	541.45	666.89	73.75	2,162.10	374.16	789,167.96	136,568.40	\$12,247,492.04
2031	0.8000	3,421.86	549.86	677.25	74.90	2,195.69	379.97	801,426.12	138,688.32	\$12,437,714.04
2032	0.8000	3,475.02	558.41	687.77	76.06	2,229.80	385.88	813,877.00	140,846.20	\$12,630,987.94
2033	0.8000	3,529.00	567.08	698.45	77.24	2,264.44	391.87	826,520.60	143,033.28	\$12,827,197.83
2034	0.8000	3,583.82	575.89	709.30	78.44	2,299.62	397.96	839,359.84	145,255.40	\$13,026,459.63
2035	0.8000	3,639.50	584.84	720.32	79.66	2,335.34	404.14	852,400.56	147,512.56	\$13,228,850.58
2036	0.8000	3,696.03	593.92	731.51	80.90	2,371.62	410.42	865,639.84	149,801.84	\$13,434,293.43
2037	0.8000	3,753.45	603.15	742.87	82.16	2,408.46	416.79	879,089.36	152,129.08	\$13,643,019.96
2038	0.8000	3,811.76	612.52	754.41	83.43	2,445.88	423.27	892,746.20	154,494.28	\$13,854,991.55
<b>TOTAL</b>										<b>\$238,943,670.11</b>

*Notes: VHT - Vehicle hours traveled. VHD - Vehicle hours of delay. Delay is the difference between travel time under congested conditions compared to free-flow conditions. Existing (2013) network includes all major roadways as well as some local streets required for continuity.*

*Daily data were multiplied by 365 to yield annual*

*equivalents consistent with historical traffic data. Factors representing the passenger vehicle share of total traffic were derived from model output.*

*The value used to monetize travel time savings (\$13.23 per hour) is the U. S. Department of Transportation recommended value for all-purpose local travel updated to 2015 dollars using the Bureau of Labor Statistics Inflation Calculator.*

*Source: U. S. Department of Transportation (2016): TIGER Benefit-Cost Analysis (BCA)*

*Resource Guide.*



Table 9:

**PROJECTED ANNUAL SOCIAL COST OF CARBON GENERATED BY PASSENGER VEHICLES AND TRUCKS ON EXISTING NETWORK**

YEAR	PASSENGER VEHICLES						TRUCKS					
	VEHICLE MILES	CARBON DIOXIDE FACTOR	DAILY CO2 OUTPUT (Pounds)	DAILY CO2 OUTPUT (Metric Tons)	SOCIAL COST OF CARBON (Per Ton)	ANNUAL SOCIAL COST OF CARBON	VEHICLE MILES	CARBON DIOXIDE FACTOR	DAILY CO2 OUTPUT (Pounds)	DAILY CO2 OUTPUT (Metric Tons)	SOCIAL COST OF CARBON (Per Ton)	ANNUAL SOCIAL COST OF CARBON
2019	122,707.76	1.11009559	136,217	62	\$52.00	\$1,172,519.35	106,019.50	4.21495573	446,868	203	\$52.00	\$3,867,582.64
2020	124,965.50	1.11019931	138,737	63	\$54.00	\$1,240,135.42	107,970.19	4.21520828	455,117	206	\$54.00	\$4,090,478.77
2021	127,264.79	1.11023373	141,294	64	\$55.00	\$1,286,381.08	109,956.78	4.21483461	463,450	210	\$55.00	\$4,242,508.35
2022	129,606.38	1.11061572	143,943	65	\$56.00	\$1,334,327.67	111,979.91	4.19552935	469,815	213	\$56.00	\$4,378,974.18
2023	131,991.06	1.11078571	146,614	66	\$57.00	\$1,383,355.91	131,990.20	4.19512979	553,716	251	\$57.00	\$5,253,145.16
2024	134,419.61	1.11105829	149,348	68	\$59.00	\$1,458,598.49	116,138.54	4.19349747	487,027	221	\$59.00	\$4,782,579.98
2025	136,892.85	1.11105829	152,096	69	\$61.00	\$1,535,789.58	136,891.99	4.19349747	574,056	260	\$61.00	\$5,828,297.55
2026	139,411.59	1.11105829	154,894	70	\$62.00	\$1,589,687.23	139,410.73	4.19349747	584,619	265	\$62.00	\$6,032,838.99
2027	141,976.68	1.11105829	157,744	72	\$63.00	\$1,645,048.41	141,975.82	4.19349747	595,375	270	\$63.00	\$6,242,934.51
2028	144,588.96	1.11105829	160,647	73	\$64.00	\$1,701,908.56	144,588.10	4.19349747	606,330	275	\$64.00	\$6,458,718.69
2029	146,835.08	1.11105829	163,142	74	\$64.00	\$1,728,346.90	146,834.22	4.19349747	615,749	279	\$64.00	\$6,559,052.38
2030	149,116.08	1.11105829	165,677	75	\$66.00	\$1,810,045.66	149,115.22	4.19349747	625,314	284	\$66.00	\$6,869,098.65
2031	151,432.53	1.11105829	168,250	76	\$67.00	\$1,866,014.85	151,431.67	4.19349747	635,028	288	\$67.00	\$7,081,501.63
2032	153,784.95	1.11105829	170,864	77	\$68.00	\$1,923,285.97	153,784.09	4.19349747	644,893	292	\$68.00	\$7,298,845.40
2033	156,173.93	1.11105829	173,518	79	\$69.00	\$1,981,886.35	156,173.07	4.19349747	654,911	297	\$69.00	\$7,521,233.70
2034	158,600.01	1.11105829	176,214	80	\$70.00	\$2,041,843.10	158,599.15	4.19349747	665,085	302	\$70.00	\$7,748,769.47
2035	161,063.78	1.11105829	178,951	81	\$72.00	\$2,132,806.72	161,062.92	4.19349747	675,417	306	\$72.00	\$8,093,975.96
2036	163,565.82	1.11105829	181,731	82	\$73.00	\$2,196,021.21	163,564.96	4.19349747	685,909	311	\$73.00	\$8,333,874.91
2037	166,106.74	1.11105829	184,554	84	\$74.00	\$2,260,685.20	166,105.88	4.19349747	696,565	316	\$74.00	\$8,579,274.66
2038	168,687.12	1.11105829	187,421	85	\$75.00	\$2,326,828.12	168,686.26	4.19349747	707,385	321	\$75.00	\$8,830,286.99
TOTAL	7,865,684.34		3,231,857.28	1,465.69		\$34,615,515.76	2,822,279.15		11,842,628.75	5,370.81		\$128,093,972.58

Notes: Recommended carbon values (pre-discounted at 3.0 percent per annum) were updated from 2013 to 2015 dollars, using the Bureau of Labor Statistics online Inflation Calculator.

