

INPUT: ROADWAYS

Constitution Avenue

Kimley-Horn					27 January 2022					
AH					TNM 2.5					

INPUT: ROADWAYS							Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA			
PROJECT/CONTRACT:	Constitution Avenue									
RUN:	Existing									

Roadway	Width	Points	No.	Coordinates (pavement)			Flow Control			Segment	
Name		Name		X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
EB Constitution Lanes	24.0	point13	13	3,230,724.8	1,377,835.8	0.00	Signal	0.00	50	Average	
		point12	12	3,230,980.5	1,377,831.0	0.00				Average	
		point11	11	3,231,236.2	1,377,836.8	0.00				Average	
		point10	10	3,231,492.0	1,377,839.6	0.00				Average	
		point9	9	3,231,747.8	1,377,844.2	0.00				Average	
		point8	8	3,232,003.5	1,377,850.5	0.00				Average	
		point7	7	3,232,259.2	1,377,854.0	0.00				Average	
		point6	6	3,232,514.8	1,377,857.5	0.00				Average	
		point5	5	3,232,770.5	1,377,860.5	0.00				Average	
		point4	4	3,233,026.2	1,377,864.4	0.00				Average	
WB Constitution Lanes	24.0	point3	3	3,233,282.0	1,377,868.4	0.00	Signal	0.00	50	Average	
		point2	2	3,233,537.8	1,377,870.5	0.00				Average	
		point1	1	3,233,793.5	1,377,874.2	0.00				Average	
		point14	14	3,233,805.5	1,377,916.6	0.00				Average	
		point15	15	3,233,549.8	1,377,913.0	0.00				Average	
		point16	16	3,233,294.0	1,377,911.4	0.00				Average	
		point17	17	3,233,038.2	1,377,907.5	0.00				Average	
		point18	18	3,232,782.5	1,377,903.2	0.00				Average	
		point19	19	3,232,526.8	1,377,902.2	0.00				Average	
		point20	20	3,232,271.0	1,377,898.6	0.00				Average	
		point21	21	3,232,015.2	1,377,894.8	0.00				Average	
point22	22	3,231,759.5	1,377,890.9	0.00	Average						
point23	23	3,231,503.8	1,377,885.4	0.00	Average						
point24	24	3,231,248.0	1,377,880.5	0.00	Average						
point25	25	3,230,992.2	1,377,876.5	0.00	Average						

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**Constitution Avenue**

		point26	26	3,230,736.5	1,377,878.2	0.00					
EB Constitution Turn Lane	14.0	point36	36	3,230,975.2	1,377,811.1	0.00					Average
		point35	35	3,231,231.0	1,377,814.2	0.00					Average
		point34	34	3,231,486.8	1,377,818.2	0.00					Average
		point33	33	3,231,742.5	1,377,823.8	0.00					Average
		point32	32	3,231,998.2	1,377,828.5	0.00					Average
		point31	31	3,232,254.0	1,377,831.0	0.00					Average
		point30	30	3,232,509.5	1,377,837.4	0.00					Average
		point29	29	3,232,553.5	1,377,833.0	0.00					Average
		point28	28	3,232,586.2	1,377,815.1	0.00					Average
		point27	27	3,232,608.8	1,377,786.4	0.00					
WB Constitution Turn Lane	14.0	point37	37	3,232,597.8	1,377,990.1	0.00					Average
		point38	38	3,232,575.2	1,377,955.4	0.00					Average
		point39	39	3,232,541.5	1,377,934.9	0.00					Average
		point40	40	3,232,505.2	1,377,922.8	0.00					Average
		point41	41	3,232,444.2	1,377,918.9	0.00					Average
		point42	42	3,232,325.0	1,377,916.9	0.00					Average
		point43	43	3,232,148.2	1,377,916.1	0.00					Average
		point44	44	3,231,946.2	1,377,912.6	0.00					Average
		point45	45	3,231,636.5	1,377,908.2	0.00					Average
		point46	46	3,231,580.2	1,377,920.4	0.00					
Akers SB to Const WB	14.0	point58	58	3,231,392.2	1,378,298.8	0.00					Average
		point57	57	3,231,442.2	1,378,188.0	0.00					Average
		point56	56	3,231,482.0	1,378,090.6	0.00					Average
		point55	55	3,231,500.5	1,378,021.6	0.00					Average
		point54	54	3,231,501.0	1,377,963.5	0.00					Average
		point53	53	3,231,488.5	1,377,935.6	0.00					Average
		point52	52	3,231,459.2	1,377,913.5	0.00					Average
		point51	51	3,231,422.0	1,377,903.9	0.00					Average
		point50	50	3,231,345.0	1,377,901.5	0.00					Average
		point49	49	3,231,047.2	1,377,896.2	0.00					Average
		point48	48	3,230,916.2	1,377,893.4	0.00					Average
		point47	47	3,230,737.0	1,377,895.2	0.00					
Akers Dr NB	14.0	point70	70	3,231,580.2	1,377,920.4	0.00					Average
		point69	69	3,231,562.0	1,378,001.0	0.00					Average
		point68	68	3,231,542.2	1,378,081.8	0.00					Average
		point67	67	3,231,509.0	1,378,171.8	0.00					Average
		point66	66	3,231,478.8	1,378,241.6	0.00					Average
		point65	65	3,231,447.0	1,378,299.2	0.00					Average

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		point64	64	3,231,419.5	1,378,347.5	0.00				Average
		point63	63	3,231,401.5	1,378,393.2	0.00				Average
		point62	62	3,231,380.5	1,378,460.4	0.00				Average
		point61	61	3,231,370.2	1,378,546.6	0.00				Average
		point60	60	3,231,368.2	1,378,774.4	0.00				Average
		point59	59	3,231,364.5	1,379,208.4	0.00				
Akers Dr SB	14.0	point83	83	3,231,333.2	1,379,210.8	0.00				Average
		point82	82	3,231,336.8	1,378,825.4	0.00				Average
		point81	81	3,231,340.0	1,378,607.0	0.00				Average
		point80	80	3,231,340.8	1,378,523.4	0.00				Average
		point79	79	3,231,349.8	1,378,429.1	0.00				Average
		point78	78	3,231,369.5	1,378,349.8	0.00				Average
		point77	77	3,231,406.5	1,378,296.2	0.00				Average
		point76	76	3,231,451.5	1,378,238.6	0.00				Average
		point75	75	3,231,488.8	1,378,178.4	0.00				Average
		point74	74	3,231,515.0	1,378,111.1	0.00				Average
		point73	73	3,231,536.0	1,378,038.6	0.00				Average
		point72	72	3,231,544.8	1,377,957.8	0.00				Average
		point71	71	3,231,549.2	1,377,898.5	0.00				
SB Marksheffel RT Lane	14.0	point92	92	3,232,608.2	1,379,339.9	0.00				Average
		point91	91	3,232,611.0	1,379,151.1	0.00				Average
		point90	90	3,232,610.5	1,378,915.2	0.00				Average
		point89	89	3,232,608.5	1,378,680.2	0.00				Average
		point88	88	3,232,600.8	1,378,494.8	0.00				Average
		point87	87	3,232,600.2	1,378,371.0	0.00				Average
		point86	86	3,232,601.0	1,378,174.6	0.00				Average
		point85	85	3,232,603.8	1,378,054.2	0.00				Average
		point84	84	3,232,597.8	1,377,990.1	0.00				
SB Marksheffel Lanes	24.0	point93	93	3,232,628.0	1,379,226.4	0.00	Signal	0.00	50	Average
		point94	94	3,232,628.0	1,378,971.6	0.00				Average
		point95	95	3,232,625.8	1,378,717.0	0.00				Average
		point96	96	3,232,624.2	1,378,462.2	0.00				Average
		point97	97	3,232,624.0	1,378,207.5	0.00				Average
		point98	98	3,232,627.0	1,377,952.9	0.00				
SB Marksheffel Lanes south of const	24.0	point102	102	3,232,627.0	1,377,827.2	0.00	Signal	0.00	50	Average
		point101	101	3,232,627.5	1,377,572.5	0.00				Average
		point100	100	3,232,628.8	1,377,317.8	0.00				Average
		point99	99	3,232,638.0	1,377,063.2	0.00				
NB Marksheffel Lanes	24.0	point103	103	3,232,715.8	1,377,061.2	0.00	Signal	0.00	50	Average

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		point104	104	3,232,710.5	1,377,316.0	0.00				Average
		point105	105	3,232,706.5	1,377,570.6	0.00				Average
		point106	106	3,232,705.0	1,377,825.4	0.00				
NB Marksheffel Lanes north of Const	24.0	point112	112	3,232,704.0	1,377,940.9	0.00	Signal	0.00	50	Average
		point111	111	3,232,702.2	1,378,195.6	0.00				Average
		point110	110	3,232,701.2	1,378,450.2	0.00				Average
		point109	109	3,232,708.2	1,378,705.0	0.00				Average
		point108	108	3,232,712.0	1,378,959.6	0.00				Average
		point107	107	3,232,711.5	1,379,214.4	0.00				
EB Constitution LT Lane	14.0	point116	116	3,232,040.2	1,377,863.6	0.00				Average
		point115	115	3,232,151.8	1,377,869.8	0.00				Average
		point114	114	3,232,381.8	1,377,872.6	0.00				Average
		point113	113	3,232,584.8	1,377,877.0	0.00				
WB Constitution LT Lane	14.0	point120	120	3,233,250.2	1,377,903.1	0.00				Average
		point119	119	3,233,119.2	1,377,895.2	0.00				Average
		point118	118	3,232,963.8	1,377,892.1	0.00				Average
		point117	117	3,232,746.2	1,377,891.9	0.00				
NB Marksheffel LT Lane	14.0	point121	121	3,232,698.2	1,377,065.4	0.00				Average
		point122	122	3,232,674.0	1,377,315.6	0.00				Average
		point123	123	3,232,671.5	1,377,570.4	0.00				Average
		point124	124	3,232,668.5	1,377,825.1	0.00				
SB Marksheffel LT Lane	14.0	point125	125	3,232,643.2	1,378,959.8	0.00				Average
		point126	126	3,232,662.0	1,378,719.0	0.00				Average
		point127	127	3,232,658.2	1,378,464.2	0.00				Average
		point128	128	3,232,659.0	1,378,209.5	0.00				Average
		point129	129	3,232,660.8	1,377,954.8	0.00				
NB Marksheffel to EB Constitution	14.0	point144	144	3,232,722.2	1,377,442.4	0.00				Average
		point143	143	3,232,726.8	1,377,504.8	0.00				Average
		point142	142	3,232,723.2	1,377,699.2	0.00				Average
		point141	141	3,232,723.8	1,377,750.8	0.00				Average
		point140	140	3,232,733.5	1,377,785.4	0.00				Average
		point139	139	3,232,752.0	1,377,815.0	0.00				Average
		point138	138	3,232,783.8	1,377,836.4	0.00				Average
		point137	137	3,232,822.8	1,377,842.6	0.00				Average
		point136	136	3,233,027.5	1,377,844.4	0.00				Average
		point135	135	3,233,301.5	1,377,847.8	0.00				Average
		point134	134	3,233,537.5	1,377,850.8	0.00				Average
		point133	133	3,233,634.8	1,377,850.8	0.00				Average
		point132	132	3,233,671.2	1,377,841.0	0.00				Average

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		point131	131	3,233,702.8	1,377,820.2	0.00				Average
		point130	130	3,233,722.5	1,377,793.4	0.00				
WB Constitution to NB Marksheffel	14.0	point157	157	3,233,676.5	1,377,933.1	0.00				Average
		point156	156	3,233,371.0	1,377,929.5	0.00				Average
		point155	155	3,233,240.8	1,377,927.5	0.00				Average
		point154	154	3,233,021.8	1,377,925.5	0.00				Average
		point153	153	3,232,873.8	1,377,924.2	0.00				Average
		point152	152	3,232,808.5	1,377,928.6	0.00				Average
		point151	151	3,232,775.5	1,377,940.1	0.00				Average
		point150	150	3,232,744.8	1,377,968.5	0.00				Average
		point149	149	3,232,725.8	1,378,006.2	0.00				Average
		point148	148	3,232,722.8	1,378,066.1	0.00				Average
		point147	147	3,232,724.5	1,378,238.0	0.00				Average
		point146	146	3,232,723.5	1,378,409.6	0.00				Average
		point145	145	3,232,721.5	1,378,543.1	0.00				
SB Marksheffel Turn Lane	14.0	point158	158	3,232,617.2	1,377,502.0	0.00				Average
		point159	159	3,232,609.8	1,377,405.0	0.00				Average
		point160	160	3,232,618.2	1,377,111.0	0.00				

INPUT: TRAFFIC FOR LAeq1h Volumes

Constitution Avenue

Kimley-Horn		27 January 2022										
AH		TNM 2.5										
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:		Constitution Avenue										
RUN:		Existing										
Roadway	Points											
Name	Name	No.	Segment		MTrucks		HTrucks		Buses		Motorcycles	
			Autos		V	S	V	S	V	S	V	S
			V	S	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
EB Constitution Lanes	point13	13	947	50	10	50	10	50	0	0	0	0
	point12	12	947	50	10	50	10	50	0	0	0	0
	point11	11	947	50	10	50	10	50	0	0	0	0
	point10	10	947	50	10	50	10	50	0	0	0	0
	point9	9	947	50	10	50	10	50	0	0	0	0
	point8	8	947	50	10	50	10	50	0	0	0	0
	point7	7	947	50	10	50	10	50	0	0	0	0
	point6	6	947	50	10	50	10	50	0	0	0	0
	point5	5	947	50	10	50	10	50	0	0	0	0
	point4	4	947	50	10	50	10	50	0	0	0	0
WB Constitution Lanes	point3	3	947	50	10	50	10	50	0	0	0	0
	point2	2	947	50	10	50	10	50	0	0	0	0
	point1	1										
	point14	14	961	50	10	50	10	50	0	0	0	0
	point15	15	961	50	10	50	10	50	0	0	0	0
	point16	16	961	50	10	50	10	50	0	0	0	0
	point17	17	961	50	10	50	10	50	0	0	0	0
	point18	18	961	50	10	50	10	50	0	0	0	0
	point19	19	961	50	10	50	10	50	0	0	0	0
point20	20	961	50	10	50	10	50	0	0	0	0	
point21	21	961	50	10	50	10	50	0	0	0	0	
point22	22	961	50	10	50	10	50	0	0	0	0	
point23	23	961	50	10	50	10	50	0	0	0	0	

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point24	24	961	50	10	50	10	50	0	0	0	0
	point25	25	961	50	10	50	10	50	0	0	0	0
	point26	26										
EB Constitution Turn Lane	point36	36	0	0	0	0	0	0	0	0	0	0
	point35	35	0	0	0	0	0	0	0	0	0	0
	point34	34	0	0	0	0	0	0	0	0	0	0
	point33	33	0	0	0	0	0	0	0	0	0	0
	point32	32	0	0	0	0	0	0	0	0	0	0
	point31	31	0	0	0	0	0	0	0	0	0	0
	point30	30	0	0	0	0	0	0	0	0	0	0
	point29	29	0	0	0	0	0	0	0	0	0	0
	point28	28	0	0	0	0	0	0	0	0	0	0
	point27	27										
WB Constitution Turn Lane	point37	37	0	0	0	0	0	0	0	0	0	0
	point38	38	0	0	0	0	0	0	0	0	0	0
	point39	39	0	0	0	0	0	0	0	0	0	0
	point40	40	0	0	0	0	0	0	0	0	0	0
	point41	41	0	0	0	0	0	0	0	0	0	0
	point42	42	0	0	0	0	0	0	0	0	0	0
	point43	43	0	0	0	0	0	0	0	0	0	0
	point44	44	0	0	0	0	0	0	0	0	0	0
	point45	45	0	0	0	0	0	0	0	0	0	0
	point46	46										
Akers SB to Const WB	point58	58	0	0	0	0	0	0	0	0	0	0
	point57	57	0	0	0	0	0	0	0	0	0	0
	point56	56	0	0	0	0	0	0	0	0	0	0
	point55	55	0	0	0	0	0	0	0	0	0	0
	point54	54	0	0	0	0	0	0	0	0	0	0
	point53	53	0	0	0	0	0	0	0	0	0	0
	point52	52	0	0	0	0	0	0	0	0	0	0
	point51	51	0	0	0	0	0	0	0	0	0	0
	point50	50	0	0	0	0	0	0	0	0	0	0
	point49	49	0	0	0	0	0	0	0	0	0	0
	point48	48	0	0	0	0	0	0	0	0	0	0
	point47	47										
Akers Dr NB	point70	70	68	35	0	0	0	0	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point69	69	68	35	0	0	0	0	0	0	0	0
	point68	68	68	35	0	0	0	0	0	0	0	0
	point67	67	68	35	0	0	0	0	0	0	0	0
	point66	66	68	35	0	0	0	0	0	0	0	0
	point65	65	68	35	0	0	0	0	0	0	0	0
	point64	64	68	35	0	0	0	0	0	0	0	0
	point63	63	68	35	0	0	0	0	0	0	0	0
	point62	62	68	35	0	0	0	0	0	0	0	0
	point61	61	68	35	0	0	0	0	0	0	0	0
	point60	60	68	35	0	0	0	0	0	0	0	0
	point59	59										
Akers Dr SB	point83	83	88	35	0	0	0	0	0	0	0	0
	point82	82	88	35	0	0	0	0	0	0	0	0
	point81	81	88	35	0	0	0	0	0	0	0	0
	point80	80	88	35	0	0	0	0	0	0	0	0
	point79	79	88	35	0	0	0	0	0	0	0	0
	point78	78	88	35	0	0	0	0	0	0	0	0
	point77	77	88	35	0	0	0	0	0	0	0	0
	point76	76	88	35	0	0	0	0	0	0	0	0
	point75	75	88	35	0	0	0	0	0	0	0	0
	point74	74	88	35	0	0	0	0	0	0	0	0
	point73	73	88	35	0	0	0	0	0	0	0	0
	point72	72	88	35	0	5	0	0	0	0	0	0
	point71	71										
SB Marksheffel RT Lane	point92	92	0	0	0	0	0	0	0	0	0	0
	point91	91	0	0	0	0	0	0	0	0	0	0
	point90	90	0	0	0	0	0	0	0	0	0	0
	point89	89	0	0	0	0	0	0	0	0	0	0
	point88	88	0	0	0	0	0	0	0	0	0	0
	point87	87	0	0	0	0	0	0	0	0	0	0
	point86	86	0	0	0	0	0	0	0	0	0	0
	point85	85	0	0	0	0	0	0	0	0	0	0
	point84	84										
SB Marksheffel Lanes	point93	93	1064	50	10	50	10	50	0	0	0	0
	point94	94	1064	50	10	50	10	50	0	0	0	0
	point95	95	1064	50	10	50	10	50	0	0	0	0



**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point96	96	1064	50	10	50	10	50	0	0	0	0
	point97	97	1064	50	10	50	10	50	0	0	0	0
	point98	98										
SB Marksheffel Lanes south of const	point102	102	1120	50	10	50	10	50	0	0	0	0
	point101	101	1120	50	10	50	10	50	0	0	0	0
	point100	100	1120	50	10	50	10	50	0	0	0	0
	point99	99										
NB Marksheffel Lanes	point103	103	1680	50	20	50	20	50	0	0	0	0
	point104	104	1680	50	20	50	20	50	0	0	0	0
	point105	105	1680	50	20	50	20	50	0	0	0	0
	point106	106										
NB Marksheffel Lanes north of Const	point112	112	1652	50	20	50	20	50	0	0	0	0
	point111	111	1652	50	20	50	20	50	0	0	0	0
	point110	110	1652	50	20	50	20	50	0	0	0	0
	point109	109	1652	50	20	50	20	50	0	0	0	0
	point108	108	1652	50	20	50	20	50	0	0	0	0
	point107	107										
EB Constitution LT Lane	point116	116	0	0	0	0	0	0	0	0	0	0
	point115	115	0	0	0	0	0	0	0	0	0	0
	point114	114	0	0	0	0	0	0	0	0	0	0
	point113	113										
WB Constitution LT Lane	point120	120	0	0	0	0	0	0	0	0	0	0
	point119	119	0	0	0	0	0	0	0	0	0	0
	point118	118	0	0	0	0	0	0	0	0	0	0
	point117	117										
NB Marksheffel LT Lane	point121	121	0	0	0	0	0	0	0	0	0	0
	point122	122	0	0	0	0	0	0	0	0	0	0
	point123	123	0	0	0	0	0	0	0	0	0	0
	point124	124										
SB Marksheffel LT Lane	point125	125	0	0	0	0	0	0	0	0	0	0
	point126	126	0	0	0	0	0	0	0	0	0	0
	point127	127	0	0	0	0	0	0	0	0	0	0
	point128	128	0	0	0	0	0	0	0	0	0	0
	point129	129										
NB Marksheffel to EB Constitution	point144	144	0	0	0	0	0	0	0	0	0	0
	point143	143	0	0	0	0	0	0	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point142	142	0	0	0	0	0	0	0	0	0	0
	point141	141	0	0	0	0	0	0	0	0	0	0
	point140	140	0	0	0	0	0	0	0	0	0	0
	point139	139	0	0	0	0	0	0	0	0	0	0
	point138	138	0	0	0	0	0	0	0	0	0	0
	point137	137	0	0	0	0	0	0	0	0	0	0
	point136	136	0	0	0	0	0	0	0	0	0	0
	point135	135	0	0	0	0	0	0	0	0	0	0
	point134	134	0	0	0	0	0	0	0	0	0	0
	point133	133	0	0	0	0	0	0	0	0	0	0
	point132	132	0	0	0	0	0	0	0	0	0	0
	point131	131	0	0	0	0	0	0	0	0	0	0
	point130	130										
WB Constitution to NB Marksheffel	point157	157	0	0	0	0	0	0	0	0	0	0
	point156	156	0	0	0	0	0	0	0	0	0	0
	point155	155	0	0	0	0	0	0	0	0	0	0
	point154	154	0	0	0	0	0	0	0	0	0	0
	point153	153	0	0	0	0	0	0	0	0	0	0
	point152	152	0	0	0	0	0	0	0	0	0	0
	point151	151	0	0	0	0	0	0	0	0	0	0
	point150	150	0	0	0	0	0	0	0	0	0	0
	point149	149	0	0	0	0	0	0	0	0	0	0
	point148	148	0	0	0	0	0	0	0	0	0	0
	point147	147	0	0	0	0	0	0	0	0	0	0
	point146	146	0	0	0	0	0	0	0	0	0	0
	point145	145										
SB Marksheffel Turn Lane	point158	158	0	0	0	0	0	0	0	0	0	0
	point159	159	0	0	0	0	0	0	0	0	0	0
	point160	160										

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

Kimley-Horn		27 January 2022													
AH		TNM 2.5													
INPUT: TRAFFIC FOR LAeq1h Volumes															
PROJECT/CONTRACT:		Constitution Avenue													
RUN:		Existing													
<b>Roadway</b>		<b>Points</b>													
<b>Name</b>		<b>Name</b>	<b>No.</b>	<b>Segment</b>		<b>User 1</b>		<b>User 2</b>		<b>User 3</b>		<b>User 4</b>		<b>&lt;unknown&gt;</b>	
				<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>
				veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
EB Constitution Lanes		point13	13												
		point12	12												
		point11	11												
		point10	10												
		point9	9												
		point8	8												
		point7	7												
		point6	6												
		point5	5												
		point4	4												
		point3	3												
		point2	2												
		point1	1												
WB Constitution Lanes		point14	14												
		point15	15												
		point16	16												
		point17	17												
		point18	18												
		point19	19												
		point20	20												
		point21	21												
		point22	22												
		point23	23												