Source: South Coast Air Quality Management District (2007) for Carbon Dioxide Factor; TIGER Benefit-Cost Analysis Resource Guide (2015) for Social Cost of Carbon.

**Table 10:**

**PROJECTED ANNUAL SOCIAL COST OF CARBON GENERATED BY PASSENGER VEHICLES AND TRUCKS ON PHASE 2 IMPROVED NETWORK**

YEAR	PASSENGER VEHICLES						TRUCKS					
	VEHICLE MILES	CARBON DIOXIDE FACTOR	DAILY CO2 OUTPUT (Pounds)	DAILY CO2 OUTPUT (Metric Tons)	SOCIAL COST OF CARBON (Per Ton)	ANNUAL SOCIAL COST OF CARBON	VEHICLE MILES	CARBON DIOXIDE FACTOR	DAILY CO2 OUTPUT (Pounds)	DAILY CO2 OUTPUT (Metric Tons)	SOCIAL COST OF CARBON (Per Ton)	ANNUAL SOCIAL COST OF CARBON
2019	29,331.02	1.11009559	32,560	15	\$52.00	\$767.86	25,342.00	4.21495573	106,815	48	\$52.00	\$2,519.00
2020	29,870.69	1.11019931	33,162	15	\$54.00	\$812.14	25,808.28	4.21520828	108,787	49	\$54.00	\$2,664.18
2021	30,420.30	1.11023373	33,774	15	\$55.00	\$842.43	26,283.14	4.21483461	110,779	50	\$55.00	\$2,763.20
2022	30,980.01	1.11061572	34,407	16	\$56.00	\$873.83	26,766.73	4.19552935	112,301	51	\$56.00	\$2,852.08
2023	31,550.02	1.11078571	35,045	16	\$57.00	\$905.93	27,259.22	4.19512979	114,356	52	\$57.00	\$2,956.14
2024	32,130.53	1.11105829	35,699	16	\$59.00	\$955.21	27,760.78	4.19349747	116,415	53	\$59.00	\$3,114.95
2025	32,721.71	1.11105829	36,356	16	\$61.00	\$1,005.76	28,271.56	4.19349747	118,557	54	\$61.00	\$3,279.80
2026	33,323.77	1.11105829	37,025	17	\$62.00	\$1,041.06	28,791.74	4.19349747	120,738	55	\$62.00	\$3,394.90
2027	33,936.90	1.11105829	37,706	17	\$63.00	\$1,077.31	29,321.48	4.19349747	122,960	56	\$63.00	\$3,513.13
2028	34,561.32	1.11105829	38,400	17	\$64.00	\$1,114.55	29,860.98	4.19349747	125,222	57	\$64.00	\$3,634.56
2029	35,098.21	1.11105829	38,996	18	\$64.00	\$1,131.86	30,324.85	4.19349747	127,167	58	\$64.00	\$3,691.02
2030	35,643.45	1.11105829	39,602	18	\$66.00	\$1,185.36	30,795.94	4.19349747	129,143	59	\$66.00	\$3,865.50
2031	36,197.15	1.11105829	40,217	18	\$67.00	\$1,222.02	31,274.34	4.19349747	131,149	59	\$67.00	\$3,985.02
2032	36,759.45	1.11105829	40,842	19	\$68.00	\$1,259.52	31,760.16	4.19349747	133,186	60	\$68.00	\$4,107.33
2033	37,330.49	1.11105829	41,476	19	\$69.00	\$1,297.90	32,253.54	4.19349747	135,255	61	\$69.00	\$4,232.47
2034	37,910.40	1.11105829	42,121	19	\$70.00	\$1,337.16	32,754.59	4.19349747	137,356	62	\$70.00	\$4,360.52
2035	38,499.32	1.11105829	42,775	19	\$72.00	\$1,396.73	33,263.41	4.19349747	139,490	63	\$72.00	\$4,554.78
2036	39,097.39	1.11105829	43,439	20	\$73.00	\$1,438.13	33,780.14	4.19349747	141,657	64	\$73.00	\$4,689.78
2037	39,704.75	1.11105829	44,114	20	\$74.00	\$1,480.48	34,304.90	4.19349747	143,858	65	\$74.00	\$4,827.87
2038	40,321.54	1.11105829	44,800	20	\$75.00	\$1,523.80	34,837.81	4.19349747	146,092	66	\$75.00	\$4,969.12
<b>TOTAL</b>	<b>7,865,684.34</b>		<b>772,515.78</b>	<b>350.35</b>		<b>\$22,669.04</b>	<b>600,815.59</b>		<b>2,521,282.48</b>	<b>1,143.44</b>		<b>\$73,975.35</b>

Notes: Recommended carbon values (pre-discounted at 3.0 percent per annum) were updated from 2013 to 2015 dollars, using the Bureau of Labor Statistics online Inflation Calculator.

Source: South Coast Air Quality Management District (2007) for Carbon Dioxide Factor; TIGER Benefit-Cost Analysis Resource Guide (2015) for Social Cost of Carbon.

Table 11:

**PROJECTED ANNUAL PASSENGER VEHICLE EMISSIONS FOR IMPROVED NETWORK: 2019-2038**

YEAR	DAILY PASS VEH MILES	NOX FACTOR	OXIDES OF NITROGEN (NOX) EMISSIONS			PM10 FACTOR	PARTICULATE MATTER > 2.5 µm (PM10) EMISSIONS			PM2.5 FACTOR	PARTICULATE MATTER ≤ 2.5 µm (PM2.5) EMISSIONS			SOX FACTOR	SULFUR DIOXIDE (SOX) EMISSIONS			ANNUAL EMISSIONS VALUE
			POUNDS	TONS	VALUE		POUNDS	TONS	VALUE		POUNDS	TONS	VALUE		POUNDS	TONS	VALUE	
2019	29,331.02	0.00037757	11.07	0.0050	\$40.25	0.00009640	2.83	0.0013	\$470.16	0.00006364	1.87	0.0008	\$310.39	0.00001073	0.31	0.0001	\$6.76	\$302,060.72
2020	29,870.69	0.00035150	10.50	0.0048	\$38.16	0.00009661	2.89	0.0013	\$479.88	0.00006389	1.91	0.0009	\$317.35	0.00001072	0.32	0.0001	\$6.88	\$307,425.81
2021	30,420.30	0.00032851	9.99	0.0045	\$36.32	0.00009676	2.94	0.0013	\$489.48	0.00006405	1.95	0.0009	\$323.98	0.00001070	0.33	0.0001	\$6.99	\$312,720.73
2022	30,980.01	0.00030721	9.52	0.0043	\$34.59	0.00009676	3.00	0.0014	\$498.48	0.00006410	1.99	0.0009	\$330.22	0.00001080	0.33	0.0002	\$7.19	\$317,728.25
2023	31,550.02	0.00028846	9.10	0.0041	\$33.08	0.00009679	3.05	0.0014	\$507.82	0.00006418	2.02	0.0009	\$336.69	0.00001070	0.34	0.0002	\$7.26	\$322,967.01
2024	32,130.53	0.00027141	8.72	0.0040	\$31.69	0.00009687	3.11	0.0014	\$517.59	0.00006415	2.06	0.0009	\$342.74	0.00001076	0.35	0.0002	\$7.43	\$328,301.72
2025	32,721.71	0.00027141	8.88	0.0040	\$32.28	0.00009687	3.17	0.0014	\$527.12	0.00006415	2.10	0.0010	\$349.05	0.00001076	0.35	0.0002	\$7.56	\$334,342.24
2026	33,323.77	0.00027141	9.04	0.0041	\$32.87	0.00009687	3.23	0.0015	\$536.81	0.00006415	2.14	0.0010	\$355.47	0.00001076	0.36	0.0002	\$7.70	\$340,493.94
2027	33,936.90	0.00027141	9.21	0.0042	\$33.48	0.00009687	3.29	0.0015	\$546.69	0.00006415	2.18	0.0010	\$362.01	0.00001076	0.37	0.0002	\$7.84	\$346,758.75
2028	34,561.32	0.00027141	9.38	0.0043	\$34.09	0.00009687	3.35	0.0015	\$556.75	0.00006415	2.22	0.0010	\$368.67	0.00001076	0.37	0.0002	\$7.99	\$353,138.92
2029	35,098.21	0.00027141	9.53	0.0043	\$34.62	0.00009687	3.40	0.0015	\$565.40	0.00006415	2.25	0.0010	\$374.40	0.00001076	0.38	0.0002	\$8.11	\$358,624.73
2030	35,643.45	0.00027141	9.67	0.0044	\$35.16	0.00009687	3.45	0.0016	\$574.18	0.00006415	2.29	0.0010	\$380.22	0.00001076	0.38	0.0002	\$8.24	\$364,195.85
2031	36,197.15	0.00027141	9.82	0.0045	\$35.71	0.00009687	3.51	0.0016	\$583.10	0.00006415	2.32	0.0011	\$386.12	0.00001076	0.39	0.0002	\$8.37	\$369,853.42
2032	36,759.45	0.00027141	9.98	0.0045	\$36.26	0.00009687	3.56	0.0016	\$592.16	0.00006415	2.36	0.0011	\$392.12	0.00001076	0.40	0.0002	\$8.50	\$375,598.86
2033	37,330.49	0.00027141	10.13	0.0046	\$36.82	0.00009687	3.62	0.0016	\$601.36	0.00006415	2.39	0.0011	\$398.21	0.00001076	0.40	0.0002	\$8.63	\$381,433.61
2034	37,910.40	0.00027141	10.29	0.0047	\$37.40	0.00009687	3.67	0.0017	\$610.70	0.00006415	2.43	0.0011	\$404.40	0.00001076	0.41	0.0002	\$8.76	\$387,358.98
2035	38,499.32	0.00027141	10.45	0.0047	\$37.98	0.00009687	3.73	0.0017	\$620.19	0.00006415	2.47	0.0011	\$410.68	0.00001076	0.41	0.0002	\$8.90	\$393,376.42
2036	39,097.39	0.00027141	10.61	0.0048	\$38.57	0.00009687	3.79	0.0017	\$629.82	0.00006415	2.51	0.0011	\$417.06	0.00001076	0.42	0.0002	\$9.04	\$399,487.35
2037	39,704.75	0.00027141	10.78	0.0049	\$39.17	0.00009687	3.85	0.0017	\$639.61	0.00006415	2.55	0.0012	\$423.54	0.00001076	0.43	0.0002	\$9.18	\$405,693.20
2038	40,321.54	0.00027141	10.94	0.0050	\$39.77	0.00009687	3.91	0.0018	\$649.54	0.00006415	2.59	0.0012	\$430.12	0.00001076	0.43	0.0002	\$9.32	\$411,995.41
Total	695,388.42		197.63	0.0896	\$718.26		67.33	0.0305	\$11,196.83		44.58	0.0202	\$7,413.46		7.4770	0.0034	\$160.63	\$7,113,555.92

Notes: Emission factors are from South Coast Air Quality Management District (2007), "EMFAC 2007 Emission Factors." NOX - Oxides of nitrogen. PM 10 - Particulate matter less than 10 micrometers in diameter but greater than 2.5 micrometers. PM2.5 - Particulate matter 2.5 micrometers or less in diameter. SOX - Sulfur dioxide. Assumed values are based on National Highway Transportation Safety Administration (2012) recommended amounts updated to 2015 dollars per the Bureau of Labor Statistics Inflation Calculator: \$8,014 per metric ton for NOX, \$366,663 per metric ton for particulate matter, \$47,372 per metric ton for SOX.

Table 12:

**PROJECTED ANNUAL TRUCK EMISSIONS FOR IMPROVED NETWORK: 2019-2038**

YEAR	DAILY TRUCK MILES	NOX FACTOR	OXIDES OF NITROGEN (NOX) EMISSIONS			PM10 FACTOR	PARTICULATE MATTER > 2.5 µm (PM10) EMISSIONS			PM2.5 FACTOR	PARTICULATE MATTER ≤ 2.5 µm (PM2.5) EMISSIONS			SOX FACTOR	SULFUR DIOXIDE (SOX) EMISSIONS			ANNUAL EMISSIONS VALUE
			POUNDS	TONS	VALUE		POUNDS	TONS	VALUE		POUNDS	TONS	VALUE		POUNDS	TONS	VALUE	
2019	25,342.00	0.01179977	299.03	0.1356	\$1,086.81	0.00059437	15.06	0.0068	\$2,504.71	0.00046287	11.73	0.0053	\$1,950.57	0.0004033	1.02	0.0005	\$21.96	\$2,030,879.05
2020	25,808.28	0.01098794	283.58	0.1286	\$1,030.66	0.00055427	14.30	0.0065	\$2,378.71	0.00042597	10.99	0.0050	\$1,828.08	0.0004106	1.06	0.0005	\$22.76	\$1,919,977.50
2021	26,283.14	0.01031407	271.09	0.1229	\$985.25	0.00052122	13.70	0.0062	\$2,278.00	0.00039592	10.41	0.0047	\$1,730.40	0.0004009	1.05	0.0005	\$22.64	\$1,830,947.87
2022	26,766.73	0.00974372	260.81	0.1183	\$947.90	0.00050766	13.59	0.0062	\$2,259.56	0.00038320	10.26	0.0047	\$1,705.60	0.0003930	1.05	0.0005	\$22.60	\$1,801,513.47
2023	27,259.22	0.00932573	254.21	0.1153	\$923.93	0.00048541	13.23	0.0060	\$2,200.31	0.00036326	9.90	0.0045	\$1,646.59	0.0004018	1.10	0.0005	\$23.53	\$1,749,939.91
2024	27,760.78	0.00898990	249.57	0.1132	\$907.04	0.00046717	12.97	0.0059	\$2,156.59	0.00034564	9.60	0.0044	\$1,595.58	0.0003946	1.10	0.0005	\$23.53	\$1,709,200.60
2025	28,271.56	0.00898990	254.16	0.1153	\$923.73	0.00046717	13.21	0.0060	\$2,196.27	0.00034564	9.77	0.0044	\$1,624.94	0.0003946	1.12	0.0005	\$23.97	\$1,740,648.74
2026	28,791.74	0.00898990	258.83	0.1174	\$940.73	0.00046717	13.45	0.0061	\$2,236.68	0.00034564	9.95	0.0045	\$1,654.84	0.0003946	1.14	0.0005	\$24.41	\$1,772,675.64
2027	29,321.48	0.00898990	263.60	0.1195	\$958.04	0.00046717	13.70	0.0062	\$2,277.83	0.00034564	10.13	0.0046	\$1,685.28	0.0003946	1.16	0.0005	\$24.86	\$1,805,291.41
2028	29,860.98	0.00898990	268.45	0.1217	\$975.66	0.00046717	13.95	0.0063	\$2,319.74	0.00034564	10.32	0.0047	\$1,716.29	0.0003946	1.18	0.0005	\$25.31	\$1,838,507.77
2029	30,324.85	0.00898990	272.62	0.1236	\$990.82	0.00046717	14.17	0.0064	\$2,355.77	0.00034564	10.48	0.0048	\$1,742.95	0.0003946	1.20	0.0005	\$25.71	\$1,867,067.92
2030	30,795.94	0.00898990	276.85	0.1256	\$1,006.21	0.00046717	14.39	0.0065	\$2,392.37	0.00034564	10.64	0.0048	\$1,770.03	0.0003946	1.22	0.0006	\$26.11	\$1,896,072.25
2031	31,274.34	0.00898990	281.15	0.1275	\$1,021.84	0.00046717	14.61	0.0066	\$2,429.53	0.00034564	10.81	0.0049	\$1,797.53	0.0003946	1.23	0.0006	\$26.51	\$1,925,526.61
2032	31,760.16	0.00898990	285.52	0.1295	\$1,037.72	0.00046717	14.84	0.0067	\$2,467.28	0.00034564	10.98	0.0050	\$1,825.45	0.0003946	1.25	0.0006	\$26.92	\$1,955,438.46
2033	32,253.54	0.00898990	289.96	0.1315	\$1,053.84	0.00046717	15.07	0.0068	\$2,505.60	0.00034564	11.15	0.0051	\$1,853.81	0.0003946	1.27	0.0006	\$27.34	\$1,985,815.23
2034	32,754.59	0.00898990	294.46	0.1335	\$1,070.21	0.00046717	15.30	0.0069	\$2,544.53	0.00034564	11.32	0.0051	\$1,882.61	0.0003946	1.29	0.0006	\$27.77	\$2,016,663.86
2035	33,263.41	0.00898990	299.03	0.1356	\$1,086.83	0.00046717	15.54	0.0070	\$2,584.06	0.00034564	11.50	0.0052	\$1,911.85	0.0003946	1.31	0.0006	\$28.20	\$2,047,991.77
2036	33,780.14	0.00898990	303.68	0.1377	\$1,103.72	0.00046717	15.78	0.0072	\$2,624.20	0.00034564	11.68	0.0053	\$1,941.55	0.0003946	1.33	0.0006	\$28.64	\$2,079,806.42
2037	34,304.90	0.00898990	308.40	0.1399	\$1,120.86	0.00046717	16.03	0.0073	\$2,664.96	0.00034564	11.86	0.0054	\$1,971.71	0.0003946	1.35	0.0006	\$29.08	\$2,112,115.26
2038	34,837.81	0.00898990	313.19	0.1420	\$1,138.27	0.00046717	16.28	0.0074	\$2,706.36	0.00034564	12.04	0.0055	\$2,002.34	0.0003946	1.37	0.0006	\$29.53	\$2,144,925.73
Total	600,815.59		5,588.18	2.5343	\$20,310.06		289.16	0.1311	\$48,083.04		215.52	0.0977	\$35,838.02		23.8021	0.0108	\$511.36	\$38,231,005.44

Notes: Emission factors are from South Coast Air Quality Management District (2007), "EMFAC 2007 Emission Factors." NOX - Oxides of nitrogen. PM 10 - Particulate matter less than 10 micrometers in diameter but greater than 2.5 micrometers. PM2.5 - Particulate matter 2.5 micrometers or less in diameter. SOX - Sulfur dioxide. Assumed values are based on National Highway Transportation Safety Administration (2012) recommended amounts updated to 2015 dollars per the Bureau of Labor Statistics Inflation Calculator: \$8,014 per metric ton for NOX, \$366,663 per metric ton for particulate matter, \$47,372 per metric ton for SOX.