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point24	24											
	point25	25											
	point26	26											
EB Constitution Turn Lane	point36	36											
	point35	35											
	point34	34											
	point33	33											
	point32	32											
	point31	31											
	point30	30											
	point29	29											
	point28	28											
	point27	27											
WB Constitution Turn Lane	point37	37											
	point38	38											
	point39	39											
	point40	40											
	point41	41											
	point42	42											
	point43	43											
	point44	44											
	point45	45											
	point46	46											
Akers SB to Const WB	point58	58											
	point57	57											
	point56	56											
	point55	55											
	point54	54											
	point53	53											
	point52	52											
	point51	51											
	point50	50											
	point49	49											
	point48	48											
	point47	47											
Akers Dr NB	point70	70											

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point69	69											
	point68	68											
	point67	67											
	point66	66											
	point65	65											
	point64	64											
	point63	63											
	point62	62											
	point61	61											
	point60	60											
	point59	59											
Akers Dr SB	point83	83											
	point82	82											
	point81	81											
	point80	80											
	point79	79											
	point78	78											
	point77	77											
	point76	76											
	point75	75											
	point74	74											
	point73	73											
	point72	72											
	point71	71											
SB Marksheffel RT Lane	point92	92											
	point91	91											
	point90	90											
	point89	89											
	point88	88											
	point87	87											
	point86	86											
	point85	85											
	point84	84											
SB Marksheffel Lanes	point93	93											
	point94	94											
	point95	95											

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point96	96											
	point97	97											
	point98	98											
SB Marksheffel Lanes south of const	point102	102											
	point101	101											
	point100	100											
	point99	99											
NB Marksheffel Lanes	point103	103											
	point104	104											
	point105	105											
	point106	106											
NB Marksheffel Lanes north of Const	point112	112											
	point111	111											
	point110	110											
	point109	109											
	point108	108											
	point107	107											
EB Constitution LT Lane	point116	116											
	point115	115											
	point114	114											
	point113	113											
WB Constitution LT Lane	point120	120											
	point119	119											
	point118	118											
	point117	117											
NB Marksheffel LT Lane	point121	121											
	point122	122											
	point123	123											
	point124	124											
SB Marksheffel LT Lane	point125	125											
	point126	126											
	point127	127											
	point128	128											
	point129	129											
NB Marksheffel to EB Constitution	point144	144											
	point143	143											

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point142	142											
	point141	141											
	point140	140											
	point139	139											
	point138	138											
	point137	137											
	point136	136											
	point135	135											
	point134	134											
	point133	133											
	point132	132											
	point131	131											
	point130	130											
WB Constitution to NB Marksheffel	point157	157											
	point156	156											
	point155	155											
	point154	154											
	point153	153											
	point152	152											
	point151	151											
	point150	150											
	point149	149											
	point148	148											
	point147	147											
	point146	146											
	point145	145											
SB Marksheffel Turn Lane	point158	158											
	point159	159											
	point160	160											

INPUT: RECEIVERS

Constitution Avenue

Kimley-Horn												
AH												
						27 January 2022						
						TNM 2.5						

INPUT: RECEIVERS

PROJECT/CONTRACT: Constitution Avenue

RUN: Existing

Receiver											
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active
			X	Y	Z	above	Existing	Impact Criteria		NR	in
						Ground	LAeq1h	LAeq1h	Sub'l	Goal	Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
125	1	1	3,231,840.0	1,377,740.0	0.00	4.92	0.00	66	10.0	8.0	Y
126	2	1	3,231,880.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
127	3	1	3,231,920.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
128	4	1	3,231,950.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
129	5	1	3,232,010.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
130	6	1	3,232,040.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
131	7	1	3,232,080.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
132	8	1	3,232,110.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
133	9	1	3,232,120.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
134	10	1	3,232,120.0	1,377,610.0	0.00	4.92	0.00	66	10.0	8.0	Y
135	11	1	3,232,120.0	1,377,550.0	0.00	4.92	0.00	66	10.0	8.0	Y
136	12	1	3,232,120.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
137	13	1	3,232,060.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
138	14	1	3,232,050.0	1,377,540.0	0.00	4.92	0.00	66	10.0	8.0	Y
139	15	1	3,232,050.0	1,377,600.0	0.00	4.92	0.00	66	10.0	8.0	Y
140	16	1	3,232,050.0	1,377,660.0	0.00	4.92	0.00	66	10.0	8.0	Y
141	17	1	3,232,040.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
142	18	1	3,232,000.0	1,377,710.0	0.00	4.92	0.00	66	10.0	8.0	Y
143	19	1	3,231,960.0	1,377,710.0	0.00	4.92	0.00	66	10.0	8.0	Y
144	20	1	3,231,920.0	1,377,710.0	0.00	4.92	0.00	66	10.0	8.0	Y
145	21	1	3,231,910.0	1,377,660.0	0.00	4.92	0.00	66	10.0	8.0	Y
146	22	1	3,231,910.0	1,377,600.0	0.00	4.92	0.00	66	10.0	8.0	Y



**INPUT: RECEIVERS**

**Constitution Avenue**

147	23	1	3,231,910.0	1,377,540.0	0.00	4.92	0.00	66	10.0	8.0	Y
148	24	1	3,231,900.0	1,377,480.0	0.00	4.92	0.00	66	10.0	8.0	Y
149	25	1	3,231,840.0	1,377,480.0	0.00	4.92	0.00	66	10.0	8.0	Y
150	26	1	3,231,840.0	1,377,540.0	0.00	4.92	0.00	66	10.0	8.0	Y
151	27	1	3,231,840.0	1,377,580.0	0.00	4.92	0.00	66	10.0	8.0	Y
152	28	1	3,231,840.0	1,377,610.0	0.00	4.92	0.00	66	10.0	8.0	Y
153	29	1	3,231,840.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
154	30	1	3,232,310.0	1,377,770.0	0.00	4.92	0.00	66	10.0	8.0	Y
155	31	1	3,232,340.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
156	32	1	3,232,380.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
157	33	1	3,232,440.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
158	34	1	3,232,460.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
159	35	1	3,232,500.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
160	36	1	3,232,530.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
161	37	1	3,232,540.0	1,377,730.0	0.00	4.92	0.00	66	10.0	8.0	Y
162	38	1	3,232,550.0	1,377,680.0	0.00	4.92	0.00	66	10.0	8.0	Y
163	39	1	3,232,550.0	1,377,610.0	0.00	4.92	0.00	66	10.0	8.0	Y
164	40	1	3,232,550.0	1,377,530.0	0.00	4.92	0.00	66	10.0	8.0	Y
165	41	1	3,232,550.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
166	42	1	3,232,490.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
167	43	1	3,232,480.0	1,377,570.0	0.00	4.92	0.00	66	10.0	8.0	Y
168	44	1	3,232,480.0	1,377,620.0	0.00	4.92	0.00	66	10.0	8.0	Y
169	45	1	3,232,470.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
170	46	1	3,232,400.0	1,377,710.0	0.00	4.92	0.00	66	10.0	8.0	Y
171	47	1	3,232,340.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
172	48	1	3,232,330.0	1,377,660.0	0.00	4.92	0.00	66	10.0	8.0	Y
173	49	1	3,232,330.0	1,377,620.0	0.00	4.92	0.00	66	10.0	8.0	Y
174	50	1	3,232,330.0	1,377,570.0	0.00	4.92	0.00	66	10.0	8.0	Y
175	51	1	3,232,330.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
176	52	1	3,232,270.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
177	53	1	3,232,260.0	1,377,540.0	0.00	4.92	0.00	66	10.0	8.0	Y
178	54	1	3,232,260.0	1,377,600.0	0.00	4.92	0.00	66	10.0	8.0	Y
179	55	1	3,232,260.0	1,377,690.0	0.00	4.92	0.00	66	10.0	8.0	Y
180	56	1	3,232,270.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
181	57	1	3,231,840.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
182	58	1	3,231,840.0	1,377,610.0	0.00	14.92	0.00	66	10.0	8.0	Y

**INPUT: RECEIVERS**

**Constitution Avenue**

183	59	1	3,231,840.0	1,377,580.0	0.00	14.92	0.00	66	10.0	8.0	Y
184	60	1	3,231,840.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
185	61	1	3,231,840.0	1,377,480.0	0.00	14.92	0.00	66	10.0	8.0	Y
186	62	1	3,231,900.0	1,377,480.0	0.00	14.92	0.00	66	10.0	8.0	Y
187	63	1	3,231,910.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
188	64	1	3,231,910.0	1,377,600.0	0.00	14.92	0.00	66	10.0	8.0	Y
189	65	1	3,231,910.0	1,377,660.0	0.00	14.92	0.00	66	10.0	8.0	Y
190	66	1	3,231,920.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y
191	67	1	3,231,960.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y
192	68	1	3,232,000.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y
193	69	1	3,232,040.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
194	70	1	3,232,050.0	1,377,660.0	0.00	14.92	0.00	66	10.0	8.0	Y
195	71	1	3,232,050.0	1,377,600.0	0.00	14.92	0.00	66	10.0	8.0	Y
196	72	1	3,232,050.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
197	73	1	3,232,060.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
198	74	1	3,232,120.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
199	75	1	3,232,120.0	1,377,550.0	0.00	14.92	0.00	66	10.0	8.0	Y
200	76	1	3,232,120.0	1,377,610.0	0.00	14.92	0.00	66	10.0	8.0	Y
201	77	1	3,232,120.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
202	78	1	3,232,110.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
203	79	1	3,232,080.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
204	80	1	3,232,040.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
205	81	1	3,232,010.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
206	82	1	3,231,950.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
207	83	1	3,231,920.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
208	84	1	3,232,270.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
209	85	1	3,232,260.0	1,377,690.0	0.00	14.92	0.00	66	10.0	8.0	Y
210	86	1	3,232,260.0	1,377,600.0	0.00	14.92	0.00	66	10.0	8.0	Y
211	87	1	3,232,260.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
212	88	1	3,232,270.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
213	89	1	3,232,330.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
214	90	1	3,232,330.0	1,377,570.0	0.00	14.92	0.00	66	10.0	8.0	Y
215	91	1	3,232,330.0	1,377,620.0	0.00	14.92	0.00	66	10.0	8.0	Y
216	92	1	3,232,330.0	1,377,660.0	0.00	14.92	0.00	66	10.0	8.0	Y
217	93	1	3,232,340.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
218	94	1	3,232,400.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y

**INPUT: RECEIVERS**

**Constitution Avenue**

219	95	1	3,232,470.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
220	96	1	3,232,480.0	1,377,620.0	0.00	14.92	0.00	66	10.0	8.0	Y
221	97	1	3,232,480.0	1,377,570.0	0.00	14.92	0.00	66	10.0	8.0	Y
222	98	1	3,232,490.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
223	99	1	3,232,550.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
224	100	1	3,232,550.0	1,377,530.0	0.00	14.92	0.00	66	10.0	8.0	Y
225	101	1	3,232,550.0	1,377,610.0	0.00	14.92	0.00	66	10.0	8.0	Y
226	102	1	3,232,550.0	1,377,680.0	0.00	14.92	0.00	66	10.0	8.0	Y
227	103	1	3,232,540.0	1,377,730.0	0.00	14.92	0.00	66	10.0	8.0	Y
228	104	1	3,232,530.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
229	105	1	3,232,500.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
230	106	1	3,232,460.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
231	107	1	3,232,440.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
232	108	1	3,232,380.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
233	109	1	3,232,340.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
234	111	1	3,232,310.0	1,377,770.0	0.00	14.92	0.00	66	10.0	8.0	Y
235	112	1	3,231,840.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
236	113	1	3,231,840.0	1,377,610.0	0.00	24.92	0.00	66	10.0	8.0	Y
237	114	1	3,231,840.0	1,377,580.0	0.00	24.92	0.00	66	10.0	8.0	Y
238	115	1	3,231,840.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
239	116	1	3,231,840.0	1,377,480.0	0.00	24.92	0.00	66	10.0	8.0	Y
240	117	1	3,231,900.0	1,377,480.0	0.00	24.92	0.00	66	10.0	8.0	Y
241	118	1	3,231,910.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
242	119	1	3,231,910.0	1,377,600.0	0.00	24.92	0.00	66	10.0	8.0	Y
243	120	1	3,231,910.0	1,377,660.0	0.00	24.92	0.00	66	10.0	8.0	Y
244	121	1	3,231,960.0	1,377,710.0	0.00	24.92	0.00	66	10.0	8.0	Y
245	122	1	3,232,000.0	1,377,710.0	0.00	24.92	0.00	66	10.0	8.0	Y
246	123	1	3,232,040.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
247	124	1	3,232,050.0	1,377,660.0	0.00	24.92	0.00	66	10.0	8.0	Y
248	125	1	3,232,050.0	1,377,600.0	0.00	24.92	0.00	66	10.0	8.0	Y
249	126	1	3,232,050.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
250	127	1	3,232,060.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
251	128	1	3,232,120.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
252	129	1	3,232,120.0	1,377,550.0	0.00	24.92	0.00	66	10.0	8.0	Y
253	130	1	3,232,120.0	1,377,610.0	0.00	24.92	0.00	66	10.0	8.0	Y
254	131	1	3,232,120.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y

**INPUT: RECEIVERS****Constitution Avenue**

255	132	1	3,232,110.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
256	133	1	3,232,080.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
257	134	1	3,232,040.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
258	135	1	3,232,010.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
259	136	1	3,231,950.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
260	137	1	3,232,270.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
261	138	1	3,232,260.0	1,377,690.0	0.00	24.92	0.00	66	10.0	8.0	Y
262	139	1	3,232,260.0	1,377,600.0	0.00	24.92	0.00	66	10.0	8.0	Y
263	140	1	3,232,260.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
264	141	1	3,232,270.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
265	142	1	3,232,330.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
266	143	1	3,232,340.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
267	144	1	3,232,470.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
268	145	1	3,232,490.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
269	146	1	3,232,550.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
270	147	1	3,232,550.0	1,377,530.0	0.00	24.92	0.00	66	10.0	8.0	Y
271	148	1	3,232,550.0	1,377,610.0	0.00	24.92	0.00	66	10.0	8.0	Y
272	149	1	3,232,550.0	1,377,680.0	0.00	24.92	0.00	66	10.0	8.0	Y
273	150	1	3,232,540.0	1,377,730.0	0.00	24.92	0.00	66	10.0	8.0	Y
274	151	1	3,232,530.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
275	152	1	3,232,500.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
276	153	1	3,232,460.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
277	154	1	3,232,440.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
278	155	1	3,232,380.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
279	156	1	3,232,340.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
280	157	1	3,232,310.0	1,377,770.0	0.00	24.92	0.00	66	10.0	8.0	Y

INPUT: BARRIERS

Constitution Avenue

Kimley-Horn	27 January 2022
AH	TNM 2.5

INPUT: BARRIERS

PROJECT/CONTRACT: Constitution Avenue

RUN: Existing

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	\$ per	\$ per	Top	Run:Rise	\$ per			X	Y	Z	at	Seg	Ht	Perturbs	On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
		ft	ft	Area	Vol.	ft	ft:ft	Length			ft	ft	ft	ft	ment				tions?
				\$/sq ft	\$/cu yd			\$/ft											
<< This table is empty >>																			

**INPUT: BUILDING ROWS**

**Constitution Avenue**

Kimley-Horn			27 January 2022			
AH			TNM 2.5			
INPUT: BUILDING ROWS						
PROJECT/CONTRACT:		Constitution Avenue				
RUN:		Existing				
Building Row			Points			
Name	Average Height	Building Percent	No.	Coordinates (ground)		
	ft	%		X	Y	Z
				ft	ft	ft
<< This table is empty >>						

**INPUT: TERRAIN LINES**

Kimley-Horn				27 January 2022
AH				TNM 2.5
<b>INPUT: TERRAIN LINES</b>				
<b>PROJECT/CONTRACT:</b>		Constitution Avenue		
<b>RUN:</b>		Existing		
<b>Terrain Line</b>	<b>Points</b>			
<b>Name</b>	<b>No.</b>	<b>Coordinates (ground)</b>		
		<b>X</b>	<b>Y</b>	<b>Z</b>
		ft	ft	ft
<< This table is empty >>				

**Constitution Avenue**

**INPUT: GROUND ZONES**

**Constitution Avenue**

Kimley-Horn AH			27 January 2022 TNM 2.5		
INPUT: GROUND ZONES					
PROJECT/CONTRACT:		Constitution Avenue			
RUN:		Existing			
Ground Zone			Points		
Name	Type	Flow Resistivity	No.	Coordinates	
		cgs rayls		X	Y
				ft	ft
Ground Zone1	Pavement	20000	15	3,230,793.0	1,377,906.5
			16	3,231,422.8	1,377,914.9
			17	3,231,472.8	1,377,939.9
			18	3,231,472.8	1,378,010.8
			19	3,231,406.0	1,378,223.5
			20	3,231,335.2	1,378,340.2
			21	3,231,326.8	1,378,452.9
			22	3,231,406.0	1,378,457.0
			23	3,231,435.2	1,378,361.1
			24	3,231,518.8	1,378,215.1
			25	3,231,568.8	1,378,056.6
			26	3,231,589.5	1,377,960.8
			27	3,231,602.0	1,377,931.6
			57	3,231,960.8	1,377,927.4
			56	3,232,498.8	1,377,939.9
			55	3,232,557.0	1,377,969.1
			54	3,232,586.2	1,378,023.4
			53	3,232,586.2	1,378,628.0
			52	3,232,598.8	1,379,070.1
			51	3,232,723.8	1,379,061.8
			50	3,232,736.2	1,378,444.5
			49	3,232,736.2	1,378,040.0
			48	3,232,761.5	1,377,977.5



**INPUT: GROUND ZONES****Constitution Avenue**

			47	3,232,803.0	1,377,939.9
			46	3,233,232.8	1,377,944.1
			45	3,233,578.8	1,377,944.1
			38	3,233,583.0	1,377,844.0
			43	3,233,299.2	1,377,835.6
			42	3,232,824.0	1,377,827.4
			41	3,232,761.5	1,377,810.6
			40	3,232,740.5	1,377,764.8
			39	3,232,740.5	1,377,189.2
			38	3,232,598.8	1,377,201.8
			37	3,232,594.5	1,377,735.6
			36	3,232,590.5	1,377,785.6
			28	3,232,544.5	1,377,819.0
			29	3,232,457.0	1,377,814.8
			30	3,231,681.2	1,377,802.2
			31	3,230,809.8	1,377,794.0

**INPUT: TREE ZONES**

**Constitution Avenue**

Kimley-Horn				27 January 2022	
AH				TNM 2.5	
<b>INPUT: TREE ZONES</b>					
<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>				
<b>RUN:</b>	<b>Existing</b>				
<b>Tree Zone</b>		<b>Points</b>			
<b>Name</b>	<b>Average</b>	<b>No.</b>	<b>Coordinates (ground)</b>		
	<b>Height</b>		<b>X</b>	<b>Y</b>	<b>Z</b>
	ft		ft	ft	ft
<< This table is empty >>					

**INPUT: CONTOUR ZONES**

**Constitution Avenue**

<b>Kimley-Horn</b>				<b>27 January 2022</b>	
<b>AH</b>				<b>TNM 2.5</b>	
<b>INPUT: CONTOUR ZONES</b>					
<b>PROJECT/CONTRACT:</b>		<b>Constitution Avenue</b>			
<b>RUN:</b>		<b>Existing</b>			
<b>Contour Zone</b>				<b>Points</b>	
<b>Name</b>	<b>Grid Height</b>	<b>Minimum Grid Spacing</b>	<b>Contour Tolerance</b>	<b>No.</b>	<b>Coordinates</b>
					<b>X Y</b>
	ft	ft	dB		ft ft
<b>&lt;&lt; This table is empty &gt;&gt;</b>					

**INPUT: RECEIVER ADJUSTMENT FACTORS**

**Constitution Avenue**

Kimley-Horn AH			27 January 2022 TNM 2.5		
<b>INPUT: RECEIVER ADJUSTMENT FACTORS</b>					
<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>				
<b>RUN:</b>	<b>Existing</b>				
<b>Receiver</b>					
<b>Name</b>	<b>No.</b>	<b>Individual Roadway Segment Adjustment Factors</b>			
		<b>Roadway</b>	<b>Segment</b>		
		<b>Name</b>	<b>Name</b>	<b>No.</b>	<b>Adj. Factor</b>
					<b>dB</b>
<b>&lt;&lt; This table is empty &gt;&gt;</b>					

**INPUT: "STRUCTURE" BARRIERS**

**Constitution Avenue**

Kimley-Horn			27 January 2022		
AH			TNM 2.5		
<b>INPUT: "STRUCTURE" BARRIERS</b>					
<b>PROJECT/CONTRACT:</b>		<b>Constitution Avenue</b>			
<b>RUN:</b>		<b>Existing</b>			
<b>Barrier</b>	<b>Segments</b>		<b>Shielded Roadways</b>		<b>Segments</b>
<b>Name</b>	<b>Name</b>	<b>No.</b>	<b>Name</b>	<b>Name</b>	<b>No.</b>
<< This table is empty >>					

**INPUT: BARRIER NOISE REDUCTION COEFFICIENTS**

**Constitution Avenue**

Kimley-Horn					27 January 2022		
AH					TNM 2.5		

**INPUT: BARRIER NOISE REDUCTION COEFFICIENTS**

**PROJECT/CONTRACT:** Constitution Avenue

**RUN:** Existing

Barrier	Segments				Reflected Roadways	Segments	
Name	Name	No.	NRC		Name	Name	No.
			L Side	R Side			

<< This table is empty >>

**RESULTS: BARRIER DESCRIPTIONS**

**Constitution Avenue**

Kimley-Horn				27 January 2022						
AH				TNM 2.5						

**RESULTS: BARRIER DESCRIPTIONS**

<b>PROJECT/CONTRACT:</b>	Constitution Avenue									
<b>RUN:</b>	Existing									
<b>BARRIER DESIGN:</b>	INPUT HEIGHTS									

Barriers											
Name	Type	Heights along Barrier			Length	If Wall		If Berm		Run:Rise	Cost
		Min	Avg	Max		Area	Volume	Top Width			
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	\$	
Total Cost:										0	

**RESULTS: BARRIER-SEGMENT DESCRIPTIONS**

Constitution Avenue

Kimley-Horn													27 January 2022
AH													TNM 2.5

**RESULTS: BARRIER-SEGMENT DESCRIPTIONS**

PROJECT/CONTRACT: Constitution Avenue  
 RUN: Existing  
 BARRIER DESIGN: INPUT HEIGHTS

Barriers		Segments			Length		If Wall	On		Important	If Berm	Cost
Name	Type	Name	No.	Heights	Average	Second	Area	Struc?	Reflections?	Volume		
				First Point	ft	Point	sq ft				cu yd	\$
<< This table is empty >>												