**Table 13:**

**PROJECTED ANNUAL PASSENGER VEHICLE EMISSIONS FOR EXISTING NETWORK: 2019-2038**

YEAR	DAILY PASS VEH MILES	NOX FACTOR	OXIDES OF NITROGEN (NOX) EMISSIONS			PM10 FACTOR	PARTICULATE MATTER > 2.5 µm (PM10) EMISSIONS			PM2.5 FACTOR	PARTICULATE MATTER ≤ 2.5 µm (PM2.5) EMISSIONS			SOX FACTOR	SULFUR DIOXIDE (SOX) EMISSIONS			ANNUAL EMISSIONS VALUE
			POUNDS	TONS	VALUE		POUNDS	TONS	VALUE		POUNDS	TONS	VALUE		POUNDS	TONS	VALUE	
2019	122,707.76	0.00037757	46.33	0.0210	\$168.39	0.00009640	11.83	0.0054	\$1,966.94	0.00006364	7.81	0.0035	\$1,298.54	0.00001073	1.32	0.0006	\$28.28	\$1,263,685.85
2020	124,965.50	0.00035150	43.92	0.0199	\$159.64	0.00009661	12.07	0.0055	\$2,007.59	0.00006389	7.98	0.0036	\$1,327.64	0.00001072	1.34	0.0006	\$28.77	\$1,286,131.00
2021	127,264.79	0.00032851	41.81	0.0190	\$151.95	0.00009676	12.31	0.0056	\$2,047.76	0.00006405	8.15	0.0037	\$1,355.37	0.00001070	1.36	0.0006	\$29.26	\$1,308,282.23
2022	129,606.38	0.00030721	39.82	0.0181	\$144.71	0.00009676	12.54	0.0057	\$2,085.44	0.00006410	8.31	0.0038	\$1,381.51	0.00001080	1.40	0.0006	\$30.08	\$1,329,231.59
2023	131,991.06	0.00028846	38.07	0.0173	\$138.38	0.00009679	12.78	0.0058	\$2,124.48	0.00006418	8.47	0.0038	\$1,408.56	0.00001070	1.41	0.0006	\$30.35	\$1,351,148.38
2024	134,419.61	0.00027141	36.48	0.0165	\$132.60	0.00009687	13.02	0.0059	\$2,165.37	0.00006415	8.62	0.0039	\$1,433.89	0.00001076	1.45	0.0007	\$31.07	\$1,373,465.94
2025	136,892.85	0.00027141	37.15	0.0168	\$135.04	0.00009687	13.26	0.0060	\$2,205.21	0.00006415	8.78	0.0040	\$1,460.27	0.00001076	1.47	0.0007	\$31.64	\$1,398,736.89
2026	139,411.59	0.00027141	37.84	0.0172	\$137.52	0.00009687	13.51	0.0061	\$2,245.79	0.00006415	8.94	0.0041	\$1,487.14	0.00001076	1.50	0.0007	\$32.22	\$1,424,472.74
2027	141,976.68	0.00027141	38.53	0.0175	\$140.05	0.00009687	13.75	0.0062	\$2,287.11	0.00006415	9.11	0.0041	\$1,514.50	0.00001076	1.53	0.0007	\$32.82	\$1,450,682.19
2028	144,588.96	0.00027141	39.24	0.0178	\$142.63	0.00009687	14.01	0.0064	\$2,329.19	0.00006415	9.28	0.0042	\$1,542.37	0.00001076	1.56	0.0007	\$33.42	\$1,477,373.81
2029	146,835.08	0.00027141	39.85	0.0181	\$144.84	0.00009687	14.22	0.0065	\$2,365.37	0.00006415	9.42	0.0043	\$1,566.33	0.00001076	1.58	0.0007	\$33.94	\$1,500,324.10
2030	149,116.08	0.00027141	40.47	0.0184	\$147.09	0.00009687	14.45	0.0066	\$2,402.12	0.00006415	9.57	0.0043	\$1,590.66	0.00001076	1.60	0.0007	\$34.47	\$1,523,630.79
2031	151,432.53	0.00027141	41.10	0.0186	\$149.38	0.00009687	14.67	0.0067	\$2,439.43	0.00006415	9.71	0.0044	\$1,615.37	0.00001076	1.63	0.0007	\$35.00	\$1,547,299.70
2032	153,784.95	0.00027141	41.74	0.0189	\$151.70	0.00009687	14.90	0.0068	\$2,477.33	0.00006415	9.87	0.0045	\$1,640.46	0.00001076	1.65	0.0008	\$35.54	\$1,571,336.14
2033	156,173.93	0.00027141	42.39	0.0192	\$154.05	0.00009687	15.13	0.0069	\$2,515.81	0.00006415	10.02	0.0045	\$1,665.95	0.00001076	1.68	0.0008	\$36.10	\$1,595,746.14
2034	158,600.01	0.00027141	43.05	0.0195	\$156.45	0.00009687	15.36	0.0070	\$2,554.89	0.00006415	10.17	0.0046	\$1,691.82	0.00001076	1.71	0.0008	\$36.66	\$1,620,535.22
2035	161,063.78	0.00027141	43.71	0.0198	\$158.88	0.00009687	15.60	0.0071	\$2,594.58	0.00006415	10.33	0.0047	\$1,718.11	0.00001076	1.73	0.0008	\$37.23	\$1,645,709.40
2036	163,565.82	0.00027141	44.39	0.0201	\$161.35	0.00009687	15.85	0.0072	\$2,634.89	0.00006415	10.49	0.0048	\$1,744.80	0.00001076	1.76	0.0008	\$37.81	\$1,671,274.62
2037	166,106.74	0.00027141	45.08	0.0204	\$163.85	0.00009687	16.09	0.0073	\$2,675.82	0.00006415	10.66	0.0048	\$1,771.90	0.00001076	1.79	0.0008	\$38.39	\$1,697,237.10
2038	168,687.12	0.00027141	45.78	0.0208	\$166.40	0.00009687	16.34	0.0074	\$2,717.39	0.00006415	10.82	0.0049	\$1,799.43	0.00001076	1.81	0.0008	\$38.99	\$1,723,602.78
Total	2,909,191.22		826.77	0.3750	\$3,004.89		281.70	0.1278	\$46,842.49		186.51	0.0846	\$31,014.59		31.2803	0.0142	\$672.02	\$29,759,906.61

Notes: Emission factors are from South Coast Air Quality Management District (2007), "EMFAC 2007 Emission Factors." NOX - Oxides of nitrogen. PM 10 - Particulate matter less than 10 micrometers in diameter but greater than 2.5 micrometers. PM2.5 - Particulate matter 2.5 micrometers or less in diameter. SOX - Sulfur dioxide. Assumed values are based on National Highway Transportation Safety Administration (2012) recommended amounts updated to 2015 dollars per the Bureau of Labor Statistics Inflation Calculator: \$8,014 per metric ton for NOX, \$366,663 per metric ton for particulate matter, \$47,372 per metric ton for SOX.

**Table 14:**  
**PROJECTED ANNUAL TRUCK EMISSIONS FOR EXISTING NETWORK: 2019-2038**

YEAR	DAILY TRUCK MILES	NOX FACTOR	OXIDES OF NITROGEN (NOX) EMISSIONS			PM10 FACTOR	PARTICULATE MATTER > 2.5 µm (PM10) EMISSIONS			PM2.5 FACTOR	PARTICULATE MATTER ≤ 2.5 µm (PM2.5) EMISSIONS			SOX FACTOR	SULFUR DIOXIDE (SOX) EMISSIONS			ANNUAL EMISSIONS VALUE
			POUNDS	TONS	VALUE		POUNDS	TONS	VALUE		POUNDS	TONS	VALUE		POUNDS	TONS	VALUE	
2019	106,019.50	0.01179977	1,251.01	0.5673	\$4,546.74	0.00059437	63.02	0.0286	\$10,478.58	0.00046287	49.07	0.0223	\$8,160.31	0.0004033	4.28	0.0019	\$91.85	\$8,496,282.06
2020	107,970.19	0.01098794	1,186.37	0.5380	\$4,311.82	0.00055427	59.84	0.0271	\$9,951.44	0.00042597	45.99	0.0209	\$7,647.86	0.0004106	4.43	0.0020	\$95.24	\$8,032,320.26
2021	109,956.78	0.01031407	1,134.10	0.5143	\$4,121.85	0.00052122	57.31	0.0260	\$9,530.12	0.00039592	43.53	0.0197	\$7,239.23	0.0004009	4.41	0.0020	\$94.71	\$7,659,858.57
2022	111,979.91	0.00974372	1,091.10	0.4948	\$3,965.57	0.00050766	56.85	0.0258	\$9,452.96	0.00038320	42.91	0.0195	\$7,135.46	0.0003930	4.40	0.0020	\$94.55	\$7,536,719.29
2023	114,040.28	0.00932573	1,063.51	0.4823	\$3,865.29	0.00048541	55.36	0.0251	\$9,205.10	0.00036326	41.43	0.0188	\$6,888.59	0.0004018	4.58	0.0021	\$98.45	\$7,320,959.67
2024	116,138.54	0.00898990	1,044.07	0.4735	\$3,794.65	0.00046717	54.26	0.0246	\$9,022.18	0.00034564	40.14	0.0182	\$6,675.19	0.0003946	4.58	0.0021	\$98.45	\$7,150,522.52
2025	118,275.42	0.00898990	1,063.28	0.4822	\$3,864.47	0.00046717	55.25	0.0251	\$9,188.18	0.00034564	40.88	0.0185	\$6,798.01	0.0003946	4.67	0.0021	\$100.26	\$7,282,087.83
2026	120,451.61	0.00898990	1,082.85	0.4911	\$3,935.57	0.00046717	56.27	0.0255	\$9,357.24	0.00034564	41.63	0.0189	\$6,923.09	0.0003946	4.75	0.0022	\$102.11	\$7,416,073.55
2027	122,667.85	0.00898990	1,102.77	0.5001	\$4,007.99	0.00046717	57.31	0.0260	\$9,529.41	0.00034564	42.40	0.0192	\$7,050.47	0.0003946	4.84	0.0022	\$103.98	\$7,552,524.87
2028	124,924.86	0.00898990	1,123.06	0.5093	\$4,081.73	0.00046717	58.36	0.0265	\$9,704.74	0.00034564	43.18	0.0196	\$7,180.20	0.0003946	4.93	0.0022	\$105.90	\$7,691,486.49
2029	126,865.51	0.00898990	1,140.51	0.5172	\$4,145.14	0.00046717	59.27	0.0269	\$9,855.50	0.00034564	43.85	0.0199	\$7,291.74	0.0003946	5.01	0.0023	\$107.54	\$7,810,970.04
2030	128,836.29	0.00898990	1,158.23	0.5253	\$4,209.53	0.00046717	60.19	0.0273	\$10,008.60	0.00034564	44.53	0.0202	\$7,405.01	0.0003946	5.08	0.0023	\$109.21	\$7,932,309.04
2031	130,837.71	0.00898990	1,176.22	0.5334	\$4,274.92	0.00046717	61.12	0.0277	\$10,164.08	0.00034564	45.22	0.0205	\$7,520.04	0.0003946	5.16	0.0023	\$110.91	\$8,055,533.83
2032	132,870.20	0.00898990	1,194.49	0.5417	\$4,341.33	0.00046717	62.07	0.0282	\$10,321.97	0.00034564	45.93	0.0208	\$7,636.86	0.0003946	5.24	0.0024	\$112.63	\$8,180,672.06
2033	134,934.28	0.00898990	1,213.05	0.5501	\$4,408.77	0.00046717	63.04	0.0286	\$10,482.32	0.00034564	46.64	0.0212	\$7,755.50	0.0003946	5.32	0.0024	\$114.38	\$8,307,755.12
2034	137,030.41	0.00898990	1,231.89	0.5587	\$4,477.26	0.00046717	64.02	0.0290	\$10,645.15	0.00034564	47.36	0.0215	\$7,875.98	0.0003946	5.41	0.0025	\$116.16	\$8,436,811.73
2035	139,159.11	0.00898990	1,251.03	0.5674	\$4,546.81	0.00046717	65.01	0.0295	\$10,810.52	0.00034564	48.10	0.0218	\$7,998.33	0.0003946	5.49	0.0025	\$117.96	\$8,567,873.29
2036	141,320.87	0.00898990	1,270.46	0.5762	\$4,617.45	0.00046717	66.02	0.0299	\$10,978.46	0.00034564	48.85	0.0222	\$8,122.58	0.0003946	5.58	0.0025	\$119.80	\$8,700,970.63
2037	143,516.22	0.00898990	1,290.20	0.5851	\$4,689.18	0.00046717	67.05	0.0304	\$11,149.00	0.00034564	49.61	0.0225	\$8,248.76	0.0003946	5.66	0.0026	\$121.66	\$8,836,136.22
2038	145,745.67	0.00898990	1,310.24	0.5942	\$4,762.02	0.00046717	68.09	0.0309	\$11,322.20	0.00034564	50.38	0.0228	\$8,376.90	0.0003946	5.75	0.0026	\$123.55	\$8,973,400.91
Total	2,513,541.21		23,378.42	10.6025	\$84,968.11		1,209.70	0.5486	\$201,157.74		901.63	0.4089	\$149,930.09		99.5774	0.0452	\$2,139.31	\$159,941,267.98

Notes: Emission factors are from South Coast Air Quality Management District (2007), "EMFAC 2007 Emission Factors." NOX - Oxides of nitrogen. PM 10 - Particulate matter less than 10 micrometers in diameter but greater than 2.5 micrometers. PM2.5 - Particulate matter 2.5 micrometers or less in diameter. SOX - Sulfur dioxide. Assumed values are based on National Highway Transportation Safety Administration (2012) recommended amounts updated to 2015 dollars per the Bureau of Labor Statistics Inflation Calculator: \$8,014 per metric ton for NOX, \$366,663 per metric ton for particulate matter, \$47,372 per metric ton for SOX.