**RESULTS: SOUND LEVELS**

**Constitution Avenue**

149	25	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
150	26	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
151	27	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
152	28	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
153	29	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
154	30	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
155	31	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
156	32	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
157	33	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
158	34	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
159	35	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
160	36	1	0.0	71.9	66	71.9	10	Snd Lvl	71.9	0.0	8	-8.0
161	37	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	8	-8.0
162	38	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0
163	39	1	0.0	70.6	66	70.6	10	Snd Lvl	70.6	0.0	8	-8.0
164	40	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
165	41	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
166	42	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
167	43	1	0.0	68.5	66	68.5	10	Snd Lvl	68.5	0.0	8	-8.0
168	44	1	0.0	68.9	66	68.9	10	Snd Lvl	68.9	0.0	8	-8.0
169	45	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
170	46	1	0.0	68.9	66	68.9	10	Snd Lvl	68.9	0.0	8	-8.0
171	47	1	0.0	68.2	66	68.2	10	Snd Lvl	68.2	0.0	8	-8.0
172	48	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
173	49	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
174	50	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
175	51	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
176	52	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
177	53	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
178	54	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
179	55	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
180	56	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
181	57	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
182	58	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
183	59	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
184	60	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
185	61	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
186	62	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
187	63	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
188	64	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
189	65	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0

**RESULTS: SOUND LEVELS**

**Constitution Avenue**

190	66	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
191	67	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
192	68	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
193	69	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
194	70	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
195	71	1	0.0	64.8	66	64.8	10	----	64.8	0.0	8	-8.0
196	72	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
197	73	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
198	74	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0
199	75	1	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
200	76	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
201	77	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
202	78	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
203	79	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
204	80	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
205	81	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
206	82	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
207	83	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
208	84	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
209	85	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
210	86	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0
211	87	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
212	88	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
213	89	1	0.0	65.3	66	65.3	10	----	65.3	0.0	8	-8.0
214	90	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
215	91	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
216	92	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
217	93	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
218	94	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
219	95	1	0.0	68.9	66	68.9	10	Snd Lvl	68.9	0.0	8	-8.0
220	96	1	0.0	68.2	66	68.2	10	Snd Lvl	68.2	0.0	8	-8.0
221	97	1	0.0	67.9	66	67.9	10	Snd Lvl	67.9	0.0	8	-8.0
222	98	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
223	99	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
224	100	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
225	101	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
226	102	1	0.0	70.6	66	70.6	10	Snd Lvl	70.6	0.0	8	-8.0
227	103	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
228	104	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
229	105	1	0.0	70.9	66	70.9	10	Snd Lvl	70.9	0.0	8	-8.0
230	106	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0

**RESULTS: SOUND LEVELS**

**Constitution Avenue**

231	107	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
232	108	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
233	109	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
234	111	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
235	112	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
236	113	1	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
237	114	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
238	115	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
239	116	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
240	117	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
241	118	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
242	119	1	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
243	120	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
244	121	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
245	122	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
246	123	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
247	124	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0
248	125	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
249	126	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
250	127	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
251	128	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
252	129	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
253	130	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
254	131	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
255	132	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
256	133	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
257	134	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
258	135	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
259	136	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
260	137	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
261	138	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
262	139	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
263	140	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
264	141	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
265	142	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
266	143	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
267	144	1	0.0	68.9	66	68.9	10	Snd Lvl	68.9	0.0	8	-8.0
268	145	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
269	146	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
270	147	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
271	148	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0

**RESULTS: SOUND LEVELS**

**Constitution Avenue**

272	149	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
273	150	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
274	151	1	0.0	71.3	66	71.3	10	Snd Lvl	71.3	0.0	8	-8.0
275	152	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
276	153	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
277	154	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
278	155	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
279	156	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
280	157	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>									
			<b>Min</b>	<b>Avg</b>	<b>Max</b>							
			<b>dB</b>	<b>dB</b>	<b>dB</b>							
All Selected		156	0.0	0.0	0.0							
All Impacted		101	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT**

**Constitution Avenue**

Kimley-Horn				27 January 2022
AH				TNM 2.5
				Calculated with TNM 2.5

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT**

**PROJECT/CONTRACT:** Constitution Avenue

**RUN:** Existing

**BARRIER DESIGN:** INPUT HEIGHTS

**ATMOSPHERICS:** 68 deg F, 50% RH

**Selected Receivers**

Name	No.	Total	Important Barriers	Important Segments		
		LAeq1h	Name	Name	No.	Partial
		dBA				LAeq1h
		dBA				dBA
125	1	68.30				
126	2	69.90				
127	3	69.90				
128	4	69.80				
129	5	69.80				
130	6	69.80				
131	7	69.80				
132	8	69.80				
133	9	67.30				
134	10	65.60				
135	11	64.70				
136	12	63.90				
137	13	63.70				
138	14	64.40				
139	15	65.20				
140	16	66.30				
141	17	67.10				
142	18	67.40				
143	19	67.30				
144	20	67.30				

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT****Constitution Avenue**

145	21	66.10			
146	22	65.00			
147	23	64.10			
148	24	63.00			
149	25	62.90			
150	26	63.90			
151	27	64.60			
152	28	65.10			
153	29	67.00			
154	30	69.80			
155	31	70.30			
156	32	70.50			
157	33	70.80			
158	34	71.00			
159	35	71.40			
160	36	71.90			
161	37	71.20			
162	38	71.10			
163	39	70.60			
164	40	70.30			
165	41	70.10			
166	42	68.30			
167	43	68.50			
168	44	68.90			
169	45	69.50			
170	46	68.90			
171	47	68.20			
172	48	67.50			
173	49	66.90			
174	50	66.40			
175	51	65.60			
176	52	64.90			
177	53	65.40			
178	54	66.10			
179	55	67.50			
180	56	70.10			

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT****Constitution Avenue**

181	57	66.50			
182	58	64.60			
183	59	64.10			
184	60	63.50			
185	61	62.70			
186	62	62.90			
187	63	63.70			
188	64	64.50			
189	65	65.60			
190	66	66.80			
191	67	66.80			
192	68	66.90			
193	69	66.70			
194	70	65.80			
195	71	64.80			
196	72	64.10			
197	73	63.50			
198	74	63.80			
199	75	64.40			
200	76	65.20			
201	77	66.80			
202	78	69.60			
203	79	69.60			
204	80	69.50			
205	81	69.60			
206	82	69.60			
207	83	69.60			
208	84	69.80			
209	85	67.00			
210	86	65.70			
211	87	65.10			
212	88	64.70			
213	89	65.30			
214	90	65.90			
215	91	66.50			
216	92	67.00			



**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT****Constitution Avenue**

217	93	67.70			
218	94	68.30			
219	95	68.90			
220	96	68.20			
221	97	67.90			
222	98	67.80			
223	99	69.70			
224	100	69.90			
225	101	70.20			
226	102	70.60			
227	103	70.80			
228	104	71.40			
229	105	70.90			
230	106	70.50			
231	107	70.40			
232	108	70.10			
233	109	69.90			
234	111	69.40			
235	112	66.60			
236	113	64.40			
237	114	63.90			
238	115	63.40			
239	116	62.60			
240	117	62.70			
241	118	63.50			
242	119	64.40			
243	120	65.50			
244	121	66.90			
245	122	66.90			
246	123	66.70			
247	124	65.70			
248	125	64.70			
249	126	63.90			
250	127	63.40			
251	128	63.60			
252	129	64.20			

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT****Constitution Avenue**

253	130	65.00			
254	131	66.80			
255	132	69.30			
256	133	69.30			
257	134	69.30			
258	135	69.30			
259	136	69.30			
260	137	69.50			
261	138	67.00			
262	139	65.50			
263	140	64.90			
264	141	64.60			
265	142	65.10			
266	143	67.60			
267	144	68.90			
268	145	67.80			
269	146	69.60			
270	147	69.70			
271	148	70.00			
272	149	70.50			
273	150	70.70			
274	151	71.30			
275	152	70.80			
276	153	70.30			
277	154	70.20			
278	155	69.80			
279	156	69.70			
280	157	69.30			

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

Constitution Avenue

Kimley-Horn			27 January 2022
AH			TNM 2.5
			Calculated with TNM 2.5

<b>RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE</b>			
<b>PROJECT/CONTRACT:</b>	Constitution Avenue		
<b>RUN:</b>	Existing		
<b>BARRIER DESIGN:</b>	INPUT HEIGHTS		
<b>ATMOSPHERICS:</b>	68 deg F, 50% RH		

Receivers				
Name	No.	Total	Vehicle Type	Partial
		LAeq1h	Name	
		dBA		dBA
125	1	68.3	Autos	67.6
			MTrucks	55.2
			HTrucks	58.1
			Buses	
			Motorcycles	
126	2	69.9	Autos	69.2
			MTrucks	56.7
			HTrucks	59.7
			Buses	
			Motorcycles	
127	3	69.9	Autos	69.2
			MTrucks	56.6
			HTrucks	59.7
			Buses	
			Motorcycles	
128	4	69.8	Autos	69.2
			MTrucks	56.6
			HTrucks	59.7
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

129	5	69.8	Autos	69.1
			MTrucks	56.7
			HTrucks	59.7
			Buses	
			Motorcycles	
130	6	69.8	Autos	69.1
			MTrucks	56.7
			HTrucks	59.7
			Buses	
			Motorcycles	
131	7	69.8	Autos	69.2
			MTrucks	56.7
			HTrucks	59.8
			Buses	
			Motorcycles	
132	8	69.8	Autos	69.1
			MTrucks	56.7
			HTrucks	59.8
			Buses	
			Motorcycles	
133	9	67.3	Autos	66.6
			MTrucks	54.4
			HTrucks	57.3
			Buses	
			Motorcycles	
134	10	65.6	Autos	64.8
			MTrucks	52.7
			HTrucks	55.9
			Buses	
			Motorcycles	
135	11	64.7	Autos	63.9
			MTrucks	51.9
			HTrucks	55.1
			Buses	
			Motorcycles	
136	12	63.9	Autos	63.1

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	51.1
			HTrucks	54.5
			Buses	
			Motorcycles	
137	13	63.7	Autos	62.9
			MTrucks	50.9
			HTrucks	54.2
			Buses	
			Motorcycles	
138	14	64.4	Autos	63.6
			MTrucks	51.5
			HTrucks	54.8
			Buses	
			Motorcycles	
139	15	65.2	Autos	64.5
			MTrucks	52.3
			HTrucks	55.5
			Buses	
			Motorcycles	
140	16	66.3	Autos	65.6
			MTrucks	53.4
			HTrucks	56.4
			Buses	
			Motorcycles	
141	17	67.1	Autos	66.4
			MTrucks	54.2
			HTrucks	57.1
			Buses	
			Motorcycles	
142	18	67.4	Autos	66.7
			MTrucks	54.4
			HTrucks	57.3
			Buses	
			Motorcycles	
143	19	67.3	Autos	66.6
			MTrucks	54.4

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	57.2
			Buses	
			Motorcycles	
144	20	67.3	Autos	66.6
			MTrucks	54.3
			HTrucks	57.2
			Buses	
			Motorcycles	
145	21	66.1	Autos	65.4
			MTrucks	53.2
			HTrucks	56.1
			Buses	
			Motorcycles	
146	22	65.0	Autos	64.2
			MTrucks	52.1
			HTrucks	55.1
			Buses	
			Motorcycles	
147	23	64.1	Autos	63.3
			MTrucks	51.2
			HTrucks	54.4
			Buses	
			Motorcycles	
148	24	63.0	Autos	62.3
			MTrucks	50.3
			HTrucks	53.5
			Buses	
			Motorcycles	
149	25	62.9	Autos	62.1
			MTrucks	50.1
			HTrucks	53.4
			Buses	
			Motorcycles	
150	26	63.9	Autos	63.2
			MTrucks	51.0
			HTrucks	54.2

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
151	27	64.6	Autos	63.8
			MTrucks	51.7
			HTrucks	54.7
			Buses	
			Motorcycles	
152	28	65.1	Autos	64.4
			MTrucks	52.1
			HTrucks	55.2
			Buses	
			Motorcycles	
153	29	67.0	Autos	66.3
			MTrucks	54.0
			HTrucks	56.9
			Buses	
			Motorcycles	
154	30	69.8	Autos	69.1
			MTrucks	56.7
			HTrucks	59.9
			Buses	
			Motorcycles	
155	31	70.3	Autos	69.6
			MTrucks	57.2
			HTrucks	60.4
			Buses	
			Motorcycles	
156	32	70.5	Autos	69.7
			MTrucks	57.4
			HTrucks	60.6
			Buses	
			Motorcycles	
157	33	70.8	Autos	70.1
			MTrucks	57.7
			HTrucks	61.0
			Buses	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
158	34	71.0	Autos	70.2
			MTrucks	57.9
			HTrucks	61.2
			Buses	
			Motorcycles	
159	35	71.4	Autos	70.7
			MTrucks	58.3
			HTrucks	61.8
			Buses	
			Motorcycles	
160	36	71.9	Autos	71.1
			MTrucks	58.7
			HTrucks	62.3
			Buses	
			Motorcycles	
161	37	71.2	Autos	70.5
			MTrucks	58.2
			HTrucks	61.8
			Buses	
			Motorcycles	
162	38	71.1	Autos	70.3
			MTrucks	57.9
			HTrucks	61.6
			Buses	
			Motorcycles	
163	39	70.6	Autos	69.9
			MTrucks	57.5
			HTrucks	61.2
			Buses	
			Motorcycles	
164	40	70.3	Autos	69.5
			MTrucks	57.1
			HTrucks	60.8
			Buses	
			Motorcycles	



**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

165	41	70.1	Autos	69.4
			MTrucks	56.9
			HTrucks	60.7
			Buses	
			Motorcycles	
166	42	68.3	Autos	67.5
			MTrucks	55.2
			HTrucks	58.9
			Buses	
			Motorcycles	
167	43	68.5	Autos	67.8
			MTrucks	55.5
			HTrucks	59.1
			Buses	
			Motorcycles	
168	44	68.9	Autos	68.1
			MTrucks	55.9
			HTrucks	59.4
			Buses	
			Motorcycles	
169	45	69.5	Autos	68.8
			MTrucks	56.5
			HTrucks	59.9
			Buses	
			Motorcycles	
170	46	68.9	Autos	68.1
			MTrucks	55.9
			HTrucks	59.2
			Buses	
			Motorcycles	
171	47	68.2	Autos	67.5
			MTrucks	55.3
			HTrucks	58.5
			Buses	
			Motorcycles	
172	48	67.5	Autos	66.7

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	54.5
			HTrucks	57.8
			Buses	
			Motorcycles	
173	49	66.9	Autos	66.2
			MTrucks	54.0
			HTrucks	57.3
			Buses	
			Motorcycles	
174	50	66.4	Autos	65.6
			MTrucks	53.5
			HTrucks	56.9
			Buses	
			Motorcycles	
175	51	65.6	Autos	64.8
			MTrucks	52.7
			HTrucks	56.2
			Buses	
			Motorcycles	
176	52	64.9	Autos	64.1
			MTrucks	52.0
			HTrucks	55.6
			Buses	
			Motorcycles	
177	53	65.4	Autos	64.6
			MTrucks	52.5
			HTrucks	55.9
			Buses	
			Motorcycles	
178	54	66.1	Autos	65.3
			MTrucks	53.2
			HTrucks	56.5
			Buses	
			Motorcycles	
179	55	67.5	Autos	66.8
			MTrucks	54.6

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	57.7
			Buses	
			Motorcycles	
180	56	70.1	Autos	69.4
			MTrucks	57.0
			HTrucks	60.1
			Buses	
			Motorcycles	
181	57	66.5	Autos	65.8
			MTrucks	53.1
			HTrucks	56.5
			Buses	
			Motorcycles	
182	58	64.6	Autos	63.9
			MTrucks	51.5
			HTrucks	54.7
			Buses	
			Motorcycles	
183	59	64.1	Autos	63.4
			MTrucks	51.1
			HTrucks	54.2
			Buses	
			Motorcycles	
184	60	63.5	Autos	62.8
			MTrucks	50.6
			HTrucks	53.6
			Buses	
			Motorcycles	
185	61	62.7	Autos	62.0
			MTrucks	49.8
			HTrucks	52.9
			Buses	
			Motorcycles	
186	62	62.9	Autos	62.2
			MTrucks	50.0
			HTrucks	53.1

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
187	63	63.7	Autos	63.0
			MTrucks	50.7
			HTrucks	53.8
			Buses	
			Motorcycles	
188	64	64.5	Autos	63.8
			MTrucks	51.5
			HTrucks	54.7
			Buses	
			Motorcycles	
189	65	65.6	Autos	64.9
			MTrucks	52.4
			HTrucks	55.7
			Buses	
			Motorcycles	
190	66	66.8	Autos	66.1
			MTrucks	53.4
			HTrucks	56.9
			Buses	
			Motorcycles	
191	67	66.8	Autos	66.1
			MTrucks	53.4
			HTrucks	56.9
			Buses	
			Motorcycles	
192	68	66.9	Autos	66.2
			MTrucks	53.5
			HTrucks	56.9
			Buses	
			Motorcycles	
193	69	66.7	Autos	66.0
			MTrucks	53.3
			HTrucks	56.8
			Buses	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
194	70	65.8	Autos	65.1
			MTrucks	52.7
			HTrucks	56.0
			Buses	
			Motorcycles	
195	71	64.8	Autos	64.1
			MTrucks	51.8
			HTrucks	55.0
			Buses	
			Motorcycles	
196	72	64.1	Autos	63.3
			MTrucks	51.1
			HTrucks	54.2
			Buses	
			Motorcycles	
197	73	63.5	Autos	62.8
			MTrucks	50.6
			HTrucks	53.7
			Buses	
			Motorcycles	
198	74	63.8	Autos	63.0
			MTrucks	50.9
			HTrucks	54.0
			Buses	
			Motorcycles	
199	75	64.4	Autos	63.7
			MTrucks	51.5
			HTrucks	54.6
			Buses	
			Motorcycles	
200	76	65.2	Autos	64.5
			MTrucks	52.2
			HTrucks	55.4
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

201	77	66.8	Autos	66.1
			MTrucks	53.5
			HTrucks	57.0
			Buses	
			Motorcycles	
202	78	69.6	Autos	68.9
			MTrucks	56.2
			HTrucks	59.7
			Buses	
			Motorcycles	
203	79	69.6	Autos	68.9
			MTrucks	56.2
			HTrucks	59.7
			Buses	
			Motorcycles	
204	80	69.5	Autos	68.9
			MTrucks	56.1
			HTrucks	59.6
			Buses	
			Motorcycles	
205	81	69.6	Autos	68.9
			MTrucks	56.1
			HTrucks	59.6
			Buses	
			Motorcycles	
206	82	69.6	Autos	68.9
			MTrucks	56.1
			HTrucks	59.6
			Buses	
			Motorcycles	
207	83	69.6	Autos	68.9
			MTrucks	56.1
			HTrucks	59.6
			Buses	
			Motorcycles	
208	84	69.8	Autos	69.1

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	56.4
			HTrucks	60.0
			Buses	
			Motorcycles	
209	85	67.0	Autos	66.3
			MTrucks	53.8
			HTrucks	57.3
			Buses	
			Motorcycles	
210	86	65.7	Autos	65.0
			MTrucks	52.7
			HTrucks	56.0
			Buses	
			Motorcycles	
211	87	65.1	Autos	64.4
			MTrucks	52.1
			HTrucks	55.4
			Buses	
			Motorcycles	
212	88	64.7	Autos	64.0
			MTrucks	51.8
			HTrucks	55.1
			Buses	
			Motorcycles	
213	89	65.3	Autos	64.6
			MTrucks	52.3
			HTrucks	55.7
			Buses	
			Motorcycles	
214	90	65.9	Autos	65.2
			MTrucks	52.9
			HTrucks	56.3
			Buses	
			Motorcycles	
215	91	66.5	Autos	65.7
			MTrucks	53.4

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	56.8
			Buses	
			Motorcycles	
216	92	67.0	Autos	66.2
			MTrucks	53.8
			HTrucks	57.3
			Buses	
			Motorcycles	
217	93	67.7	Autos	66.9
			MTrucks	54.4
			HTrucks	58.0
			Buses	
			Motorcycles	
218	94	68.3	Autos	67.5
			MTrucks	55.0
			HTrucks	58.6
			Buses	
			Motorcycles	
219	95	68.9	Autos	68.1
			MTrucks	55.5
			HTrucks	59.4
			Buses	
			Motorcycles	
220	96	68.2	Autos	67.5
			MTrucks	55.0
			HTrucks	58.8
			Buses	
			Motorcycles	
221	97	67.9	Autos	67.2
			MTrucks	54.7
			HTrucks	58.5
			Buses	
			Motorcycles	
222	98	67.8	Autos	67.0
			MTrucks	54.4
			HTrucks	58.4



**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
223	99	69.7	Autos	69.0
			MTrucks	56.2
			HTrucks	60.5
			Buses	
			Motorcycles	
224	100	69.9	Autos	69.1
			MTrucks	56.4
			HTrucks	60.6
			Buses	
			Motorcycles	
225	101	70.2	Autos	69.4
			MTrucks	56.7
			HTrucks	61.0
			Buses	
			Motorcycles	
226	102	70.6	Autos	69.8
			MTrucks	57.1
			HTrucks	61.5
			Buses	
			Motorcycles	
227	103	70.8	Autos	70.0
			MTrucks	57.3
			HTrucks	61.6
			Buses	
			Motorcycles	
228	104	71.4	Autos	70.7
			MTrucks	58.0
			HTrucks	62.2
			Buses	
			Motorcycles	
229	105	70.9	Autos	70.2
			MTrucks	57.5
			HTrucks	61.5
			Buses	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
230	106	70.5	Autos	69.8
			MTrucks	57.2
			HTrucks	61.0
			Buses	
			Motorcycles	
231	107	70.4	Autos	69.7
			MTrucks	57.1
			HTrucks	60.8
			Buses	
			Motorcycles	
232	108	70.1	Autos	69.4
			MTrucks	56.7
			HTrucks	60.4
			Buses	
			Motorcycles	
233	109	69.9	Autos	69.2
			MTrucks	56.6
			HTrucks	60.2
			Buses	
			Motorcycles	
234	111	69.4	Autos	68.7
			MTrucks	56.1
			HTrucks	59.7
			Buses	
			Motorcycles	
235	112	66.6	Autos	65.9
			MTrucks	53.0
			HTrucks	56.6
			Buses	
			Motorcycles	
236	113	64.4	Autos	63.7
			MTrucks	51.0
			HTrucks	54.6
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

237	114	63.9	Autos	63.2
			MTrucks	50.6
			HTrucks	54.1
			Buses	
			Motorcycles	
238	115	63.4	Autos	62.7
			MTrucks	50.1
			HTrucks	53.5
			Buses	
			Motorcycles	
239	116	62.6	Autos	61.9
			MTrucks	49.5
			HTrucks	52.8
			Buses	
			Motorcycles	
240	117	62.7	Autos	62.0
			MTrucks	49.7
			HTrucks	53.0
			Buses	
			Motorcycles	
241	118	63.5	Autos	62.8
			MTrucks	50.3
			HTrucks	53.7
			Buses	
			Motorcycles	
242	119	64.4	Autos	63.7
			MTrucks	51.0
			HTrucks	54.5
			Buses	
			Motorcycles	
243	120	65.5	Autos	64.8
			MTrucks	52.0
			HTrucks	55.6
			Buses	
			Motorcycles	
244	121	66.9	Autos	66.2

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	53.4
			HTrucks	57.0
			Buses	
			Motorcycles	
245	122	66.9	Autos	66.2
			MTrucks	53.5
			HTrucks	57.1
			Buses	
			Motorcycles	
246	123	66.7	Autos	66.0
			MTrucks	53.2
			HTrucks	56.8
			Buses	
			Motorcycles	
247	124	65.7	Autos	65.0
			MTrucks	52.3
			HTrucks	55.9
			Buses	
			Motorcycles	
248	125	64.7	Autos	63.9
			MTrucks	51.3
			HTrucks	54.9
			Buses	
			Motorcycles	
249	126	63.9	Autos	63.2
			MTrucks	50.7
			HTrucks	54.1
			Buses	
			Motorcycles	
250	127	63.4	Autos	62.6
			MTrucks	50.3
			HTrucks	53.6
			Buses	
			Motorcycles	
251	128	63.6	Autos	62.9
			MTrucks	50.5

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	53.9
			Buses	
			Motorcycles	
252	129	64.2	Autos	63.5
			MTrucks	51.0
			HTrucks	54.5
			Buses	
			Motorcycles	
253	130	65.0	Autos	64.3
			MTrucks	51.7
			HTrucks	55.3
			Buses	
			Motorcycles	
254	131	66.8	Autos	66.1
			MTrucks	53.4
			HTrucks	57.0
			Buses	
			Motorcycles	
255	132	69.3	Autos	68.6
			MTrucks	56.1
			HTrucks	59.5
			Buses	
			Motorcycles	
256	133	69.3	Autos	68.6
			MTrucks	56.1
			HTrucks	59.4
			Buses	
			Motorcycles	
257	134	69.3	Autos	68.6
			MTrucks	56.1
			HTrucks	59.4
			Buses	
			Motorcycles	
258	135	69.3	Autos	68.6
			MTrucks	56.1
			HTrucks	59.4

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
259	136	69.3	Autos	68.6
			MTrucks	56.1
			HTrucks	59.4
			Buses	
			Motorcycles	
260	137	69.5	Autos	68.8
			MTrucks	56.3
			HTrucks	59.8
			Buses	
			Motorcycles	
261	138	67.0	Autos	66.3
			MTrucks	53.6
			HTrucks	57.3
			Buses	
			Motorcycles	
262	139	65.5	Autos	64.8
			MTrucks	52.2
			HTrucks	55.9
			Buses	
			Motorcycles	
263	140	64.9	Autos	64.2
			MTrucks	51.7
			HTrucks	55.3
			Buses	
			Motorcycles	
264	141	64.6	Autos	63.8
			MTrucks	51.4
			HTrucks	55.0
			Buses	
			Motorcycles	
265	142	65.1	Autos	64.4
			MTrucks	51.8
			HTrucks	55.6
			Buses	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
266	143	67.6	Autos	66.9
			MTrucks	54.1
			HTrucks	58.0
			Buses	
			Motorcycles	
267	144	68.9	Autos	68.1
			MTrucks	55.3
			HTrucks	59.5
			Buses	
			Motorcycles	
268	145	67.8	Autos	67.0
			MTrucks	54.3
			HTrucks	58.5
			Buses	
			Motorcycles	
269	146	69.6	Autos	68.8
			MTrucks	56.1
			HTrucks	60.4
			Buses	
			Motorcycles	
270	147	69.7	Autos	68.9
			MTrucks	56.2
			HTrucks	60.5
			Buses	
			Motorcycles	
271	148	70.0	Autos	69.2
			MTrucks	56.5
			HTrucks	60.8
			Buses	
			Motorcycles	
272	149	70.5	Autos	69.7
			MTrucks	57.0
			HTrucks	61.4
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

273	150	70.7	Autos	69.9
			MTrucks	57.2
			HTrucks	61.5
			Buses	
			Motorcycles	
274	151	71.3	Autos	70.5
			MTrucks	57.9
			HTrucks	62.0
			Buses	
			Motorcycles	
275	152	70.8	Autos	70.0
			MTrucks	57.5
			HTrucks	61.6
			Buses	
			Motorcycles	
276	153	70.3	Autos	69.6
			MTrucks	57.0
			HTrucks	60.9
			Buses	
			Motorcycles	
277	154	70.2	Autos	69.4
			MTrucks	56.9
			HTrucks	60.6
			Buses	
			Motorcycles	
278	155	69.8	Autos	69.1
			MTrucks	56.5
			HTrucks	60.1
			Buses	
			Motorcycles	
279	156	69.7	Autos	69.0
			MTrucks	56.4
			HTrucks	60.0
			Buses	
			Motorcycles	
280	157	69.3	Autos	68.6



**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

			MTrucks	56.0
			HTrucks	59.5
			Buses	
			Motorcycles	

**Constitution Avenue**

**RESULTS: BARRIER DESIGN**

Constitution Avenue

<b>Kimley-Horn</b>											27 January 2022
<b>AH</b>											TNM 2.5
											Calculated with TNM 2.5

**RESULTS: BARRIER DESIGN**

<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>										
<b>RUN:</b>	<b>Existing</b>										
<b>BARRIER DESIGN:</b>	<b>INPUT HEIGHTS</b>										

<b>ATMOSPHERICS:</b>	<b>68 deg F, 50% RH</b>										
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**Selected Receivers**

Name	No.	Noise Reduction				Barrier Reviewed	Important Segments			Partial LAeq1h
		Calc LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	
		dBA	dB	dB	dB			ft	dBA	
125	1	68.3	-0.0	8	-8.0					
126	2	69.9	-0.0	8	-8.0					
127	3	69.9	-0.0	8	-8.0					
128	4	69.8	0.0	8	-8.0					
129	5	69.8	0.0	8	-8.0					
130	6	69.8	0.0	8	-8.0					
131	7	69.8	0.0	8	-8.0					
132	8	69.8	0.0	8	-8.0					
133	9	67.3	-0.0	8	-8.0					
134	10	65.6	-0.0	8	-8.0					
135	11	64.7	0.0	8	-8.0					
136	12	63.9	-0.0	8	-8.0					
137	13	63.7	-0.0	8	-8.0					
138	14	64.4	-0.0	8	-8.0					
139	15	65.2	0.0	8	-8.0					
140	16	66.3	-0.0	8	-8.0					
141	17	67.1	0.0	8	-8.0					
142	18	67.4	-0.0	8	-8.0					
143	19	67.3	0.0	8	-8.0					
144	20	67.3	0.0	8	-8.0					
145	21	66.1	0.0	8	-8.0					

**RESULTS: BARRIER DESIGN**

**Constitution Avenue**

146	22	65.0	-0.0	8	-8.0					
147	23	64.1	-0.0	8	-8.0					
148	24	63.0	0.0	8	-8.0					
149	25	62.9	0.0	8	-8.0					
150	26	63.9	0.0	8	-8.0					
151	27	64.6	-0.0	8	-8.0					
152	28	65.1	-0.0	8	-8.0					
153	29	67.0	0.0	8	-8.0					
154	30	69.8	-0.0	8	-8.0					
155	31	70.3	-0.0	8	-8.0					
156	32	70.5	-0.0	8	-8.0					
157	33	70.8	0.0	8	-8.0					
158	34	71.0	-0.0	8	-8.0					
159	35	71.4	0.0	8	-8.0					
160	36	71.9	-0.0	8	-8.0					
161	37	71.2	0.0	8	-8.0					
162	38	71.1	-0.0	8	-8.0					
163	39	70.6	0.0	8	-8.0					
164	40	70.3	-0.0	8	-8.0					
165	41	70.1	0.0	8	-8.0					
166	42	68.3	-0.0	8	-8.0					
167	43	68.5	0.0	8	-8.0					
168	44	68.9	-0.0	8	-8.0					
169	45	69.5	0.0	8	-8.0					
170	46	68.9	-0.0	8	-8.0					
171	47	68.2	0.0	8	-8.0					
172	48	67.5	-0.0	8	-8.0					
173	49	66.9	0.0	8	-8.0					
174	50	66.4	-0.0	8	-8.0					
175	51	65.6	-0.0	8	-8.0					
176	52	64.9	-0.0	8	-8.0					
177	53	65.4	-0.0	8	-8.0					
178	54	66.1	-0.0	8	-8.0					
179	55	67.5	0.0	8	-8.0					
180	56	70.1	-0.0	8	-8.0					
181	57	66.5	-0.0	8	-8.0					

**RESULTS: BARRIER DESIGN**

**Constitution Avenue**

182	58	64.6	-0.0	8	-8.0					
183	59	64.1	0.0	8	-8.0					
184	60	63.5	0.0	8	-8.0					
185	61	62.7	0.0	8	-8.0					
186	62	62.9	0.0	8	-8.0					
187	63	63.7	-0.0	8	-8.0					
188	64	64.5	0.0	8	-8.0					
189	65	65.6	0.0	8	-8.0					
190	66	66.8	0.0	8	-8.0					
191	67	66.8	0.0	8	-8.0					
192	68	66.9	-0.0	8	-8.0					
193	69	66.7	-0.0	8	-8.0					
194	70	65.8	0.0	8	-8.0					
195	71	64.8	0.0	8	-8.0					
196	72	64.1	-0.0	8	-8.0					
197	73	63.5	0.0	8	-8.0					
198	74	63.8	-0.0	8	-8.0					
199	75	64.4	0.0	8	-8.0					
200	76	65.2	-0.0	8	-8.0					
201	77	66.8	0.0	8	-8.0					
202	78	69.6	-0.0	8	-8.0					
203	79	69.6	-0.0	8	-8.0					
204	80	69.5	0.0	8	-8.0					
205	81	69.6	-0.0	8	-8.0					
206	82	69.6	-0.0	8	-8.0					
207	83	69.6	-0.0	8	-8.0					
208	84	69.8	-0.0	8	-8.0					
209	85	67.0	0.0	8	-8.0					
210	86	65.7	0.0	8	-8.0					
211	87	65.1	-0.0	8	-8.0					
212	88	64.7	0.0	8	-8.0					
213	89	65.3	0.0	8	-8.0					
214	90	65.9	0.0	8	-8.0					
215	91	66.5	-0.0	8	-8.0					
216	92	67.0	-0.0	8	-8.0					
217	93	67.7	-0.0	8	-8.0					

**RESULTS: BARRIER DESIGN**

**Constitution Avenue**

218	94	68.3	-0.0	8	-8.0					
219	95	68.9	-0.0	8	-8.0					
220	96	68.2	0.0	8	-8.0					
221	97	67.9	0.0	8	-8.0					
222	98	67.8	-0.0	8	-8.0					
223	99	69.7	0.0	8	-8.0					
224	100	69.9	-0.0	8	-8.0					
225	101	70.2	-0.0	8	-8.0					
226	102	70.6	0.0	8	-8.0					
227	103	70.8	-0.0	8	-8.0					
228	104	71.4	0.0	8	-8.0					
229	105	70.9	0.0	8	-8.0					
230	106	70.5	0.0	8	-8.0					
231	107	70.4	0.0	8	-8.0					
232	108	70.1	-0.0	8	-8.0					
233	109	69.9	0.0	8	-8.0					
234	111	69.4	0.0	8	-8.0					
235	112	66.6	-0.0	8	-8.0					
236	113	64.4	0.0	8	-8.0					
237	114	63.9	0.0	8	-8.0					
238	115	63.4	-0.0	8	-8.0					
239	116	62.6	0.0	8	-8.0					
240	117	62.7	0.0	8	-8.0					
241	118	63.5	0.0	8	-8.0					
242	119	64.4	-0.0	8	-8.0					
243	120	65.5	0.0	8	-8.0					
244	121	66.9	-0.0	8	-8.0					
245	122	66.9	0.0	8	-8.0					
246	123	66.7	-0.0	8	-8.0					
247	124	65.7	0.0	8	-8.0					
248	125	64.7	-0.0	8	-8.0					
249	126	63.9	-0.0	8	-8.0					
250	127	63.4	-0.0	8	-8.0					
251	128	63.6	0.0	8	-8.0					
252	129	64.2	0.0	8	-8.0					
253	130	65.0	0.0	8	-8.0					

**RESULTS: BARRIER DESIGN**

**Constitution Avenue**

254	131	66.8	0.0	8	-8.0				
255	132	69.3	0.0	8	-8.0				
256	133	69.3	-0.0	8	-8.0				
257	134	69.3	-0.0	8	-8.0				
258	135	69.3	-0.0	8	-8.0				
259	136	69.3	-0.0	8	-8.0				
260	137	69.5	0.0	8	-8.0				
261	138	67.0	-0.0	8	-8.0				
262	139	65.5	0.0	8	-8.0				
263	140	64.9	0.0	8	-8.0				
264	141	64.6	-0.0	8	-8.0				
265	142	65.1	0.0	8	-8.0				
266	143	67.6	-0.0	8	-8.0				
267	144	68.9	-0.0	8	-8.0				
268	145	67.8	-0.0	8	-8.0				
269	146	69.6	-0.0	8	-8.0				
270	147	69.7	-0.0	8	-8.0				
271	148	70.0	-0.0	8	-8.0				
272	149	70.5	-0.0	8	-8.0				
273	150	70.7	-0.0	8	-8.0				
274	151	71.3	-0.0	8	-8.0				
275	152	70.8	0.0	8	-8.0				
276	153	70.3	0.0	8	-8.0				
277	154	70.2	-0.0	8	-8.0				
278	155	69.8	0.0	8	-8.0				
279	156	69.7	-0.0	8	-8.0				
280	157	69.3	-0.0	8	-8.0				
Total Cost, All Barriers (including additional cost(s))					\$0				

INPUT: ROADWAYS

Constitution Avenue

Kimley-Horn											
AH											

27 January 2022  
TNM 2.5

INPUT: ROADWAYS

PROJECT/CONTRACT: Constitution Avenue  
RUN: 2045 No-Build

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway	Width	Points	Coordinates (pavement)	Flow Control	Segment						
Name		Name	No.	X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
EB Constitution Lanes	24.0	point13	13	3,230,724.8	1,377,835.8	0.00	Signal	0.00	50	Average	
		point12	12	3,230,980.5	1,377,831.0	0.00				Average	
		point11	11	3,231,236.2	1,377,836.8	0.00				Average	
		point10	10	3,231,492.0	1,377,839.6	0.00				Average	
		point9	9	3,231,747.8	1,377,844.2	0.00				Average	
		point8	8	3,232,003.5	1,377,850.5	0.00				Average	
		point7	7	3,232,259.2	1,377,854.0	0.00				Average	
		point6	6	3,232,514.8	1,377,857.5	0.00				Average	
		point5	5	3,232,770.5	1,377,860.5	0.00				Average	
		point4	4	3,233,026.2	1,377,864.4	0.00				Average	
		point3	3	3,233,282.0	1,377,868.4	0.00				Average	
		point2	2	3,233,537.8	1,377,870.5	0.00				Average	
		point1	1	3,233,793.5	1,377,874.2	0.00					
WB Constitution Lanes	24.0	point14	14	3,233,805.5	1,377,916.6	0.00	Signal	0.00	50	Average	
		point15	15	3,233,549.8	1,377,913.0	0.00				Average	
		point16	16	3,233,294.0	1,377,911.4	0.00				Average	
		point17	17	3,233,038.2	1,377,907.5	0.00				Average	
		point18	18	3,232,782.5	1,377,903.2	0.00				Average	
		point19	19	3,232,526.8	1,377,902.2	0.00				Average	
		point20	20	3,232,271.0	1,377,898.6	0.00				Average	
		point21	21	3,232,015.2	1,377,894.8	0.00				Average	
		point22	22	3,231,759.5	1,377,890.9	0.00				Average	
		point23	23	3,231,503.8	1,377,885.4	0.00				Average	
		point24	24	3,231,248.0	1,377,880.5	0.00				Average	
		point25	25	3,230,992.2	1,377,876.5	0.00				Average	

**INPUT: ROADWAYS**

**Constitution Avenue**

		point26	26	3,230,736.5	1,377,878.2	0.00					
EB Constitution Turn Lane	14.0	point36	36	3,230,975.2	1,377,811.1	0.00				Average	
		point35	35	3,231,231.0	1,377,814.2	0.00				Average	
		point34	34	3,231,486.8	1,377,818.2	0.00				Average	
		point33	33	3,231,742.5	1,377,823.8	0.00				Average	
		point32	32	3,231,998.2	1,377,828.5	0.00				Average	
		point31	31	3,232,254.0	1,377,831.0	0.00				Average	
		point30	30	3,232,509.5	1,377,837.4	0.00				Average	
		point29	29	3,232,553.5	1,377,833.0	0.00				Average	
		point28	28	3,232,586.2	1,377,815.1	0.00				Average	
		point27	27	3,232,608.8	1,377,786.4	0.00					
WB Constitution Turn Lane	14.0	point37	37	3,232,597.8	1,377,990.1	0.00				Average	
		point38	38	3,232,575.2	1,377,955.4	0.00				Average	
		point39	39	3,232,541.5	1,377,934.9	0.00				Average	
		point40	40	3,232,505.2	1,377,922.8	0.00				Average	
		point41	41	3,232,444.2	1,377,918.9	0.00				Average	
		point42	42	3,232,325.0	1,377,916.9	0.00				Average	
		point43	43	3,232,148.2	1,377,916.1	0.00				Average	
		point44	37	3,231,946.2	1,377,912.6	0.00				Average	
		point45	45	3,231,636.5	1,377,908.2	0.00				Average	
		point46	46	3,231,580.2	1,377,920.4	0.00					
Akers SB to Const WB	14.0	point58	58	3,231,392.2	1,378,298.8	0.00				Average	
		point57	57	3,231,442.2	1,378,188.0	0.00				Average	
		point56	56	3,231,482.0	1,378,090.6	0.00				Average	
		point55	55	3,231,500.5	1,378,021.6	0.00				Average	
		point54	54	3,231,501.0	1,377,963.5	0.00				Average	
		point53	53	3,231,488.5	1,377,935.6	0.00				Average	
		point52	52	3,231,459.2	1,377,913.5	0.00				Average	
		point51	51	3,231,422.0	1,377,903.9	0.00				Average	
		point50	50	3,231,345.0	1,377,901.5	0.00				Average	
		point49	49	3,231,047.2	1,377,896.2	0.00				Average	
		point48	48	3,230,916.2	1,377,893.4	0.00				Average	
		point47	47	3,230,737.0	1,377,895.2	0.00					
Akers Dr NB	14.0	point70	70	3,231,580.2	1,377,920.4	0.00				Average	
		point69	69	3,231,562.0	1,378,001.0	0.00				Average	
		point68	68	3,231,542.2	1,378,081.8	0.00				Average	
		point67	67	3,231,509.0	1,378,171.8	0.00				Average	
		point66	66	3,231,478.8	1,378,241.6	0.00				Average	
		point65	65	3,231,447.0	1,378,299.2	0.00				Average	



**INPUT: ROADWAYS**

**Constitution Avenue**

		point64	64	3,231,419.5	1,378,347.5	0.00				Average
		point63	63	3,231,401.5	1,378,393.2	0.00				Average
		point62	62	3,231,380.5	1,378,460.4	0.00				Average
		point61	61	3,231,370.2	1,378,546.6	0.00				Average
		point60	60	3,231,368.2	1,378,774.4	0.00				Average
		point59	59	3,231,364.5	1,379,208.4	0.00				
Akers Dr SB	14.0	point83	83	3,231,333.2	1,379,210.8	0.00				Average
		point82	82	3,231,336.8	1,378,825.4	0.00				Average
		point81	81	3,231,340.0	1,378,607.0	0.00				Average
		point80	80	3,231,340.8	1,378,523.4	0.00				Average
		point79	79	3,231,349.8	1,378,429.1	0.00				Average
		point78	78	3,231,369.5	1,378,349.8	0.00				Average
		point77	77	3,231,406.5	1,378,296.2	0.00				Average
		point76	76	3,231,451.5	1,378,238.6	0.00				Average
		point75	75	3,231,488.8	1,378,178.4	0.00				Average
		point74	74	3,231,515.0	1,378,111.1	0.00				Average
		point73	73	3,231,536.0	1,378,038.6	0.00				Average
		point72	72	3,231,544.8	1,377,957.8	0.00				Average
		point71	71	3,231,549.2	1,377,898.5	0.00				
SB Marksheffel RT Lane	14.0	point92	92	3,232,608.2	1,379,339.9	0.00				Average
		point91	91	3,232,611.0	1,379,151.1	0.00				Average
		point90	90	3,232,610.5	1,378,915.2	0.00				Average
		point89	89	3,232,608.5	1,378,680.2	0.00				Average
		point88	88	3,232,600.8	1,378,494.8	0.00				Average
		point87	87	3,232,600.2	1,378,371.0	0.00				Average
		point86	86	3,232,601.0	1,378,174.6	0.00				Average
		point85	85	3,232,603.8	1,378,054.2	0.00				Average
		point84	84	3,232,597.8	1,377,990.1	0.00				
SB Marksheffel Lanes	24.0	point93	93	3,232,628.0	1,379,226.4	0.00	Signal	0.00	50	Average
		point94	94	3,232,628.0	1,378,971.6	0.00				Average
		point95	95	3,232,625.8	1,378,717.0	0.00				Average
		point96	96	3,232,624.2	1,378,462.2	0.00				Average
		point97	97	3,232,624.0	1,378,207.5	0.00				Average
		point98	98	3,232,627.0	1,377,952.9	0.00				
SB Marksheffel Lanes south of const	24.0	point102	102	3,232,627.0	1,377,827.2	0.00	Signal	0.00	50	Average
		point101	101	3,232,627.5	1,377,572.5	0.00				Average
		point100	100	3,232,628.8	1,377,317.8	0.00				Average
		point99	99	3,232,638.0	1,377,063.2	0.00				
NB Marksheffel Lanes	24.0	point103	103	3,232,715.8	1,377,061.2	0.00	Signal	0.00	50	Average