**Table 15:**

**PROJECTED ANNUAL NON-CARBON SAVINGS FOR PASSENGER VEHICLES AND TRUCKS**

YEAR	PASSENGER VEHICLE TIME SAVINGS (1)	TRUCK TIME SAVINGS (2)	EXISTING PASSENGER EMISSIONS COST (3)	IMPROVED PASSENGER EMISSIONS COST (4)	PASSENGER EMISSIONS SAVINGS (5)	EXISTING TRUCK EMISSIONS COST (6)	IMPROVED TRUCK EMISSIONS COST (7)	TRUCK EMISSIONS SAVINGS (5)	TOTAL NON-CARBON SAVINGS
2019	\$10,078,482.23	\$4,913,545.76	\$1,172,519.35	\$767.86	\$1,171,751.49	\$3,867,582.64	\$2,519.00	\$3,865,063.64	\$20,028,843.12
2020	\$10,263,913.91	\$5,003,948.96	\$1,240,135.42	\$812.14	\$1,239,323.28	\$4,090,478.77	\$2,664.18	\$4,087,814.59	\$20,595,000.74
2021	\$10,452,745.17	\$5,096,009.55	\$1,286,381.08	\$842.43	\$1,285,538.65	\$4,242,508.35	\$2,763.20	\$4,239,745.15	\$21,074,038.52
2022	\$10,645,091.91	\$5,189,784.04	\$1,334,327.67	\$873.83	\$1,333,453.85	\$4,378,974.18	\$2,852.08	\$4,376,122.10	\$21,544,451.89
2023	\$10,840,954.12	\$5,285,272.42	\$1,383,355.91	\$905.93	\$1,382,449.97	\$5,253,145.16	\$2,956.14	\$5,250,189.02	\$22,758,865.53
2024	\$11,040,679.49	\$5,382,644.20	\$1,458,598.49	\$955.21	\$1,457,643.28	\$4,782,579.98	\$3,114.95	\$4,779,465.03	\$22,660,431.99
2025	\$11,243,534.02	\$5,481,541.53	\$1,535,789.58	\$1,005.76	\$1,534,783.82	\$5,828,297.55	\$3,279.80	\$5,825,017.75	\$24,084,877.12
2026	\$11,450,406.24	\$5,582,397.60	\$1,589,687.23	\$1,041.06	\$1,588,646.17	\$6,032,838.99	\$3,394.90	\$6,029,444.09	\$24,650,894.10
2027	\$11,661,102.99	\$5,685,118.24	\$1,645,048.41	\$1,077.31	\$1,643,971.09	\$6,242,934.51	\$3,513.13	\$6,239,421.38	\$25,229,613.70
2028	\$11,875,662.89	\$5,789,722.27	\$1,701,908.56	\$1,114.55	\$1,700,794.02	\$6,458,718.69	\$3,634.56	\$6,455,084.13	\$25,821,263.31
2029	\$12,060,090.15	\$5,879,635.79	\$1,728,346.90	\$1,131.86	\$1,727,215.03	\$6,559,052.38	\$3,691.02	\$6,555,361.36	\$26,222,302.33
2030	\$12,247,492.04	\$5,970,999.52	\$1,810,045.66	\$1,185.36	\$1,808,860.29	\$6,869,098.65	\$3,865.50	\$6,865,233.16	\$26,892,585.02
2031	\$12,437,714.04	\$6,063,738.14	\$1,866,014.85	\$1,222.02	\$1,864,792.84	\$7,081,501.63	\$3,985.02	\$7,077,516.61	\$27,443,761.62
2032	\$12,630,987.94	\$6,157,964.64	\$1,923,285.97	\$1,259.52	\$1,922,026.45	\$7,298,845.40	\$4,107.33	\$7,294,738.07	\$28,005,717.10
2033	\$12,827,197.83	\$6,253,622.53	\$1,981,886.35	\$1,297.90	\$1,980,588.45	\$7,521,233.70	\$4,232.47	\$7,517,001.23	\$28,578,410.03
2034	\$13,026,459.63	\$6,350,768.30	\$2,041,843.10	\$1,337.16	\$2,040,505.93	\$7,748,769.47	\$4,360.52	\$7,744,408.96	\$29,162,142.81
2035	\$13,228,850.58	\$6,449,439.62	\$2,132,806.72	\$1,396.73	\$2,131,409.98	\$8,093,975.96	\$4,554.78	\$8,089,421.19	\$29,899,121.37
2036	\$13,434,293.43	\$6,549,598.84	\$2,196,021.21	\$1,438.13	\$2,194,583.08	\$8,333,874.91	\$4,689.78	\$8,329,185.13	\$30,507,660.48
2037	\$13,643,019.96	\$6,651,358.94	\$2,260,685.20	\$1,480.48	\$2,259,204.72	\$8,579,274.66	\$4,827.87	\$8,574,446.79	\$31,128,030.41
2038	\$13,854,991.55	\$6,754,701.10	\$2,326,828.12	\$1,523.80	\$2,325,304.32	\$8,830,286.99	\$4,969.12	\$8,825,317.87	\$31,760,314.83
<b>TOTAL</b>	<b>\$238,943,670.11</b>	<b>\$116,491,811.96</b>	<b>\$34,615,515.76</b>	<b>\$22,669.04</b>	<b>\$34,592,846.72</b>	<b>\$128,093,972.58</b>	<b>\$73,975.35</b>	<b>\$128,019,997.23</b>	<b>\$518,048,326.02</b>

Notes: (1) From Table 8. (2) From Table 7. (3) From Table 13. (4) From Table 11. (5) Existing network cost less improved network cost. (6) From Table 14. From Table 12.

Table 16:

**FORWARD MISSISSIPPI PHASE 2 NET ANNUAL PROJECT BENEFIT DISCOUNTED AT SEVEN PERCENT PER ANNUM FOR NON-CARBON SAVINGS**

YEAR	PROJECT CONSTRUCTION COST	DISCOUNTED MAINTENANCE COST (1)	DISCOUNTED TOTAL C&M COST	EXISTING PASS VEH COST OF CARBON (2)	IMPROVED PASS VEH COST OF CARBON (3)	PASS VEH COST OF CARBON SAVINGS (4)	EXISTING TRUCK COST OF CARBON (2)	IMPROVED TRUCK COST OF CARBON (3)	TRUCK COST OF CARBON SAVINGS (4)	TOTAL NON-CARBON SAVINGS (5)	DISCOUNTED TOTAL NON-CARB SAVINGS (6)	TOTAL SOCIAL COST OF CARB SAVINGS (7)	DISCOUNTED TOTAL PROJECT BENEFIT (8)
2018	\$24,761,061.00	\$0.00	\$24,761,061.00		--	--	--	--	--	--	--	--	--
2019	\$0.00	\$50,928.58	\$50,928.58	\$1,172,519.35	\$767.86	\$1,239,367.56	\$3,867,582.64	\$2,519.00	\$3,865,063.64	\$20,028,843.12	\$20,028,843.12	\$5,104,431.20	\$25,133,274.32
2020	\$0.00	\$47,035.57	\$47,035.57	\$1,240,135.42	\$812.14	\$1,285,568.94	\$4,090,478.77	\$2,664.18	\$4,087,814.59	\$20,595,000.74	\$19,247,664.24	\$5,373,383.52	\$24,621,047.77
2021	\$0.00	\$41,082.69	\$41,082.69	\$1,286,381.08	\$842.43	\$1,333,485.25	\$4,242,508.35	\$2,763.20	\$4,239,745.15	\$21,074,038.52	\$18,406,881.41	\$5,573,230.40	\$23,980,111.80
2022	\$0.00	\$33,535.71	\$33,535.71	\$1,334,327.67	\$873.83	\$1,382,482.08	\$4,378,974.18	\$2,852.08	\$4,376,122.10	\$21,544,451.89	\$17,586,690.34	\$5,758,604.18	\$23,345,294.52
2023	\$0.00	\$25,584.23	\$25,584.23	\$1,383,355.91	\$905.93	\$1,457,692.55	\$5,253,145.16	\$2,956.14	\$5,250,189.02	\$22,758,865.53	\$17,362,629.54	\$6,707,881.57	\$24,070,511.11
2024	\$0.00	\$18,241.21	\$18,241.21	\$1,458,598.49	\$955.21	\$1,534,834.37	\$4,782,579.98	\$3,114.95	\$4,779,465.03	\$22,660,431.99	\$16,156,574.83	\$6,314,299.40	\$22,470,874.23
2025	\$0.00	\$12,154.89	\$12,154.89	\$1,535,789.58	\$1,005.76	\$1,588,681.47	\$5,828,297.55	\$3,279.80	\$5,825,017.75	\$24,084,877.12	\$16,048,770.58	\$7,413,699.22	\$23,462,469.80
2026	\$0.00	\$7,569.45	\$7,569.45	\$1,589,687.23	\$1,041.06	\$1,644,007.35	\$6,032,838.99	\$3,394.90	\$6,029,444.09	\$24,650,894.10	\$15,351,337.94	\$7,673,451.44	\$23,024,789.38
2027	\$0.00	\$4,405.49	\$4,405.49	\$1,645,048.41	\$1,077.31	\$1,700,831.25	\$6,242,934.51	\$3,513.13	\$6,239,421.38	\$25,229,613.70	\$14,683,864.88	\$7,940,252.63	\$22,624,117.51
2028	\$0.00	\$2,396.29	\$2,396.29	\$1,701,908.56	\$1,114.55	\$1,727,232.35	\$6,458,718.69	\$3,634.56	\$6,455,084.13	\$25,821,263.31	\$14,045,056.39	\$8,182,316.48	\$22,227,372.87
2029	\$0.00	\$1,218.15	\$1,218.15	\$1,728,346.90	\$1,131.86	\$1,808,913.80	\$6,559,052.38	\$3,691.02	\$6,555,361.36	\$26,222,302.33	\$13,330,088.83	\$8,364,275.15	\$21,694,363.98
2030	\$0.00	\$578.74	\$578.74	\$1,810,045.66	\$1,185.36	\$1,864,829.49	\$6,869,098.65	\$3,865.50	\$6,865,233.16	\$26,892,585.02	\$12,776,473.42	\$8,730,062.65	\$21,506,536.07
2031	\$0.00	\$256.97	\$256.97	\$1,866,014.85	\$1,222.02	\$1,922,063.96	\$7,081,501.63	\$3,985.02	\$7,077,516.61	\$27,443,761.62	\$12,185,358.37	\$8,999,580.56	\$21,184,938.93
2032	\$0.00	\$106.63	\$106.63	\$1,923,285.97	\$1,259.52	\$1,980,626.82	\$7,298,845.40	\$4,107.33	\$7,294,738.07	\$28,005,717.10	\$11,621,376.93	\$9,275,364.89	\$20,896,741.83
2033	\$0.00	\$41.35	\$41.35	\$1,981,886.35	\$1,297.90	\$2,040,545.20	\$7,521,233.70	\$4,232.47	\$7,517,001.23	\$28,578,410.03	\$11,083,200.13	\$9,557,546.43	\$20,640,746.56
2034	\$0.00	\$14.99	\$14.99	\$2,041,843.10	\$1,337.16	\$2,131,469.55	\$7,748,769.47	\$4,360.52	\$7,744,408.96	\$29,162,142.81	\$10,569,702.59	\$9,875,878.51	\$20,445,581.09
2035	\$0.00	\$5.08	\$5.08	\$2,132,806.72	\$1,396.73	\$2,194,624.48	\$8,093,975.96	\$4,554.78	\$8,089,421.19	\$29,899,121.37	\$10,127,866.85	\$10,284,045.67	\$20,411,912.52
2036	\$0.00	\$1.61	\$1.61	\$2,196,021.21	\$1,438.13	\$2,259,247.06	\$8,333,874.91	\$4,689.78	\$8,329,185.13	\$30,507,660.48	\$9,657,944.02	\$10,588,432.20	\$20,246,376.22
2037	\$0.00	\$0.48	\$0.48	\$2,260,685.20	\$1,480.48	\$2,325,347.64	\$8,579,274.66	\$4,827.87	\$8,574,446.79	\$31,128,030.41	\$9,209,660.98	\$10,899,794.43	\$20,109,455.41
2038	\$0.00	\$0.13	\$0.13	\$2,326,828.12	\$1,523.80	\$2,413,991.96	\$8,830,286.99	\$4,969.12	\$8,825,317.87	\$31,760,314.83	\$8,781,991.71	\$43,439,309.83	\$52,221,301.54
<b>TOTAL</b>	<b>\$24,761,061.00</b>	<b>\$245,158.23</b>	<b>\$25,006,219.23</b>	<b>\$34,615,515.76</b>	<b>\$22,669.04</b>	<b>\$68,035,843.13</b>	<b>\$128,093,972.58</b>	<b>\$73,975.35</b>	<b>\$128,019,997.23</b>	<b>\$518,048,326.02</b>	<b>\$278,261,977.09</b>	<b>\$196,055,840.36</b>	<b>\$474,317,817.45</b>

BENEFIT/COST (9) 18.97

Notes: (1) Maintenance cost per mile based on Mississippi Department of Transportation (2016): 2016 Annual Report, "Maintenance Expenditures by County, Fiscal Year 2016". The figure for Lawrence County was updated to 2017, using the Bureau of Labor Statistics online Inflation Calculator. All values are expressed in real dollars. A Discount rate of 7.0 percent per annum was applied to the annual cost of roadway maintenance. (2) From Table 9. (3) From Table 10. (4) Existing less improved. (5) From Table 15. (6) Discounted at 7.0 percent per annum. (7) A 3.0-percent per annum discount rate is built into the social cost of carbon values recommended in TIGER Benefit-Cost Analysis Resource Guide. (8) Discounted total non-carbon savings plus total social cost of carbon savings. (9) Discounted total project benefit/dicounted total construction and maintenance cost.