**INPUT: ROADWAYS**

**Constitution Avenue**

		point104	104	3,232,710.5	1,377,316.0	0.00				Average
		point105	105	3,232,706.5	1,377,570.6	0.00				Average
		point106	106	3,232,705.0	1,377,825.4	0.00				
NB Marksheffel Lanes north of Const	24.0	point112	112	3,232,704.0	1,377,940.9	0.00	Signal	0.00	50	Average
		point111	111	3,232,702.2	1,378,195.6	0.00				Average
		point110	110	3,232,701.2	1,378,450.2	0.00				Average
		point109	109	3,232,708.2	1,378,705.0	0.00				Average
		point108	108	3,232,712.0	1,378,959.6	0.00				Average
		point107	107	3,232,711.5	1,379,214.4	0.00				
EB Constitution LT Lane	14.0	point116	116	3,232,040.2	1,377,863.6	0.00				Average
		point115	115	3,232,151.8	1,377,869.8	0.00				Average
		point114	114	3,232,381.8	1,377,872.6	0.00				Average
		point113	113	3,232,584.8	1,377,877.0	0.00				
WB Constitution LT Lane	14.0	point120	120	3,233,250.2	1,377,903.1	0.00				Average
		point119	119	3,233,119.2	1,377,895.2	0.00				Average
		point118	118	3,232,963.8	1,377,892.1	0.00				Average
		point117	117	3,232,746.2	1,377,891.9	0.00				
NB Marksheffel LT Lane	14.0	point121	121	3,232,698.2	1,377,065.4	0.00				Average
		point122	122	3,232,674.0	1,377,315.6	0.00				Average
		point123	123	3,232,671.5	1,377,570.4	0.00				Average
		point124	124	3,232,668.5	1,377,825.1	0.00				
SB Marksheffel LT Lane	14.0	point125	125	3,232,643.2	1,378,959.8	0.00				Average
		point126	126	3,232,662.0	1,378,719.0	0.00				Average
		point127	127	3,232,658.2	1,378,464.2	0.00				Average
		point128	128	3,232,659.0	1,378,209.5	0.00				Average
		point129	129	3,232,660.8	1,377,954.8	0.00				
NB Marksheffel to EB Constitution	14.0	point144	144	3,232,722.2	1,377,442.4	0.00				Average
		point143	143	3,232,726.8	1,377,504.8	0.00				Average
		point142	142	3,232,723.2	1,377,699.2	0.00				Average
		point141	141	3,232,723.8	1,377,750.8	0.00				Average
		point140	140	3,232,733.5	1,377,785.4	0.00				Average
		point139	139	3,232,752.0	1,377,815.0	0.00				Average
		point138	138	3,232,783.8	1,377,836.4	0.00				Average
		point137	137	3,232,822.8	1,377,842.6	0.00				Average
		point136	136	3,233,027.5	1,377,844.4	0.00				Average
		point135	135	3,233,301.5	1,377,847.8	0.00				Average
		point134	134	3,233,537.5	1,377,850.8	0.00				Average
		point133	133	3,233,634.8	1,377,850.8	0.00				Average
		point132	132	3,233,671.2	1,377,841.0	0.00				Average

**INPUT: ROADWAYS**

**Constitution Avenue**

		point131	131	3,233,702.8	1,377,820.2	0.00				Average	
		point130	130	3,233,722.5	1,377,793.4	0.00					
WB Constitution to NB Marksheffel	14.0	point157	157	3,233,676.5	1,377,933.1	0.00				Average	
		point156	156	3,233,371.0	1,377,929.5	0.00				Average	
		point155	155	3,233,240.8	1,377,927.5	0.00				Average	
		point154	154	3,233,021.8	1,377,925.5	0.00				Average	
		point153	153	3,232,873.8	1,377,924.2	0.00				Average	
		point152	152	3,232,808.5	1,377,928.6	0.00				Average	
		point151	151	3,232,775.5	1,377,940.1	0.00				Average	
		point150	150	3,232,744.8	1,377,968.5	0.00				Average	
		point149	149	3,232,725.8	1,378,006.2	0.00				Average	
		point148	148	3,232,722.8	1,378,066.1	0.00				Average	
		point147	147	3,232,724.5	1,378,238.0	0.00				Average	
		point146	146	3,232,723.5	1,378,409.6	0.00				Average	
		point145	145	3,232,721.5	1,378,543.1	0.00					
SB Marksheffel Turn Lane	14.0	point158	158	3,232,617.2	1,377,502.0	0.00				Average	
		point159	159	3,232,609.8	1,377,405.0	0.00				Average	
		point160	160	3,232,618.2	1,377,111.0	0.00					

INPUT: TRAFFIC FOR LAeq1h Volumes

Constitution Avenue

Kimley-Horn		27 January 2022										
AH		TNM 2.5										
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:		Constitution Avenue										
RUN:		2045 No-Build										
Roadway	Points											
Name	Name	No.	Segment		MTrucks		HTrucks		Buses		Motorcycles	
			Autos		V	S	V	S	V	S	V	S
			V	S	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
EB Constitution Lanes	point13	13	1098	50	10	50	10	50	0	0	0	0
	point12	12	1098	50	10	50	10	50	0	0	0	0
	point11	11	1098	50	10	50	10	50	0	0	0	0
	point10	10	1098	50	10	50	10	50	0	0	0	0
	point9	9	1098	50	10	50	10	50	0	0	0	0
	point8	8	1098	50	10	50	10	50	0	0	0	0
	point7	7	1098	50	10	50	10	50	0	0	0	0
	point6	6	1098	50	10	50	10	50	0	0	0	0
	point5	5	1098	50	10	50	10	50	0	0	0	0
	point4	4	1098	50	10	50	10	50	0	0	0	0
	point3	3	1098	50	10	50	10	50	0	0	0	0
	point2	2	1098	50	10	50	10	50	0	0	0	0
	point1	1										
WB Constitution Lanes	point14	14	1115	50	10	50	10	50	0	0	0	0
	point15	15	1115	50	10	50	10	50	0	0	0	0
	point16	16	1115	50	10	50	10	50	0	0	0	0
	point17	17	1115	50	10	50	10	50	0	0	0	0
	point18	18	1115	50	10	50	10	50	0	0	0	0
	point19	19	1115	50	10	50	10	50	0	0	0	0
	point20	20	1115	50	10	50	10	50	0	0	0	0
	point21	21	1115	50	10	50	10	50	0	0	0	0
	point22	22	1115	50	10	50	10	50	0	0	0	0
	point23	23	1115	50	10	50	10	50	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point24	24	1115	50	10	50	10	50	0	0	0	0
	point25	25	1115	50	10	50	10	50	0	0	0	0
	point26	26										
EB Constitution Turn Lane	point36	36	0	0	0	0	0	0	0	0	0	0
	point35	35	0	0	0	0	0	0	0	0	0	0
	point34	34	0	0	0	0	0	0	0	0	0	0
	point33	33	0	0	0	0	0	0	0	0	0	0
	point32	32	0	0	0	0	0	0	0	0	0	0
	point31	31	0	0	0	0	0	0	0	0	0	0
	point30	30	0	0	0	0	0	0	0	0	0	0
	point29	29	0	0	0	0	0	0	0	0	0	0
	point28	28	0	0	0	0	0	0	0	0	0	0
	point27	27										
WB Constitution Turn Lane	point37	37	0	0	0	0	0	0	0	0	0	0
	point38	38	0	0	0	0	0	0	0	0	0	0
	point39	39	0	0	0	0	0	0	0	0	0	0
	point40	40	0	0	0	0	0	0	0	0	0	0
	point41	41	0	0	0	0	0	0	0	0	0	0
	point42	42	0	0	0	0	0	0	0	0	0	0
	point43	43	0	0	0	0	0	0	0	0	0	0
	point44	44	0	0	0	0	0	0	0	0	0	0
	point45	45	0	0	0	0	0	0	0	0	0	0
	point46	46										
Akers SB to Const WB	point58	58	0	0	0	0	0	0	0	0	0	0
	point57	57	0	0	0	0	0	0	0	0	0	0
	point56	56	0	0	0	0	0	0	0	0	0	0
	point55	55	0	0	0	0	0	0	0	0	0	0
	point54	54	0	0	0	0	0	0	0	0	0	0
	point53	53	0	0	0	0	0	0	0	0	0	0
	point52	52	0	0	0	0	0	0	0	0	0	0
	point51	51	0	0	0	0	0	0	0	0	0	0
	point50	50	0	0	0	0	0	0	0	0	0	0
	point49	49	0	0	0	0	0	0	0	0	0	0
	point48	48	0	0	0	0	0	0	0	0	0	0
	point47	47										
Akers Dr NB	point70	70	79	35	0	0	0	0	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point69	69	79	35	0	0	0	0	0	0	0	0
	point68	68	79	35	0	0	0	0	0	0	0	0
	point67	67	79	35	0	0	0	0	0	0	0	0
	point66	66	79	35	0	0	0	0	0	0	0	0
	point65	65	79	35	0	0	0	0	0	0	0	0
	point64	64	79	35	0	0	0	0	0	0	0	0
	point63	63	79	35	0	0	0	0	0	0	0	0
	point62	62	79	35	0	0	0	0	0	0	0	0
	point61	61	79	35	0	0	0	0	0	0	0	0
	point60	60	79	35	0	0	0	0	0	0	0	0
	point59	59										
Akers Dr SB	point83	83	102	35	0	0	0	0	0	0	0	0
	point82	82	102	35	0	0	0	0	0	0	0	0
	point81	81	102	35	0	0	0	0	0	0	0	0
	point80	80	102	35	0	0	0	0	0	0	0	0
	point79	79	102	35	0	0	0	0	0	0	0	0
	point78	78	102	35	0	0	0	0	0	0	0	0
	point77	77	102	35	0	0	0	0	0	0	0	0
	point76	76	102	35	0	0	0	0	0	0	0	0
	point75	75	102	35	0	0	0	0	0	0	0	0
	point74	74	102	35	0	0	0	0	0	0	0	0
	point73	73	102	35	0	0	0	0	0	0	0	0
	point72	72	102	35	0	0	0	0	0	0	0	0
	point71	71										
SB Marksheffel RT Lane	point92	92	0	0	0	0	0	0	0	0	0	0
	point91	91	0	0	0	0	0	0	0	0	0	0
	point90	90	0	0	0	0	0	0	0	0	0	0
	point89	89	0	0	0	0	0	0	0	0	0	0
	point88	88	0	0	0	0	0	0	0	0	0	0
	point87	87	0	0	0	0	0	0	0	0	0	0
	point86	86	0	0	0	0	0	0	0	0	0	0
	point85	85	0	0	0	0	0	0	0	0	0	0
	point84	84										
SB Marksheffel Lanes	point93	93	1234	50	10	50	10	50	0	0	0	0
	point94	94	1234	50	10	50	10	50	0	0	0	0
	point95	95	1234	50	10	50	10	50	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point96	96	1234	50	10	50	10	50	0	0	0	0
	point97	97	1234	50	10	50	10	50	0	0	0	0
	point98	98										
SB Marksheffel Lanes south of const	point102	102	1299	50	10	50	10	50	0	0	0	0
	point101	101	106	50	10	50	10	50	0	0	0	0
	point100	100	1299	50	10	50	10	50	0	0	0	0
	point99	99										
NB Marksheffel Lanes	point103	103	1948	50	20	50	20	50	0	0	0	0
	point104	104	1948	50	20	50	20	50	0	0	0	0
	point105	105	1948	50	20	50	20	50	0	0	0	0
	point106	106										
NB Marksheffel Lanes north of Const	point112	112	1916	50	20	50	20	50	0	0	0	0
	point111	111	1916	50	20	50	20	50	0	0	0	0
	point110	110	1916	50	20	50	20	50	0	0	0	0
	point109	109	1916	50	20	50	20	50	0	0	0	0
	point108	108	1916	50	20	50	20	50	0	0	0	0
	point107	107										
EB Constitution LT Lane	point116	116	0	0	0	0	0	0	0	0	0	0
	point115	115	0	0	0	0	0	0	0	0	0	0
	point114	114	0	0	0	0	0	0	0	0	0	0
	point113	113										
WB Constitution LT Lane	point120	120	0	0	0	0	0	0	0	0	0	0
	point119	119	0	0	0	0	0	0	0	0	0	0
	point118	118	0	0	0	0	0	0	0	0	0	0
	point117	117										
NB Marksheffel LT Lane	point121	121	0	0	0	0	0	0	0	0	0	0
	point122	122	0	0	0	0	0	0	0	0	0	0
	point123	123	0	0	0	0	0	0	0	0	0	0
	point124	124										
SB Marksheffel LT Lane	point125	125	0	0	0	0	0	0	0	0	0	0
	point126	126	0	0	0	0	0	0	0	0	0	0
	point127	127	0	0	0	0	0	0	0	0	0	0
	point128	128	0	0	0	0	0	0	0	0	0	0
	point129	129										
NB Marksheffel to EB Constitution	point144	144	0	0	0	0	0	0	0	0	0	0
	point143	143	0	0	0	0	0	0	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point142	142	0	0	0	0	0	0	0	0	0	0
	point141	141	0	0	0	0	0	0	0	0	0	0
	point140	140	0	0	0	0	0	0	0	0	0	0
	point139	139	0	0	0	0	0	0	0	0	0	0
	point138	138	0	0	0	0	0	0	0	0	0	0
	point137	137	0	0	0	0	0	0	0	0	0	0
	point136	136	0	0	0	0	0	0	0	0	0	0
	point135	135	0	0	0	0	0	0	0	0	0	0
	point134	134	0	0	0	0	0	0	0	0	0	0
	point133	133	0	0	0	0	0	0	0	0	0	0
	point132	132	0	0	0	0	0	0	0	0	0	0
	point131	131	0	0	0	0	0	0	0	0	0	0
	point130	130										
WB Constitution to NB Marksheffel	point157	157	0	0	0	0	0	0	0	0	0	0
	point156	156	0	0	0	0	0	0	0	0	0	0
	point155	155	0	0	0	0	0	0	0	0	0	0
	point154	154	0	0	0	0	0	0	0	0	0	0
	point153	153	0	0	0	0	0	0	0	0	0	0
	point152	152	0	0	0	0	0	0	0	0	0	0
	point151	151	0	0	0	0	0	0	0	0	0	0
	point150	150	0	0	0	0	0	0	0	0	0	0
	point149	149	0	0	0	0	0	0	0	0	0	0
	point148	148	0	0	0	0	0	0	0	0	0	0
	point147	147	0	0	0	0	0	0	0	0	0	0
	point146	146	0	0	0	0	0	0	0	0	0	0
	point145	145										
SB Marksheffel Turn Lane	point158	158	0	0	0	0	0	0	0	0	0	0
	point159	159	0	0	0	0	0	0	0	0	0	0
	point160	160										



**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

Kimley-Horn		27 January 2022												
AH		TNM 2.5												
INPUT: TRAFFIC FOR LAeq1h Volumes														
PROJECT/CONTRACT:		Constitution Avenue												
RUN:		2045 No-Build												
<b>Roadway</b>	<b>Points</b>													
<b>Name</b>	<b>Name</b>	<b>No.</b>	<b>Segment</b>		<b>User 1</b>		<b>User 2</b>		<b>User 3</b>		<b>User 4</b>		<b>&lt;unknown&gt;</b>	
			<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
EB Constitution Lanes	point13	13												
	point12	12												
	point11	11												
	point10	10												
	point9	9												
	point8	8												
	point7	7												
	point6	6												
	point5	5												
	point4	4												
	point3	3												
	point2	2												
	point1	1												
WB Constitution Lanes	point14	14												
	point15	15												
	point16	16												
	point17	17												
	point18	18												
	point19	19												
	point20	20												
	point21	21												
	point22	22												
	point23	23												

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point24	24											
	point25	25											
	point26	26											
EB Constitution Turn Lane	point36	36											
	point35	35											
	point34	34											
	point33	33											
	point32	32											
	point31	31											
	point30	30											
	point29	29											
	point28	28											
	point27	27											
WB Constitution Turn Lane	point37	37											
	point38	38											
	point39	39											
	point40	40											
	point41	41											
	point42	42											
	point43	43											
	point44	44											
	point45	45											
	point46	46											
Akers SB to Const WB	point58	58											
	point57	57											
	point56	56											
	point55	55											
	point54	54											
	point53	53											
	point52	52											
	point51	51											
	point50	50											
	point49	49											
	point48	48											
	point47	47											
Akers Dr NB	point70	70											

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point69	69												
	point68	68												
	point67	67												
	point66	66												
	point65	65												
	point64	64												
	point63	63												
	point62	62												
	point61	61												
	point60	60												
	point59	59												
Akers Dr SB	point83	83												
	point82	82												
	point81	81												
	point80	80												
	point79	79												
	point78	78												
	point77	77												
	point76	76												
	point75	75												
	point74	74												
	point73	73												
	point72	72												
	point71	71												
SB Marksheffel RT Lane	point92	92												
	point91	91												
	point90	90												
	point89	89												
	point88	88												
	point87	87												
	point86	86												
	point85	85												
	point84	84												
SB Marksheffel Lanes	point93	93												
	point94	94												
	point95	95												

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point96	96											
	point97	97											
	point98	98											
SB Marksheffel Lanes south of const	point102	102											
	point101	101											
	point100	100											
	point99	99											
NB Marksheffel Lanes	point103	103											
	point104	104											
	point105	105											
	point106	106											
NB Marksheffel Lanes north of Const	point112	112											
	point111	111											
	point110	110											
	point109	109											
	point108	108											
	point107	107											
EB Constitution LT Lane	point116	116											
	point115	115											
	point114	114											
	point113	113											
WB Constitution LT Lane	point120	120											
	point119	119											
	point118	118											
	point117	117											
NB Marksheffel LT Lane	point121	121											
	point122	122											
	point123	123											
	point124	124											
SB Marksheffel LT Lane	point125	125											
	point126	126											
	point127	127											
	point128	128											
	point129	129											
NB Marksheffel to EB Constitution	point144	144											
	point143	143											

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point142	142											
	point141	141											
	point140	140											
	point139	139											
	point138	138											
	point137	137											
	point136	136											
	point135	135											
	point134	134											
	point133	133											
	point132	132											
	point131	131											
	point130	130											
WB Constitution to NB Marksheffel	point157	157											
	point156	156											
	point155	155											
	point154	154											
	point153	153											
	point152	152											
	point151	151											
	point150	150											
	point149	149											
	point148	148											
	point147	147											
	point146	146											
	point145	145											
SB Marksheffel Turn Lane	point158	158											
	point159	159											
	point160	160											



**INPUT: RECEIVERS**

**Constitution Avenue**

147	23	1	3,231,910.0	1,377,540.0	0.00	4.92	0.00	66	10.0	8.0	Y
148	24	1	3,231,900.0	1,377,480.0	0.00	4.92	0.00	66	10.0	8.0	Y
149	25	1	3,231,840.0	1,377,480.0	0.00	4.92	0.00	66	10.0	8.0	Y
150	26	1	3,231,840.0	1,377,540.0	0.00	4.92	0.00	66	10.0	8.0	Y
151	27	1	3,231,840.0	1,377,580.0	0.00	4.92	0.00	66	10.0	8.0	Y
152	28	1	3,231,840.0	1,377,610.0	0.00	4.92	0.00	66	10.0	8.0	Y
153	29	1	3,231,840.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
154	30	1	3,232,310.0	1,377,770.0	0.00	4.92	0.00	66	10.0	8.0	Y
155	31	1	3,232,340.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
156	32	1	3,232,380.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
157	33	1	3,232,440.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
158	34	1	3,232,460.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
159	35	1	3,232,500.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
160	36	1	3,232,530.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
161	37	1	3,232,540.0	1,377,730.0	0.00	4.92	0.00	66	10.0	8.0	Y
162	38	1	3,232,550.0	1,377,680.0	0.00	4.92	0.00	66	10.0	8.0	Y
163	39	1	3,232,550.0	1,377,610.0	0.00	4.92	0.00	66	10.0	8.0	Y
164	40	1	3,232,550.0	1,377,530.0	0.00	4.92	0.00	66	10.0	8.0	Y
165	41	1	3,232,550.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
166	42	1	3,232,490.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
167	43	1	3,232,480.0	1,377,570.0	0.00	4.92	0.00	66	10.0	8.0	Y
168	44	1	3,232,480.0	1,377,620.0	0.00	4.92	0.00	66	10.0	8.0	Y
169	45	1	3,232,470.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
170	46	1	3,232,400.0	1,377,710.0	0.00	4.92	0.00	66	10.0	8.0	Y
171	47	1	3,232,340.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
172	48	1	3,232,330.0	1,377,660.0	0.00	4.92	0.00	66	10.0	8.0	Y
173	49	1	3,232,330.0	1,377,620.0	0.00	4.92	0.00	66	10.0	8.0	Y
174	50	1	3,232,330.0	1,377,570.0	0.00	4.92	0.00	66	10.0	8.0	Y
175	51	1	3,232,330.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
176	52	1	3,232,270.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
177	53	1	3,232,260.0	1,377,540.0	0.00	4.92	0.00	66	10.0	8.0	Y
178	54	1	3,232,260.0	1,377,600.0	0.00	4.92	0.00	66	10.0	8.0	Y
179	55	1	3,232,260.0	1,377,690.0	0.00	4.92	0.00	66	10.0	8.0	Y
180	56	1	3,232,270.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
181	57	1	3,231,840.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
182	58	1	3,231,840.0	1,377,610.0	0.00	14.92	0.00	66	10.0	8.0	Y

**INPUT: RECEIVERS**

**Constitution Avenue**

183	59	1	3,231,840.0	1,377,580.0	0.00	14.92	0.00	66	10.0	8.0	Y
184	60	1	3,231,840.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
185	61	1	3,231,840.0	1,377,480.0	0.00	14.92	0.00	66	10.0	8.0	Y
186	62	1	3,231,900.0	1,377,480.0	0.00	14.92	0.00	66	10.0	8.0	Y
187	63	1	3,231,910.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
188	64	1	3,231,910.0	1,377,600.0	0.00	14.92	0.00	66	10.0	8.0	Y
189	65	1	3,231,910.0	1,377,660.0	0.00	14.92	0.00	66	10.0	8.0	Y
190	66	1	3,231,920.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y
191	67	1	3,231,960.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y
192	68	1	3,232,000.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y
193	69	1	3,232,040.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
194	70	1	3,232,050.0	1,377,660.0	0.00	14.92	0.00	66	10.0	8.0	Y
195	71	1	3,232,050.0	1,377,600.0	0.00	14.92	0.00	66	10.0	8.0	Y
196	72	1	3,232,050.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
197	73	1	3,232,060.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
198	74	1	3,232,120.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
199	75	1	3,232,120.0	1,377,550.0	0.00	14.92	0.00	66	10.0	8.0	Y
200	76	1	3,232,120.0	1,377,610.0	0.00	14.92	0.00	66	10.0	8.0	Y
201	77	1	3,232,120.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
202	78	1	3,232,110.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
203	79	1	3,232,080.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
204	80	1	3,232,040.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
205	81	1	3,232,010.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
206	82	1	3,231,950.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
207	83	1	3,231,920.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
208	84	1	3,232,270.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
209	85	1	3,232,260.0	1,377,690.0	0.00	14.92	0.00	66	10.0	8.0	Y
210	86	1	3,232,260.0	1,377,600.0	0.00	14.92	0.00	66	10.0	8.0	Y
211	87	1	3,232,260.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
212	88	1	3,232,270.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
213	89	1	3,232,330.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
214	90	1	3,232,330.0	1,377,570.0	0.00	14.92	0.00	66	10.0	8.0	Y
215	91	1	3,232,330.0	1,377,620.0	0.00	14.92	0.00	66	10.0	8.0	Y
216	92	1	3,232,330.0	1,377,660.0	0.00	14.92	0.00	66	10.0	8.0	Y
217	93	1	3,232,340.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
218	94	1	3,232,400.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y



**INPUT: RECEIVERS**

**Constitution Avenue**

219	95	1	3,232,470.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
220	96	1	3,232,480.0	1,377,620.0	0.00	14.92	0.00	66	10.0	8.0	Y
221	97	1	3,232,480.0	1,377,570.0	0.00	14.92	0.00	66	10.0	8.0	Y
222	98	1	3,232,490.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
223	99	1	3,232,550.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
224	100	1	3,232,550.0	1,377,530.0	0.00	14.92	0.00	66	10.0	8.0	Y
225	101	1	3,232,550.0	1,377,610.0	0.00	14.92	0.00	66	10.0	8.0	Y
226	102	1	3,232,550.0	1,377,680.0	0.00	14.92	0.00	66	10.0	8.0	Y
227	103	1	3,232,540.0	1,377,730.0	0.00	14.92	0.00	66	10.0	8.0	Y
228	104	1	3,232,530.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
229	105	1	3,232,500.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
230	106	1	3,232,460.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
231	107	1	3,232,440.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
232	108	1	3,232,380.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
233	109	1	3,232,340.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
234	111	1	3,232,310.0	1,377,770.0	0.00	14.92	0.00	66	10.0	8.0	Y
235	112	1	3,231,840.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
236	113	1	3,231,840.0	1,377,610.0	0.00	24.92	0.00	66	10.0	8.0	Y
237	114	1	3,231,840.0	1,377,580.0	0.00	24.92	0.00	66	10.0	8.0	Y
238	115	1	3,231,840.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
239	116	1	3,231,840.0	1,377,480.0	0.00	24.92	0.00	66	10.0	8.0	Y
240	117	1	3,231,900.0	1,377,480.0	0.00	24.92	0.00	66	10.0	8.0	Y
241	118	1	3,231,910.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
242	119	1	3,231,910.0	1,377,600.0	0.00	24.92	0.00	66	10.0	8.0	Y
243	120	1	3,231,910.0	1,377,660.0	0.00	24.92	0.00	66	10.0	8.0	Y
244	121	1	3,231,960.0	1,377,710.0	0.00	24.92	0.00	66	10.0	8.0	Y
245	122	1	3,232,000.0	1,377,710.0	0.00	24.92	0.00	66	10.0	8.0	Y
246	123	1	3,232,040.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
247	124	1	3,232,050.0	1,377,660.0	0.00	24.92	0.00	66	10.0	8.0	Y
248	125	1	3,232,050.0	1,377,600.0	0.00	24.92	0.00	66	10.0	8.0	Y
249	126	1	3,232,050.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
250	127	1	3,232,060.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
251	128	1	3,232,120.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
252	129	1	3,232,120.0	1,377,550.0	0.00	24.92	0.00	66	10.0	8.0	Y
253	130	1	3,232,120.0	1,377,610.0	0.00	24.92	0.00	66	10.0	8.0	Y
254	131	1	3,232,120.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y

**INPUT: RECEIVERS****Constitution Avenue**

255	132	1	3,232,110.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
256	133	1	3,232,080.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
257	134	1	3,232,040.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
258	135	1	3,232,010.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
259	136	1	3,231,950.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
260	137	1	3,232,270.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
261	138	1	3,232,260.0	1,377,690.0	0.00	24.92	0.00	66	10.0	8.0	Y
262	139	1	3,232,260.0	1,377,600.0	0.00	24.92	0.00	66	10.0	8.0	Y
263	140	1	3,232,260.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
264	141	1	3,232,270.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
265	142	1	3,232,330.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
266	143	1	3,232,340.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
267	144	1	3,232,470.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
268	145	1	3,232,490.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
269	146	1	3,232,550.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
270	147	1	3,232,550.0	1,377,530.0	0.00	24.92	0.00	66	10.0	8.0	Y
271	148	1	3,232,550.0	1,377,610.0	0.00	24.92	0.00	66	10.0	8.0	Y
272	149	1	3,232,550.0	1,377,680.0	0.00	24.92	0.00	66	10.0	8.0	Y
273	150	1	3,232,540.0	1,377,730.0	0.00	24.92	0.00	66	10.0	8.0	Y
274	151	1	3,232,530.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
275	152	1	3,232,500.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
276	153	1	3,232,460.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
277	154	1	3,232,440.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
278	155	1	3,232,380.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
279	156	1	3,232,340.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
280	157	1	3,232,310.0	1,377,770.0	0.00	24.92	0.00	66	10.0	8.0	Y

INPUT: BARRIERS

Constitution Avenue

Kimley-Horn	27 January 2022
AH	TNM 2.5

INPUT: BARRIERS

PROJECT/CONTRACT: Constitution Avenue

RUN: 2045 No-Build

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	\$ per	\$ per	Top	Run:Rise	\$ per			X	Y	Z	at	Seg	Ht	Perturbs	On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
		ft	ft	Area	Vol.	ft	ft:ft	Length			ft	ft	ft	ft	ment				tions?
				\$/sq ft	\$/cu yd			\$/ft											
<< This table is empty >>																			

**INPUT: BUILDING ROWS**

**Constitution Avenue**

Kimley-Horn					27 January 2022	
AH					TNM 2.5	
<b>INPUT: BUILDING ROWS</b>						
<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>					
<b>RUN:</b>	<b>2045 No-Build</b>					
<b>Building Row</b>			<b>Points</b>			
<b>Name</b>	<b>Average Height</b>	<b>Building Percent</b>	<b>No.</b>	<b>Coordinates (ground)</b>		
				<b>X</b>	<b>Y</b>	<b>Z</b>
	ft	%		ft	ft	ft
<< This table is empty >>						

**INPUT: TERRAIN LINES**

Kimley-Horn				27 January 2022
AH				TNM 2.5
<b>INPUT: TERRAIN LINES</b>				
<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>			
<b>RUN:</b>	<b>2045 No-Build</b>			
<b>Terrain Line</b>	<b>Points</b>			
<b>Name</b>	<b>No.</b>	<b>Coordinates (ground)</b>		
		<b>X</b>	<b>Y</b>	<b>Z</b>
		ft	ft	ft
<< This table is empty >>				

**Constitution Avenue**

**INPUT: GROUND ZONES**

**Constitution Avenue**

Kimley-Horn AH			27 January 2022 TNM 2.5		
INPUT: GROUND ZONES					
PROJECT/CONTRACT:		Constitution Avenue			
RUN:		2045 No-Build			
Ground Zone			Points		
Name	Type	Flow Resistivity	No.	Coordinates	
		cgs rayls		X	Y
				ft	ft
Ground Zone1	Pavement	20000	15	3,230,793.0	1,377,906.5
			16	3,231,422.8	1,377,914.9
			17	3,231,472.8	1,377,939.9
			18	3,231,472.8	1,378,010.8
			19	3,231,406.0	1,378,223.5
			20	3,231,335.2	1,378,340.2
			21	3,231,326.8	1,378,452.9
			22	3,231,406.0	1,378,457.0
			23	3,231,435.2	1,378,361.1
			24	3,231,518.8	1,378,215.1
			25	3,231,568.8	1,378,056.6
			26	3,231,589.5	1,377,960.8
			27	3,231,602.0	1,377,931.6
			57	3,231,960.8	1,377,927.4
			56	3,232,498.8	1,377,939.9
			55	3,232,557.0	1,377,969.1
			54	3,232,586.2	1,378,023.4
			53	3,232,586.2	1,378,628.0
			52	3,232,598.8	1,379,070.1
			51	3,232,723.8	1,379,061.8
			50	3,232,736.2	1,378,444.5
			49	3,232,736.2	1,378,040.0
			48	3,232,761.5	1,377,977.5

**INPUT: GROUND ZONES**

**Constitution Avenue**

			47	3,232,803.0	1,377,939.9
			46	3,233,232.8	1,377,944.1
			45	3,233,578.8	1,377,944.1
			44	3,233,583.0	1,377,844.0
			43	3,233,299.2	1,377,835.6
			42	3,232,824.0	1,377,827.4
			41	3,232,761.5	1,377,810.6
			40	3,232,740.5	1,377,764.8
			39	3,232,740.5	1,377,189.2
			38	3,232,598.8	1,377,201.8
			37	3,232,594.5	1,377,735.6
			36	3,232,590.5	1,377,785.6
			28	3,232,544.5	1,377,819.0
			29	3,232,457.0	1,377,814.8
			30	3,231,681.2	1,377,802.2
			31	3,230,809.8	1,377,794.0

**INPUT: TREE ZONES**

**Constitution Avenue**

Kimley-Horn						27 January 2022
AH						TNM 2.5
<b>INPUT: TREE ZONES</b>						
<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>					
<b>RUN:</b>	<b>2045 No-Build</b>					
<b>Tree Zone</b>		<b>Points</b>				
<b>Name</b>	<b>Average</b>	<b>No.</b>	<b>Coordinates (ground)</b>			
	<b>Height</b>		<b>X</b>	<b>Y</b>	<b>Z</b>	
	ft		ft	ft	ft	
<< This table is empty >>						



**INPUT: CONTOUR ZONES**

**Constitution Avenue**

<b>Kimley-Horn</b>				<b>27 January 2022</b>	
<b>AH</b>				<b>TNM 2.5</b>	
<b>INPUT: CONTOUR ZONES</b>					
<b>PROJECT/CONTRACT:</b>		<b>Constitution Avenue</b>			
<b>RUN:</b>		<b>2045 No-Build</b>			
<b>Contour Zone</b>				<b>Points</b>	
<b>Name</b>	<b>Grid Height</b>	<b>Minimum Grid Spacing</b>	<b>Contour Tolerance</b>	<b>No.</b>	<b>Coordinates</b>
					<b>X Y</b>
	ft	ft	dB		ft ft
<b>&lt;&lt; This table is empty &gt;&gt;</b>					

**INPUT: RECEIVER ADJUSTMENT FACTORS**

**Constitution Avenue**

Kimley-Horn AH			27 January 2022 TNM 2.5		
<b>INPUT: RECEIVER ADJUSTMENT FACTORS</b>					
<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>				
<b>RUN:</b>	<b>2045 No-Build</b>				
<b>Receiver</b>					
<b>Name</b>	<b>No.</b>	<b>Individual Roadway Segment Adjustment Factors</b>			
		<b>Roadway</b>	<b>Segment</b>		
		<b>Name</b>	<b>Name</b>	<b>No.</b>	<b>Adj. Factor</b>
					<b>dB</b>
<b>&lt;&lt; This table is empty &gt;&gt;</b>					

**INPUT: "STRUCTURE" BARRIERS**

**Constitution Avenue**

Kimley-Horn			27 January 2022		
AH			TNM 2.5		
<b>INPUT: "STRUCTURE" BARRIERS</b>					
<b>PROJECT/CONTRACT:</b>		Constitution Avenue			
<b>RUN:</b>		2045 No-Build			
<b>Barrier</b>	<b>Segments</b>		<b>Shielded Roadways</b>		<b>Segments</b>
<b>Name</b>	<b>Name</b>	<b>No.</b>	<b>Name</b>	<b>Name</b>	<b>No.</b>
<< This table is empty >>					

**INPUT: BARRIER NOISE REDUCTION COEFFICIENTS**

**Constitution Avenue**

Kimley-Horn					27 January 2022		
AH					TNM 2.5		

**INPUT: BARRIER NOISE REDUCTION COEFFICIENTS**

**PROJECT/CONTRACT:** Constitution Avenue

**RUN:** 2045 No-Build

Barrier		Segments			Reflected Roadways		Segments	
Name	Name	No.	NRC		Name	Name	No.	
			L Side	R Side				

<< This table is empty >>

**RESULTS: BARRIER DESCRIPTIONS**

**Constitution Avenue**

Kimley-Horn				27 January 2022						
AH				TNM 2.5						

**RESULTS: BARRIER DESCRIPTIONS**

<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>									
<b>RUN:</b>	<b>2045 No-Build</b>									
<b>BARRIER DESIGN:</b>	<b>INPUT HEIGHTS</b>									

<b>Barriers</b>										
<b>Name</b>	<b>Type</b>	<b>Heights along Barrier</b>			<b>Length</b>	<b>If Wall</b>		<b>If Berm</b>		<b>Cost</b>
		<b>Min</b>	<b>Avg</b>	<b>Max</b>		<b>Area</b>	<b>Volume</b>	<b>Top</b>	<b>Run:Rise</b>	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	\$
									Total Cost:	0





**RESULTS: SOUND LEVELS**

**Constitution Avenue**

149	25	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
150	26	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
151	27	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
152	28	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
153	29	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
154	30	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
155	31	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
156	32	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
157	33	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
158	34	1	0.0	71.5	66	71.5	10	Snd Lvl	71.5	0.0	8	-8.0
159	35	1	0.0	72.0	66	72.0	10	Snd Lvl	72.0	0.0	8	-8.0
160	36	1	0.0	72.4	66	72.4	10	Snd Lvl	72.4	0.0	8	-8.0
161	37	1	0.0	71.8	66	71.8	10	Snd Lvl	71.8	0.0	8	-8.0
162	38	1	0.0	71.6	66	71.6	10	Snd Lvl	71.6	0.0	8	-8.0
163	39	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	8	-8.0
164	40	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
165	41	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
166	42	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
167	43	1	0.0	69.1	66	69.1	10	Snd Lvl	69.1	0.0	8	-8.0
168	44	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
169	45	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
170	46	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
171	47	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
172	48	1	0.0	68.0	66	68.0	10	Snd Lvl	68.0	0.0	8	-8.0
173	49	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
174	50	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
175	51	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
176	52	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
177	53	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
178	54	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
179	55	1	0.0	68.1	66	68.1	10	Snd Lvl	68.1	0.0	8	-8.0
180	56	1	0.0	70.6	66	70.6	10	Snd Lvl	70.6	0.0	8	-8.0
181	57	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
182	58	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
183	59	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
184	60	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
185	61	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
186	62	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
187	63	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
188	64	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
189	65	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0



**RESULTS: SOUND LEVELS**

**Constitution Avenue**

190	66	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
191	67	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
192	68	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
193	69	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
194	70	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
195	71	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
196	72	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
197	73	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
198	74	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
199	75	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
200	76	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0
201	77	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
202	78	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
203	79	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
204	80	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
205	81	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
206	82	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
207	83	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
208	84	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
209	85	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
210	86	1	0.0	66.3	66	66.3	10	Snd Lvl	66.3	0.0	8	-8.0
211	87	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
212	88	1	0.0	65.3	66	65.3	10	----	65.3	0.0	8	-8.0
213	89	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
214	90	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
215	91	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
216	92	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
217	93	1	0.0	68.2	66	68.2	10	Snd Lvl	68.2	0.0	8	-8.0
218	94	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
219	95	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
220	96	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
221	97	1	0.0	68.5	66	68.5	10	Snd Lvl	68.5	0.0	8	-8.0
222	98	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
223	99	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
224	100	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
225	101	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
226	102	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0
227	103	1	0.0	71.3	66	71.3	10	Snd Lvl	71.3	0.0	8	-8.0
228	104	1	0.0	72.0	66	72.0	10	Snd Lvl	72.0	0.0	8	-8.0
229	105	1	0.0	71.5	66	71.5	10	Snd Lvl	71.5	0.0	8	-8.0
230	106	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0

**RESULTS: SOUND LEVELS**

**Constitution Avenue**

231	107	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
232	108	1	0.0	70.6	66	70.6	10	Snd Lvl	70.6	0.0	8	-8.0
233	109	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
234	111	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
235	112	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0
236	113	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
237	114	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
238	115	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
239	116	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
240	117	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
241	118	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
242	119	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
243	120	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
244	121	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
245	122	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
246	123	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
247	124	1	0.0	66.3	66	66.3	10	Snd Lvl	66.3	0.0	8	-8.0
248	125	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
249	126	1	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
250	127	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
251	128	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
252	129	1	0.0	64.8	66	64.8	10	----	64.8	0.0	8	-8.0
253	130	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
254	131	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
255	132	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
256	133	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
257	134	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
258	135	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
259	136	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
260	137	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
261	138	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
262	139	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
263	140	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
264	141	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
265	142	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0
266	143	1	0.0	68.1	66	68.1	10	Snd Lvl	68.1	0.0	8	-8.0
267	144	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
268	145	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
269	146	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
270	147	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
271	148	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0

**RESULTS: SOUND LEVELS**

**Constitution Avenue**

272	149	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
273	150	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	8	-8.0
274	151	1	0.0	71.8	66	71.8	10	Snd Lvl	71.8	0.0	8	-8.0
275	152	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
276	153	1	0.0	70.9	66	70.9	10	Snd Lvl	70.9	0.0	8	-8.0
277	154	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
278	155	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
279	156	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
280	157	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>									
			<b>Min</b>	<b>Avg</b>	<b>Max</b>							
			<b>dB</b>	<b>dB</b>	<b>dB</b>							
All Selected		156	0.0	0.0	0.0							
All Impacted		110	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT**

**Constitution Avenue**

Kimley-Horn				27 January 2022
AH				TNM 2.5
				Calculated with TNM 2.5

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT**

**PROJECT/CONTRACT:** Constitution Avenue

**RUN:** 2045 No-Build

**BARRIER DESIGN:** INPUT HEIGHTS

**ATMOSPHERICS:** 68 deg F, 50% RH

**Selected Receivers**

Name	No.	Total	Important Barriers	Important Segments		
		LAeq1h	Name	Name	No.	Partial
		dBA				LAeq1h
		dBA				dBA
125	1	68.80				
126	2	70.40				
127	3	70.40				
128	4	70.40				
129	5	70.40				
130	6	70.40				
131	7	70.40				
132	8	70.40				
133	9	67.80				
134	10	66.10				
135	11	65.30				
136	12	64.40				
137	13	64.20				
138	14	64.90				
139	15	65.80				
140	16	66.80				
141	17	67.70				
142	18	67.90				
143	19	67.90				
144	20	67.90				

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT****Constitution Avenue**

145	21	66.70			
146	22	65.50			
147	23	64.60			
148	24	63.60			
149	25	63.50			
150	26	64.50			
151	27	65.10			
152	28	65.60			
153	29	67.60			
154	30	70.30			
155	31	70.80			
156	32	71.00			
157	33	71.40			
158	34	71.50			
159	35	72.00			
160	36	72.40			
161	37	71.80			
162	38	71.60			
163	39	71.20			
164	40	70.80			
165	41	70.70			
166	42	68.80			
167	43	69.10			
168	44	69.40			
169	45	70.10			
170	46	69.40			
171	47	68.80			
172	48	68.00			
173	49	67.50			
174	50	66.90			
175	51	66.10			
176	52	65.40			
177	53	65.90			
178	54	66.60			
179	55	68.10			
180	56	70.60			

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT****Constitution Avenue**

181	57	67.00			
182	58	65.10			
183	59	64.70			
184	60	64.10			
185	61	63.30			
186	62	63.50			
187	63	64.20			
188	64	65.10			
189	65	66.20			
190	66	67.40			
191	67	67.40			
192	68	67.40			
193	69	67.20			
194	70	66.40			
195	71	65.40			
196	72	64.60			
197	73	64.10			
198	74	64.30			
199	75	65.00			
200	76	65.70			
201	77	67.40			
202	78	70.10			
203	79	70.10			
204	80	70.10			
205	81	70.10			
206	82	70.10			
207	83	70.10			
208	84	70.30			
209	85	67.60			
210	86	66.30			
211	87	65.60			
212	88	65.30			
213	89	65.90			
214	90	66.50			
215	91	67.00			
216	92	67.50			

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT****Constitution Avenue**

217	93	68.20			
218	94	68.80			
219	95	69.40			
220	96	68.80			
221	97	68.50			
222	98	68.30			
223	99	70.30			
224	100	70.40			
225	101	70.70			
226	102	71.10			
227	103	71.30			
228	104	72.00			
229	105	71.50			
230	106	71.10			
231	107	71.00			
232	108	70.60			
233	109	70.50			
234	111	70.00			
235	112	67.10			
236	113	65.00			
237	114	64.50			
238	115	63.90			
239	116	63.20			
240	117	63.30			
241	118	64.10			
242	119	64.90			
243	120	66.10			
244	121	67.40			
245	122	67.50			
246	123	67.20			
247	124	66.30			
248	125	65.20			
249	126	64.40			
250	127	63.90			
251	128	64.20			
252	129	64.80			

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT****Constitution Avenue**

253	130	65.60			
254	131	67.40			
255	132	69.90			
256	133	69.80			
257	134	69.80			
258	135	69.80			
259	136	69.80			
260	137	70.10			
261	138	67.50			
262	139	66.10			
263	140	65.50			
264	141	65.10			
265	142	65.70			
266	143	68.10			
267	144	69.40			
268	145	68.30			
269	146	70.10			
270	147	70.20			
271	148	70.50			
272	149	71.00			
273	150	71.20			
274	151	71.80			
275	152	71.40			
276	153	70.90			
277	154	70.70			
278	155	70.40			
279	156	70.20			
280	157	69.80			



**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

Constitution Avenue

Kimley-Horn			27 January 2022
AH			TNM 2.5
			Calculated with TNM 2.5

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

<b>PROJECT/CONTRACT:</b>	Constitution Avenue
<b>RUN:</b>	2045 No-Build
<b>BARRIER DESIGN:</b>	INPUT HEIGHTS
<b>ATMOSPHERICS:</b>	68 deg F, 50% RH

Receivers				
Name	No.	Total	Vehicle Type	Partial
		LAeq1h	Name	
		dBA		dBA
125	1	68.8	Autos	68.2
			MTrucks	55.2
			HTrucks	58.1
			Buses	
			Motorcycles	
126	2	70.4	Autos	69.9
			MTrucks	56.7
			HTrucks	59.7
			Buses	
			Motorcycles	
127	3	70.4	Autos	69.8
			MTrucks	56.6
			HTrucks	59.7
			Buses	
			Motorcycles	
128	4	70.4	Autos	69.8
			MTrucks	56.6
			HTrucks	59.7
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

129	5	70.4	Autos	69.8
			MTrucks	56.7
			HTrucks	59.7
			Buses	
			Motorcycles	
130	6	70.4	Autos	69.8
			MTrucks	56.7
			HTrucks	59.7
			Buses	
			Motorcycles	
131	7	70.4	Autos	69.8
			MTrucks	56.7
			HTrucks	59.7
			Buses	
			Motorcycles	
132	8	70.4	Autos	69.8
			MTrucks	56.7
			HTrucks	59.8
			Buses	
			Motorcycles	
133	9	67.8	Autos	67.2
			MTrucks	54.4
			HTrucks	57.3
			Buses	
			Motorcycles	
134	10	66.1	Autos	65.5
			MTrucks	52.7
			HTrucks	55.8
			Buses	
			Motorcycles	
135	11	65.3	Autos	64.6
			MTrucks	51.9
			HTrucks	55.1
			Buses	
			Motorcycles	
136	12	64.4	Autos	63.7

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	51.1
			HTrucks	54.5
			Buses	
			Motorcycles	
137	13	64.2	Autos	63.5
			MTrucks	50.9
			HTrucks	54.2
			Buses	
			Motorcycles	
138	14	64.9	Autos	64.2
			MTrucks	51.5
			HTrucks	54.8
			Buses	
			Motorcycles	
139	15	65.8	Autos	65.1
			MTrucks	52.3
			HTrucks	55.5
			Buses	
			Motorcycles	
140	16	66.8	Autos	66.2
			MTrucks	53.4
			HTrucks	56.4
			Buses	
			Motorcycles	
141	17	67.7	Autos	67.1
			MTrucks	54.2
			HTrucks	57.1
			Buses	
			Motorcycles	
142	18	67.9	Autos	67.3
			MTrucks	54.4
			HTrucks	57.3
			Buses	
			Motorcycles	
143	19	67.9	Autos	67.3
			MTrucks	54.4

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	57.2
			Buses	
			Motorcycles	
144	20	67.9	Autos	67.3
			MTrucks	54.3
			HTrucks	57.2
			Buses	
			Motorcycles	
145	21	66.7	Autos	66.1
			MTrucks	53.2
			HTrucks	56.1
			Buses	
			Motorcycles	
146	22	65.5	Autos	64.9
			MTrucks	52.1
			HTrucks	55.1
			Buses	
			Motorcycles	
147	23	64.6	Autos	63.9
			MTrucks	51.2
			HTrucks	54.4
			Buses	
			Motorcycles	
148	24	63.6	Autos	62.9
			MTrucks	50.3
			HTrucks	53.5
			Buses	
			Motorcycles	
149	25	63.5	Autos	62.8
			MTrucks	50.1
			HTrucks	53.4
			Buses	
			Motorcycles	
150	26	64.5	Autos	63.8
			MTrucks	51.0
			HTrucks	54.2

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
151	27	65.1	Autos	64.5
			MTrucks	51.7
			HTrucks	54.7
			Buses	
			Motorcycles	
152	28	65.6	Autos	65.0
			MTrucks	52.1
			HTrucks	55.2
			Buses	
			Motorcycles	
153	29	67.6	Autos	67.0
			MTrucks	54.0
			HTrucks	56.9
			Buses	
			Motorcycles	
154	30	70.3	Autos	69.7
			MTrucks	56.7
			HTrucks	59.9
			Buses	
			Motorcycles	
155	31	70.8	Autos	70.2
			MTrucks	57.2
			HTrucks	60.4
			Buses	
			Motorcycles	
156	32	71.0	Autos	70.4
			MTrucks	57.4
			HTrucks	60.6
			Buses	
			Motorcycles	
157	33	71.4	Autos	70.7
			MTrucks	57.7
			HTrucks	61.0
			Buses	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
158	34	71.5	Autos	70.9
			MTrucks	57.9
			HTrucks	61.2
			Buses	
			Motorcycles	
159	35	72.0	Autos	71.3
			MTrucks	58.3
			HTrucks	61.8
			Buses	
			Motorcycles	
160	36	72.4	Autos	71.7
			MTrucks	58.7
			HTrucks	62.3
			Buses	
			Motorcycles	
161	37	71.8	Autos	71.1
			MTrucks	58.2
			HTrucks	61.8
			Buses	
			Motorcycles	
162	38	71.6	Autos	70.9
			MTrucks	57.9
			HTrucks	61.6
			Buses	
			Motorcycles	
163	39	71.2	Autos	70.5
			MTrucks	57.5
			HTrucks	61.2
			Buses	
			Motorcycles	
164	40	70.8	Autos	70.2
			MTrucks	57.1
			HTrucks	60.8
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

165	41	70.7	Autos	70.0
			MTrucks	56.9
			HTrucks	60.7
			Buses	
			Motorcycles	
166	42	68.8	Autos	68.2
			MTrucks	55.2
			HTrucks	58.9
			Buses	
			Motorcycles	
167	43	69.1	Autos	68.4
			MTrucks	55.5
			HTrucks	59.1
			Buses	
			Motorcycles	
168	44	69.4	Autos	68.8
			MTrucks	55.9
			HTrucks	59.4
			Buses	
			Motorcycles	
169	45	70.1	Autos	69.4
			MTrucks	56.5
			HTrucks	59.9
			Buses	
			Motorcycles	
170	46	69.4	Autos	68.8
			MTrucks	55.9
			HTrucks	59.2
			Buses	
			Motorcycles	
171	47	68.8	Autos	68.1
			MTrucks	55.3
			HTrucks	58.5
			Buses	
			Motorcycles	
172	48	68.0	Autos	67.4

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	54.5
			HTrucks	57.8
			Buses	
			Motorcycles	
173	49	67.5	Autos	66.8
			MTrucks	54.0
			HTrucks	57.3
			Buses	
			Motorcycles	
174	50	66.9	Autos	66.2
			MTrucks	53.5
			HTrucks	56.9
			Buses	
			Motorcycles	
175	51	66.1	Autos	65.4
			MTrucks	52.7
			HTrucks	56.2
			Buses	
			Motorcycles	
176	52	65.4	Autos	64.7
			MTrucks	52.0
			HTrucks	55.6
			Buses	
			Motorcycles	
177	53	65.9	Autos	65.2
			MTrucks	52.5
			HTrucks	55.9
			Buses	
			Motorcycles	
178	54	66.6	Autos	66.0
			MTrucks	53.2
			HTrucks	56.5
			Buses	
			Motorcycles	
179	55	68.1	Autos	67.4
			MTrucks	54.6



**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	57.7
			Buses	
			Motorcycles	
180	56	70.6	Autos	70.0
			MTrucks	57.0
			HTrucks	60.1
			Buses	
			Motorcycles	
181	57	67.0	Autos	66.4
			MTrucks	53.1
			HTrucks	56.5
			Buses	
			Motorcycles	
182	58	65.1	Autos	64.5
			MTrucks	51.5
			HTrucks	54.7
			Buses	
			Motorcycles	
183	59	64.7	Autos	64.0
			MTrucks	51.1
			HTrucks	54.2
			Buses	
			Motorcycles	
184	60	64.1	Autos	63.5
			MTrucks	50.6
			HTrucks	53.6
			Buses	
			Motorcycles	
185	61	63.3	Autos	62.7
			MTrucks	49.8
			HTrucks	52.9
			Buses	
			Motorcycles	
186	62	63.5	Autos	62.8
			MTrucks	50.0
			HTrucks	53.1

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
187	63	64.2	Autos	63.6
			MTrucks	50.7
			HTrucks	53.8
			Buses	
			Motorcycles	
188	64	65.1	Autos	64.5
			MTrucks	51.5
			HTrucks	54.7
			Buses	
			Motorcycles	
189	65	66.2	Autos	65.6
			MTrucks	52.4
			HTrucks	55.7
			Buses	
			Motorcycles	
190	66	67.4	Autos	66.8
			MTrucks	53.4
			HTrucks	56.9
			Buses	
			Motorcycles	
191	67	67.4	Autos	66.8
			MTrucks	53.4
			HTrucks	56.9
			Buses	
			Motorcycles	
192	68	67.4	Autos	66.8
			MTrucks	53.5
			HTrucks	56.9
			Buses	
			Motorcycles	
193	69	67.2	Autos	66.6
			MTrucks	53.3
			HTrucks	56.8
			Buses	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
194	70	66.4	Autos	65.8
			MTrucks	52.7
			HTrucks	56.0
			Buses	
			Motorcycles	
195	71	65.4	Autos	64.8
			MTrucks	51.8
			HTrucks	55.0
			Buses	
			Motorcycles	
196	72	64.6	Autos	64.0
			MTrucks	51.1
			HTrucks	54.2
			Buses	
			Motorcycles	
197	73	64.1	Autos	63.4
			MTrucks	50.6
			HTrucks	53.7
			Buses	
			Motorcycles	
198	74	64.3	Autos	63.7
			MTrucks	50.9
			HTrucks	54.0
			Buses	
			Motorcycles	
199	75	65.0	Autos	64.3
			MTrucks	51.5
			HTrucks	54.6
			Buses	
			Motorcycles	
200	76	65.7	Autos	65.1
			MTrucks	52.2
			HTrucks	55.4
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

201	77	67.4	Autos	66.8
			MTrucks	53.5
			HTrucks	57.0
			Buses	
			Motorcycles	
202	78	70.1	Autos	69.5
			MTrucks	56.2
			HTrucks	59.7
			Buses	
			Motorcycles	
203	79	70.1	Autos	69.5
			MTrucks	56.2
			HTrucks	59.7
			Buses	
			Motorcycles	
204	80	70.1	Autos	69.5
			MTrucks	56.1
			HTrucks	59.6
			Buses	
			Motorcycles	
205	81	70.1	Autos	69.5
			MTrucks	56.1
			HTrucks	59.6
			Buses	
			Motorcycles	
206	82	70.1	Autos	69.5
			MTrucks	56.1
			HTrucks	59.6
			Buses	
			Motorcycles	
207	83	70.1	Autos	69.5
			MTrucks	56.1
			HTrucks	59.6
			Buses	
			Motorcycles	
208	84	70.3	Autos	69.7

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	56.4
			HTrucks	60.0
			Buses	
			Motorcycles	
209	85	67.6	Autos	67.0
			MTrucks	53.8
			HTrucks	57.3
			Buses	
			Motorcycles	
210	86	66.3	Autos	65.6
			MTrucks	52.7
			HTrucks	56.0
			Buses	
			Motorcycles	
211	87	65.6	Autos	65.0
			MTrucks	52.1
			HTrucks	55.4
			Buses	
			Motorcycles	
212	88	65.3	Autos	64.6
			MTrucks	51.8
			HTrucks	55.1
			Buses	
			Motorcycles	
213	89	65.9	Autos	65.2
			MTrucks	52.3
			HTrucks	55.7
			Buses	
			Motorcycles	
214	90	66.5	Autos	65.8
			MTrucks	52.9
			HTrucks	56.3
			Buses	
			Motorcycles	
215	91	67.0	Autos	66.4
			MTrucks	53.4

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	56.8
			Buses	
			Motorcycles	
216	92	67.5	Autos	66.9
			MTrucks	53.8
			HTrucks	57.3
			Buses	
			Motorcycles	
217	93	68.2	Autos	67.6
			MTrucks	54.4
			HTrucks	58.0
			Buses	
			Motorcycles	
218	94	68.8	Autos	68.2
			MTrucks	55.0
			HTrucks	58.6
			Buses	
			Motorcycles	
219	95	69.4	Autos	68.7
			MTrucks	55.5
			HTrucks	59.4
			Buses	
			Motorcycles	
220	96	68.8	Autos	68.1
			MTrucks	55.0
			HTrucks	58.8
			Buses	
			Motorcycles	
221	97	68.5	Autos	67.8
			MTrucks	54.7
			HTrucks	58.5
			Buses	
			Motorcycles	
222	98	68.3	Autos	67.7
			MTrucks	54.4
			HTrucks	58.4

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
223	99	70.3	Autos	69.6
			MTrucks	56.2
			HTrucks	60.5
			Buses	
			Motorcycles	
224	100	70.4	Autos	69.7
			MTrucks	56.4
			HTrucks	60.6
			Buses	
			Motorcycles	
225	101	70.7	Autos	70.0
			MTrucks	56.7
			HTrucks	61.0
			Buses	
			Motorcycles	
226	102	71.1	Autos	70.5
			MTrucks	57.1
			HTrucks	61.5
			Buses	
			Motorcycles	
227	103	71.3	Autos	70.6
			MTrucks	57.3
			HTrucks	61.6
			Buses	
			Motorcycles	
228	104	72.0	Autos	71.3
			MTrucks	58.0
			HTrucks	62.2
			Buses	
			Motorcycles	
229	105	71.5	Autos	70.8
			MTrucks	57.5
			HTrucks	61.5
			Buses	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
230	106	71.1	Autos	70.4
			MTrucks	57.2
			HTrucks	61.0
			Buses	
			Motorcycles	
231	107	71.0	Autos	70.3
			MTrucks	57.1
			HTrucks	60.8
			Buses	
			Motorcycles	
232	108	70.6	Autos	70.0
			MTrucks	56.7
			HTrucks	60.4
			Buses	
			Motorcycles	
233	109	70.5	Autos	69.9
			MTrucks	56.6
			HTrucks	60.2
			Buses	
			Motorcycles	
234	111	70.0	Autos	69.4
			MTrucks	56.1
			HTrucks	59.7
			Buses	
			Motorcycles	
235	112	67.1	Autos	66.5
			MTrucks	53.0
			HTrucks	56.6
			Buses	
			Motorcycles	
236	113	65.0	Autos	64.4
			MTrucks	51.0
			HTrucks	54.6
			Buses	
			Motorcycles	



**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

237	114	64.5	Autos	63.9
			MTrucks	50.6
			HTrucks	54.1
			Buses	
			Motorcycles	
238	115	63.9	Autos	63.3
			MTrucks	50.1
			HTrucks	53.5
			Buses	
			Motorcycles	
239	116	63.2	Autos	62.5
			MTrucks	49.5
			HTrucks	52.8
			Buses	
			Motorcycles	
240	117	63.3	Autos	62.7
			MTrucks	49.7
			HTrucks	53.0
			Buses	
			Motorcycles	
241	118	64.1	Autos	63.4
			MTrucks	50.3
			HTrucks	53.7
			Buses	
			Motorcycles	
242	119	64.9	Autos	64.3
			MTrucks	51.0
			HTrucks	54.5
			Buses	
			Motorcycles	
243	120	66.1	Autos	65.5
			MTrucks	52.0
			HTrucks	55.6
			Buses	
			Motorcycles	
244	121	67.4	Autos	66.8

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	53.4
			HTrucks	57.0
			Buses	
			Motorcycles	
245	122	67.5	Autos	66.9
			MTrucks	53.5
			HTrucks	57.1
			Buses	
			Motorcycles	
246	123	67.2	Autos	66.6
			MTrucks	53.2
			HTrucks	56.8
			Buses	
			Motorcycles	
247	124	66.3	Autos	65.7
			MTrucks	52.3
			HTrucks	55.9
			Buses	
			Motorcycles	
248	125	65.2	Autos	64.6
			MTrucks	51.3
			HTrucks	54.9
			Buses	
			Motorcycles	
249	126	64.4	Autos	63.8
			MTrucks	50.7
			HTrucks	54.1
			Buses	
			Motorcycles	
250	127	63.9	Autos	63.3
			MTrucks	50.3
			HTrucks	53.6
			Buses	
			Motorcycles	
251	128	64.2	Autos	63.5
			MTrucks	50.5

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	53.9
			Buses	
			Motorcycles	
252	129	64.8	Autos	64.2
			MTrucks	51.0
			HTrucks	54.5
			Buses	
			Motorcycles	
253	130	65.6	Autos	65.0
			MTrucks	51.7
			HTrucks	55.3
			Buses	
			Motorcycles	
254	131	67.4	Autos	66.8
			MTrucks	53.4
			HTrucks	57.0
			Buses	
			Motorcycles	
255	132	69.9	Autos	69.2
			MTrucks	56.1
			HTrucks	59.5
			Buses	
			Motorcycles	
256	133	69.8	Autos	69.2
			MTrucks	56.1
			HTrucks	59.4
			Buses	
			Motorcycles	
257	134	69.8	Autos	69.2
			MTrucks	56.1
			HTrucks	59.4
			Buses	
			Motorcycles	
258	135	69.8	Autos	69.2
			MTrucks	56.0
			HTrucks	59.4

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
259	136	69.8	Autos	69.2
			MTrucks	56.1
			HTrucks	59.4
			Buses	
			Motorcycles	
260	137	70.1	Autos	69.4
			MTrucks	56.3
			HTrucks	59.8
			Buses	
			Motorcycles	
261	138	67.5	Autos	66.9
			MTrucks	53.6
			HTrucks	57.3
			Buses	
			Motorcycles	
262	139	66.1	Autos	65.5
			MTrucks	52.2
			HTrucks	55.9
			Buses	
			Motorcycles	
263	140	65.5	Autos	64.8
			MTrucks	51.7
			HTrucks	55.3
			Buses	
			Motorcycles	
264	141	65.1	Autos	64.5
			MTrucks	51.4
			HTrucks	55.0
			Buses	
			Motorcycles	
265	142	65.7	Autos	65.0
			MTrucks	51.8
			HTrucks	55.6
			Buses	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
266	143	68.1	Autos	67.5
			MTrucks	54.1
			HTrucks	58.0
			Buses	
			Motorcycles	
267	144	69.4	Autos	68.7
			MTrucks	55.3
			HTrucks	59.5
			Buses	
			Motorcycles	
268	145	68.3	Autos	67.6
			MTrucks	54.2
			HTrucks	58.4
			Buses	
			Motorcycles	
269	146	70.1	Autos	69.4
			MTrucks	56.1
			HTrucks	60.4
			Buses	
			Motorcycles	
270	147	70.2	Autos	69.5
			MTrucks	56.2
			HTrucks	60.5
			Buses	
			Motorcycles	
271	148	70.5	Autos	69.8
			MTrucks	56.5
			HTrucks	60.8
			Buses	
			Motorcycles	
272	149	71.0	Autos	70.3
			MTrucks	56.9
			HTrucks	61.3
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

273	150	71.2	Autos	70.5
			MTrucks	57.2
			HTrucks	61.5
			Buses	
			Motorcycles	
274	151	71.8	Autos	71.1
			MTrucks	57.9
			HTrucks	62.0
			Buses	
			Motorcycles	
275	152	71.4	Autos	70.7
			MTrucks	57.5
			HTrucks	61.6
			Buses	
			Motorcycles	
276	153	70.9	Autos	70.2
			MTrucks	57.0
			HTrucks	60.9
			Buses	
			Motorcycles	
277	154	70.7	Autos	70.1
			MTrucks	56.9
			HTrucks	60.6
			Buses	
			Motorcycles	
278	155	70.4	Autos	69.7
			MTrucks	56.5
			HTrucks	60.1
			Buses	
			Motorcycles	
279	156	70.2	Autos	69.6
			MTrucks	56.4
			HTrucks	60.0
			Buses	
			Motorcycles	
280	157	69.8	Autos	69.2

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

			MTrucks	56.0
			HTrucks	59.5
			Buses	
			Motorcycles	

**Constitution Avenue**





**RESULTS: BARRIER DESIGN**

**Constitution Avenue**

146	22	65.5	0.0	8	-8.0					
147	23	64.6	-0.0	8	-8.0					
148	24	63.6	-0.0	8	-8.0					
149	25	63.5	-0.0	8	-8.0					
150	26	64.5	-0.0	8	-8.0					
151	27	65.1	0.0	8	-8.0					
152	28	65.6	0.0	8	-8.0					
153	29	67.6	-0.0	8	-8.0					
154	30	70.3	0.0	8	-8.0					
155	31	70.8	0.0	8	-8.0					
156	32	71.0	0.0	8	-8.0					
157	33	71.4	-0.0	8	-8.0					
158	34	71.5	0.0	8	-8.0					
159	35	72.0	-0.0	8	-8.0					
160	36	72.4	0.0	8	-8.0					
161	37	71.8	-0.0	8	-8.0					
162	38	71.6	0.0	8	-8.0					
163	39	71.2	-0.0	8	-8.0					
164	40	70.8	0.0	8	-8.0					
165	41	70.7	-0.0	8	-8.0					
166	42	68.8	0.0	8	-8.0					
167	43	69.1	-0.0	8	-8.0					
168	44	69.4	0.0	8	-8.0					
169	45	70.1	-0.0	8	-8.0					
170	46	69.4	0.0	8	-8.0					
171	47	68.8	-0.0	8	-8.0					
172	48	68.0	0.0	8	-8.0					
173	49	67.5	-0.0	8	-8.0					
174	50	66.9	0.0	8	-8.0					
175	51	66.1	-0.0	8	-8.0					
176	52	65.4	0.0	8	-8.0					
177	53	65.9	0.0	8	-8.0					
178	54	66.6	0.0	8	-8.0					
179	55	68.1	-0.0	8	-8.0					
180	56	70.6	0.0	8	-8.0					
181	57	67.0	0.0	8	-8.0					

**RESULTS: BARRIER DESIGN****Constitution Avenue**

182	58	65.1	0.0	8	-8.0				
183	59	64.7	-0.0	8	-8.0				
184	60	64.1	-0.0	8	-8.0				
185	61	63.3	-0.0	8	-8.0				
186	62	63.5	-0.0	8	-8.0				
187	63	64.2	0.0	8	-8.0				
188	64	65.1	-0.0	8	-8.0				
189	65	66.2	-0.0	8	-8.0				
190	66	67.4	-0.0	8	-8.0				
191	67	67.4	-0.0	8	-8.0				
192	68	67.4	0.0	8	-8.0				
193	69	67.2	0.0	8	-8.0				
194	70	66.4	-0.0	8	-8.0				
195	71	65.4	-0.0	8	-8.0				
196	72	64.6	0.0	8	-8.0				
197	73	64.1	-0.0	8	-8.0				
198	74	64.3	0.0	8	-8.0				
199	75	65.0	-0.0	8	-8.0				
200	76	65.7	0.0	8	-8.0				
201	77	67.4	-0.0	8	-8.0				
202	78	70.1	0.0	8	-8.0				
203	79	70.1	0.0	8	-8.0				
204	80	70.1	0.0	8	-8.0				
205	81	70.1	0.0	8	-8.0				
206	82	70.1	0.0	8	-8.0				
207	83	70.1	0.0	8	-8.0				
208	84	70.3	0.0	8	-8.0				
209	85	67.6	-0.0	8	-8.0				
210	86	66.3	-0.0	8	-8.0				
211	87	65.6	0.0	8	-8.0				
212	88	65.3	-0.0	8	-8.0				
213	89	65.9	-0.0	8	-8.0				
214	90	66.5	-0.0	8	-8.0				
215	91	67.0	0.0	8	-8.0				
216	92	67.5	0.0	8	-8.0				
217	93	68.2	0.0	8	-8.0				

**RESULTS: BARRIER DESIGN**

**Constitution Avenue**

218	94	68.8	0.0	8	-8.0				
219	95	69.4	0.0	8	-8.0				
220	96	68.8	-0.0	8	-8.0				
221	97	68.5	-0.0	8	-8.0				
222	98	68.3	0.0	8	-8.0				
223	99	70.3	-0.0	8	-8.0				
224	100	70.4	0.0	8	-8.0				
225	101	70.7	0.0	8	-8.0				
226	102	71.1	0.0	8	-8.0				
227	103	71.3	0.0	8	-8.0				
228	104	72.0	-0.0	8	-8.0				
229	105	71.5	-0.0	8	-8.0				
230	106	71.1	-0.0	8	-8.0				
231	107	71.0	-0.0	8	-8.0				
232	108	70.6	0.0	8	-8.0				
233	109	70.5	-0.0	8	-8.0				
234	111	70.0	-0.0	8	-8.0				
235	112	67.1	0.0	8	-8.0				
236	113	65.0	-0.0	8	-8.0				
237	114	64.5	-0.0	8	-8.0				
238	115	63.9	0.0	8	-8.0				
239	116	63.2	-0.0	8	-8.0				
240	117	63.3	0.0	8	-8.0				
241	118	64.1	-0.0	8	-8.0				
242	119	64.9	0.0	8	-8.0				
243	120	66.1	-0.0	8	-8.0				
244	121	67.4	0.0	8	-8.0				
245	122	67.5	-0.0	8	-8.0				
246	123	67.2	0.0	8	-8.0				
247	124	66.3	-0.0	8	-8.0				
248	125	65.2	0.0	8	-8.0				
249	126	64.4	0.0	8	-8.0				
250	127	63.9	0.0	8	-8.0				
251	128	64.2	-0.0	8	-8.0				
252	129	64.8	-0.0	8	-8.0				
253	130	65.6	-0.0	8	-8.0				

**RESULTS: BARRIER DESIGN**

**Constitution Avenue**

254	131	67.4	-0.0	8	-8.0				
255	132	69.9	-0.0	8	-8.0				
256	133	69.8	0.0	8	-8.0				
257	134	69.8	0.0	8	-8.0				
258	135	69.8	0.0	8	-8.0				
259	136	69.8	0.0	8	-8.0				
260	137	70.1	-0.0	8	-8.0				
261	138	67.5	0.0	8	-8.0				
262	139	66.1	-0.0	8	-8.0				
263	140	65.5	-0.0	8	-8.0				
264	141	65.1	0.0	8	-8.0				
265	142	65.7	-0.0	8	-8.0				
266	143	68.1	0.0	8	-8.0				
267	144	69.4	0.0	8	-8.0				
268	145	68.3	-0.0	8	-8.0				
269	146	70.1	-0.0	8	-8.0				
270	147	70.2	0.0	8	-8.0				
271	148	70.5	0.0	8	-8.0				
272	149	71.0	-0.0	8	-8.0				
273	150	71.2	0.0	8	-8.0				
274	151	71.8	-0.0	8	-8.0				
275	152	71.4	-0.0	8	-8.0				
276	153	70.9	-0.0	8	-8.0				
277	154	70.7	0.0	8	-8.0				
278	155	70.4	-0.0	8	-8.0				
279	156	70.2	0.0	8	-8.0				
280	157	69.8	0.0	8	-8.0				
Total Cost, All Barriers (including additional cost(s))					\$0				



**INPUT: ROADWAYS**

**Constitution Avenue**

		point26	26	3,230,736.5	1,377,878.2	0.00					
EB Constitution Turn Lane	14.0	point36	36	3,230,975.2	1,377,811.1	0.00					Average
		point35	35	3,231,231.0	1,377,814.2	0.00					Average
		point34	34	3,231,486.8	1,377,818.2	0.00					Average
		point33	33	3,231,742.5	1,377,823.8	0.00					Average
		point32	32	3,231,998.2	1,377,828.5	0.00					Average
		point31	31	3,232,254.0	1,377,831.0	0.00					Average
		point30	30	3,232,509.5	1,377,837.4	0.00					Average
		point29	29	3,232,553.5	1,377,833.0	0.00					Average
		point28	28	3,232,586.2	1,377,815.1	0.00					Average
		point27	27	3,232,608.8	1,377,786.4	0.00					
WB Constitution Turn Lane	14.0	point37	37	3,232,597.8	1,377,990.1	0.00					Average
		point38	38	3,232,575.2	1,377,955.4	0.00					Average
		point39	39	3,232,541.5	1,377,934.9	0.00					Average
		point40	40	3,232,505.2	1,377,922.8	0.00					Average
		point41	41	3,232,444.2	1,377,918.9	0.00					Average
		point42	42	3,232,325.0	1,377,916.9	0.00					Average
		point43	43	3,232,148.2	1,377,916.1	0.00					Average
		point44	44	3,231,946.2	1,377,912.6	0.00					Average
		point45	45	3,231,636.5	1,377,908.2	0.00					Average
		point46	46	3,231,580.2	1,377,920.4	0.00					
Akers SB to Const WB	14.0	point58	58	3,231,392.2	1,378,298.8	0.00					Average
		point57	57	3,231,442.2	1,378,188.0	0.00					Average
		point56	56	3,231,482.0	1,378,090.6	0.00					Average
		point55	55	3,231,500.5	1,378,021.6	0.00					Average
		point54	54	3,231,501.0	1,377,963.5	0.00					Average
		point53	53	3,231,488.5	1,377,935.6	0.00					Average
		point52	52	3,231,459.2	1,377,913.5	0.00					Average
		point51	51	3,231,422.0	1,377,903.9	0.00					Average
		point50	50	3,231,345.0	1,377,901.5	0.00					Average
		point49	49	3,231,047.2	1,377,896.2	0.00					Average
		point48	48	3,230,916.2	1,377,893.4	0.00					Average
		point47	47	3,230,737.0	1,377,895.2	0.00					
Akers Dr NB	14.0	point70	70	3,231,580.2	1,377,920.4	0.00					Average
		point69	69	3,231,562.0	1,378,001.0	0.00					Average
		point68	68	3,231,542.2	1,378,081.8	0.00					Average
		point67	67	3,231,509.0	1,378,171.8	0.00					Average
		point66	66	3,231,478.8	1,378,241.6	0.00					Average
		point65	65	3,231,447.0	1,378,299.2	0.00					Average

**INPUT: ROADWAYS**

**Constitution Avenue**

		point64	64	3,231,419.5	1,378,347.5	0.00				Average
		point63	63	3,231,401.5	1,378,393.2	0.00				Average
		point62	62	3,231,380.5	1,378,460.4	0.00				Average
		point61	61	3,231,370.2	1,378,546.6	0.00				Average
		point60	60	3,231,368.2	1,378,774.4	0.00				Average
		point59	59	3,231,364.5	1,379,208.4	0.00				
Akers Dr SB	14.0	point83	83	3,231,333.2	1,379,210.8	0.00				Average
		point82	82	3,231,336.8	1,378,825.4	0.00				Average
		point81	81	3,231,340.0	1,378,607.0	0.00				Average
		point80	80	3,231,340.8	1,378,523.4	0.00				Average
		point79	79	3,231,349.8	1,378,429.1	0.00				Average
		point78	78	3,231,369.5	1,378,349.8	0.00				Average
		point77	77	3,231,406.5	1,378,296.2	0.00				Average
		point76	76	3,231,451.5	1,378,238.6	0.00				Average
		point75	75	3,231,488.8	1,378,178.4	0.00				Average
		point74	74	3,231,515.0	1,378,111.1	0.00				Average
		point73	73	3,231,536.0	1,378,038.6	0.00				Average
		point72	72	3,231,544.8	1,377,957.8	0.00				Average
		point71	71	3,231,549.2	1,377,898.5	0.00				
SB Marksheffel RT Lane	14.0	point92	92	3,232,608.2	1,379,339.9	0.00				Average
		point91	91	3,232,611.0	1,379,151.1	0.00				Average
		point90	90	3,232,610.5	1,378,915.2	0.00				Average
		point89	89	3,232,608.5	1,378,680.2	0.00				Average
		point88	88	3,232,600.8	1,378,494.8	0.00				Average
		point87	87	3,232,600.2	1,378,371.0	0.00				Average
		point86	86	3,232,601.0	1,378,174.6	0.00				Average
		point85	85	3,232,603.8	1,378,054.2	0.00				Average
		point84	84	3,232,597.8	1,377,990.1	0.00				
SB Marksheffel Lanes	24.0	point93	93	3,232,628.0	1,379,226.4	0.00	Signal	0.00	50	Average
		point94	94	3,232,628.0	1,378,971.6	0.00				Average
		point95	95	3,232,625.8	1,378,717.0	0.00				Average
		point96	96	3,232,624.2	1,378,462.2	0.00				Average
		point97	97	3,232,624.0	1,378,207.5	0.00				Average
		point98	98	3,232,627.0	1,377,952.9	0.00				
SB Marksheffel Lanes south of const	24.0	point102	102	3,232,627.0	1,377,827.2	0.00	Signal	0.00	50	Average
		point101	101	3,232,627.5	1,377,572.5	0.00				Average
		point100	100	3,232,628.8	1,377,317.8	0.00				Average
		point99	99	3,232,638.0	1,377,063.2	0.00				
NB Marksheffel Lanes	24.0	point103	103	3,232,715.8	1,377,061.2	0.00	Signal	0.00	50	Average

**INPUT: ROADWAYS**

**Constitution Avenue**

		point104	104	3,232,710.5	1,377,316.0	0.00				Average
		point105	105	3,232,706.5	1,377,570.6	0.00				Average
		point106	106	3,232,705.0	1,377,825.4	0.00				
NB Marksheffel Lanes north of Const	24.0	point112	112	3,232,704.0	1,377,940.9	0.00	Signal	0.00	50	Average
		point111	111	3,232,702.2	1,378,195.6	0.00				Average
		point110	110	3,232,701.2	1,378,450.2	0.00				Average
		point109	109	3,232,708.2	1,378,705.0	0.00				Average
		point108	108	3,232,712.0	1,378,959.6	0.00				Average
		point107	107	3,232,711.5	1,379,214.4	0.00				
EB Constitution LT Lane	14.0	point116	116	3,232,040.2	1,377,863.6	0.00				Average
		point115	115	3,232,151.8	1,377,869.8	0.00				Average
		point114	114	3,232,381.8	1,377,872.6	0.00				Average
		point113	113	3,232,584.8	1,377,877.0	0.00				
WB Constitution LT Lane	14.0	point120	120	3,233,250.2	1,377,903.1	0.00				Average
		point119	119	3,233,119.2	1,377,895.2	0.00				Average
		point118	118	3,232,963.8	1,377,892.1	0.00				Average
		point117	117	3,232,746.2	1,377,891.9	0.00				
NB Marksheffel LT Lane	14.0	point121	121	3,232,698.2	1,377,065.4	0.00				Average
		point122	122	3,232,674.0	1,377,315.6	0.00				Average
		point123	123	3,232,671.5	1,377,570.4	0.00				Average
		point124	124	3,232,668.5	1,377,825.1	0.00				
SB Marksheffel LT Lane	14.0	point125	125	3,232,643.2	1,378,959.8	0.00				Average
		point126	126	3,232,662.0	1,378,719.0	0.00				Average
		point127	127	3,232,658.2	1,378,464.2	0.00				Average
		point128	128	3,232,659.0	1,378,209.5	0.00				Average
		point129	129	3,232,660.8	1,377,954.8	0.00				
NB Marksheffel to EB Constitution	14.0	point144	144	3,232,722.2	1,377,442.4	0.00				Average
		point143	143	3,232,726.8	1,377,504.8	0.00				Average
		point142	142	3,232,723.2	1,377,699.2	0.00				Average
		point141	141	3,232,723.8	1,377,750.8	0.00				Average
		point140	140	3,232,733.5	1,377,785.4	0.00				Average
		point139	139	3,232,752.0	1,377,815.0	0.00				Average
		point138	138	3,232,783.8	1,377,836.4	0.00				Average
		point137	137	3,232,822.8	1,377,842.6	0.00				Average
		point136	136	3,233,027.5	1,377,844.4	0.00				Average
		point135	135	3,233,301.5	1,377,847.8	0.00				Average
		point134	134	3,233,537.5	1,377,850.8	0.00				Average
		point133	133	3,233,634.8	1,377,850.8	0.00				Average
		point132	132	3,233,671.2	1,377,841.0	0.00				Average



**INPUT: ROADWAYS**

**Constitution Avenue**

		point131	131	3,233,702.8	1,377,820.2	0.00				Average
		point130	130	3,233,722.5	1,377,793.4	0.00				
WB Constitution to NB Marksheffel	14.0	point157	157	3,233,676.5	1,377,933.1	0.00				Average
		point156	156	3,233,371.0	1,377,929.5	0.00				Average
		point155	155	3,233,240.8	1,377,927.5	0.00				Average
		point154	154	3,233,021.8	1,377,925.5	0.00				Average
		point153	153	3,232,873.8	1,377,924.2	0.00				Average
		point152	152	3,232,808.5	1,377,928.6	0.00				Average
		point151	151	3,232,775.5	1,377,940.1	0.00				Average
		point150	150	3,232,744.8	1,377,968.5	0.00				Average
		point149	149	3,232,725.8	1,378,006.2	0.00				Average
		point148	148	3,232,722.8	1,378,066.1	0.00				Average
		point147	147	3,232,724.5	1,378,238.0	0.00				Average
		point146	146	3,232,723.5	1,378,409.6	0.00				Average
		point145	145	3,232,721.5	1,378,543.1	0.00				
SB Marksheffel Turn Lane	14.0	point158	158	3,232,617.2	1,377,502.0	0.00				Average
		point159	159	3,232,609.8	1,377,405.0	0.00				Average
		point160	160	3,232,618.2	1,377,111.0	0.00				
Akers Drive Extension	24.0	point161	161	3,231,488.2	1,377,391.5	0.00				Average
		point162	162	3,231,488.2	1,377,451.5	0.00				Average
		point163	163	3,231,500.8	1,377,503.4	0.00				Average
		point164	164	3,231,514.2	1,377,545.1	0.00				Average
		point165	165	3,231,546.5	1,377,582.5	0.00				Average
		point166	166	3,231,558.8	1,377,620.8	0.00				Average
		point167	167	3,231,558.0	1,377,737.4	0.00				Average
		point168	168	3,231,557.5	1,377,794.9	0.00				
Internal Site Road	24.0	point169	169	3,232,574.2	1,377,449.5	0.00				Average
		point170	170	3,232,458.2	1,377,452.1	0.00				Average
		point171	171	3,232,454.5	1,377,686.5	0.00				Average
		point172	172	3,232,355.5	1,377,683.9	0.00				Average
		point173	173	3,232,352.8	1,377,449.5	0.00				Average
		point174	174	3,232,224.0	1,377,445.6	0.00				Average
		point175	175	3,232,227.8	1,377,746.4	0.00				Average
		point176	176	3,232,156.2	1,377,743.8	0.00				Average
		point177	177	3,232,160.0	1,377,448.2	0.00				Average
		point178	178	3,232,013.0	1,377,445.6	0.00				Average
		point179	179	3,232,015.5	1,377,591.5	0.00				Average
		point180	180	3,231,951.8	1,377,591.5	0.00				Average
		point181	181	3,231,951.8	1,377,444.2	0.00				Average

**INPUT: ROADWAYS****Constitution Avenue**

		point182	182	3,231,798.5	1,377,444.8	0.00				Average	
		point183	183	3,231,793.2	1,377,750.4	0.00				Average	
		point184	184	3,231,751.0	1,377,749.2	0.00				Average	
		point185	185	3,231,750.2	1,377,449.0	0.00				Average	
		point186	186	3,231,699.0	1,377,443.9	0.00				Average	
		point187	187	3,231,668.5	1,377,456.1	0.00				Average	
		point188	188	3,231,646.0	1,377,475.1	0.00				Average	
		point189	189	3,231,563.0	1,377,521.2	0.00				Average	
		point190	190	3,231,517.2	1,377,541.9	0.00					

INPUT: TRAFFIC FOR LAeq1h Volumes

Constitution Avenue

Kimley-Horn		27 January 2022										
AH		TNM 2.5										
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:		Constitution Avenue										
RUN:		Build										
Roadway	Points											
Name	Name	No.	Segment		MTrucks		HTrucks		Buses		Motorcycles	
			Autos		V	S	V	S	V	S	V	S
			V	S	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
EB Constitution Lanes	point13	13	1146	50	10	50	10	50	0	0	0	0
	point12	12	1146	50	10	50	10	50	0	0	0	0
	point11	11	1146	50	10	50	10	50	0	0	0	0
	point10	10	1146	50	10	50	10	50	0	0	0	0
	point9	9	1146	50	10	50	10	50	0	0	0	0
	point8	8	1146	50	10	50	10	50	0	0	0	0
	point7	7	1146	50	10	50	10	50	0	0	0	0
	point6	6	1146	50	10	50	10	50	0	0	0	0
	point5	5	1146	50	10	50	10	50	0	0	0	0
	point4	4	1146	50	10	50	10	50	0	0	0	0
WB Constitution Lanes	point3	3	1146	50	10	50	10	50	0	0	0	0
	point2	2	1146	50	10	50	10	50	0	0	0	0
	point1	1										
	point14	14	1152	50	10	50	10	50	0	0	0	0
	point15	15	1152	50	10	50	10	50	0	0	0	0
	point16	16	1152	50	10	50	10	50	0	0	0	0
	point17	17	1152	50	10	50	10	50	0	0	0	0
	point18	18	1152	50	10	50	10	50	0	0	0	0
	point19	19	1152	50	10	50	10	50	0	0	0	0
point20	20	1152	50	10	50	10	50	0	0	0	0	
point21	21	1152	50	10	50	10	50	0	0	0	0	
point22	22	1152	50	10	50	10	50	0	0	0	0	
point23	23	1152	50	10	50	10	50	0	0	0	0	

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point24	24	1152	50	10	50	10	50	0	0	0	0
	point25	25	1152	50	10	50	10	50	0	0	0	0
	point26	26										
EB Constitution Turn Lane	point36	36	0	0	0	0	0	0	0	0	0	0
	point35	35	0	0	0	0	0	0	0	0	0	0
	point34	34	0	0	0	0	0	0	0	0	0	0
	point33	33	0	0	0	0	0	0	0	0	0	0
	point32	32	0	0	0	0	0	0	0	0	0	0
	point31	31	0	0	0	0	0	0	0	0	0	0
	point30	30	0	0	0	0	0	0	0	0	0	0
	point29	29	0	0	0	0	0	0	0	0	0	0
	point28	28	0	0	0	0	0	0	0	0	0	0
	point27	27										
WB Constitution Turn Lane	point37	37	0	0	0	0	0	0	0	0	0	0
	point38	38	0	0	0	0	0	0	0	0	0	0
	point39	39	0	0	0	0	0	0	0	0	0	0
	point40	40	0	0	0	0	0	0	0	0	0	0
	point41	41	0	0	0	0	0	0	0	0	0	0
	point42	42	0	0	0	0	0	0	0	0	0	0
	point43	43	0	0	0	0	0	0	0	0	0	0
	point44	44	0	0	0	0	0	0	0	0	0	0
	point45	45	0	0	0	0	0	0	0	0	0	0
	point46	46										
Akers SB to Const WB	point58	58	0	0	0	0	0	0	0	0	0	0
	point57	57	0	0	0	0	0	0	0	0	0	0
	point56	56	0	0	0	0	0	0	0	0	0	0
	point55	55	0	0	0	0	0	0	0	0	0	0
	point54	54	0	0	0	0	0	0	0	0	0	0
	point53	53	0	0	0	0	0	0	0	0	0	0
	point52	52	0	0	0	0	0	0	0	0	0	0
	point51	51	0	0	0	0	0	0	0	0	0	0
	point50	50	0	0	0	0	0	0	0	0	0	0
	point49	49	0	0	0	0	0	0	0	0	0	0
	point48	48	0	0	0	0	0	0	0	0	0	0
	point47	47										
Akers Dr NB	point70	70	79	35	0	0	0	0	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point69	69	79	35	0	0	0	0	0	0	0	0
	point68	68	79	35	0	0	0	0	0	0	0	0
	point67	67	79	35	0	0	0	0	0	0	0	0
	point66	66	79	35	0	0	0	0	0	0	0	0
	point65	65	79	35	0	0	0	0	0	0	0	0
	point64	64	79	35	0	0	0	0	0	0	0	0
	point63	63	79	35	0	0	0	0	0	0	0	0
	point62	62	79	35	0	0	0	0	0	0	0	0
	point61	61	79	35	0	0	0	0	0	0	0	0
	point60	60	79	35	0	0	0	0	0	0	0	0
	point59	59										
Akers Dr SB	point83	83	102	35	0	0	0	0	0	0	0	0
	point82	82	102	35	0	0	0	0	0	0	0	0
	point81	81	102	35	0	0	0	0	0	0	0	0
	point80	80	102	35	0	0	0	0	0	0	0	0
	point79	79	102	35	0	0	0	0	0	0	0	0
	point78	78	102	35	0	0	0	0	0	0	0	0
	point77	77	102	35	0	0	0	0	0	0	0	0
	point76	76	102	35	0	0	0	0	0	0	0	0
	point75	75	102	35	0	0	0	0	0	0	0	0
	point74	74	102	35	0	0	0	0	0	0	0	0
	point73	73	102	35	0	0	0	0	0	0	0	0
	point72	72	102	35	0	0	0	0	0	0	0	0
	point71	71										
SB Marksheffel RT Lane	point92	92	0	0	0	0	0	0	0	0	0	0
	point91	91	0	0	0	0	0	0	0	0	0	0
	point90	90	0	0	0	0	0	0	0	0	0	0
	point89	89	0	0	0	0	0	0	0	0	0	0
	point88	88	0	0	0	0	0	0	0	0	0	0
	point87	87	0	0	0	0	0	0	0	0	0	0
	point86	86	0	0	0	0	0	0	0	0	0	0
	point85	85	0	0	0	0	0	0	0	0	0	0
	point84	84										
SB Marksheffel Lanes	point93	93	1243	50	10	50	10	50	0	0	0	0
	point94	94	1243	50	10	50	10	50	0	0	0	0
	point95	95	1243	50	10	50	10	50	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point96	96	1243	50	10	50	10	50	0	0	0	0
	point97	97	1243	50	10	50	10	50	0	0	0	0
	point98	98										
SB Marksheffel Lanes south of const	point102	102	1299	50	10	50	10	50	0	0	0	0
	point101	101	1299	50	10	50	10	50	0	0	0	0
	point100	100	1299	50	10	50	10	50	0	0	0	0
	point99	99										
NB Marksheffel Lanes	point103	103	1960	50	20	50	20	50	0	0	0	0
	point104	104	1960	50	20	50	20	50	0	0	0	0
	point105	105	1960	50	20	50	20	50	0	0	0	0
	point106	106										
NB Marksheffel Lanes north of Const	point112	112	1922	50	20	50	20	50	0	0	0	0
	point111	111	1922	50	20	50	20	50	0	0	0	0
	point110	110	1922	50	20	50	20	50	0	0	0	0
	point109	109	1922	50	20	50	20	50	0	0	0	0
	point108	108	1922	50	20	50	20	50	0	0	0	0
	point107	107										
EB Constitution LT Lane	point116	116	0	0	0	0	0	0	0	0	0	0
	point115	115	0	0	0	0	0	0	0	0	0	0
	point114	114	0	0	0	0	0	0	0	0	0	0
	point113	113										
WB Constitution LT Lane	point120	120	0	0	0	0	0	0	0	0	0	0
	point119	119	0	0	0	0	0	0	0	0	0	0
	point118	118	0	0	0	0	0	0	0	0	0	0
	point117	117										
NB Marksheffel LT Lane	point121	121	0	0	0	0	0	0	0	0	0	0
	point122	122	0	0	0	0	0	0	0	0	0	0
	point123	123	0	0	0	0	0	0	0	0	0	0
	point124	124										
SB Marksheffel LT Lane	point125	125	0	0	0	0	0	0	0	0	0	0
	point126	126	0	0	0	0	0	0	0	0	0	0
	point127	127	0	0	0	0	0	0	0	0	0	0
	point128	128	0	0	0	0	0	0	0	0	0	0
	point129	129										
NB Marksheffel to EB Constitution	point144	144	0	0	0	0	0	0	0	0	0	0
	point143	143	0	0	0	0	0	0	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point142	142	0	0	0	0	0	0	0	0	0	0
	point141	141	0	0	0	0	0	0	0	0	0	0
	point140	140	0	0	0	0	0	0	0	0	0	0
	point139	139	0	0	0	0	0	0	0	0	0	0
	point138	138	0	0	0	0	0	0	0	0	0	0
	point137	137	0	0	0	0	0	0	0	0	0	0
	point136	136	0	0	0	0	0	0	0	0	0	0
	point135	135	0	0	0	0	0	0	0	0	0	0
	point134	134	0	0	0	0	0	0	0	0	0	0
	point133	133	0	0	0	0	0	0	0	0	0	0
	point132	132	0	0	0	0	0	0	0	0	0	0
	point131	131	0	0	0	0	0	0	0	0	0	0
	point130	130										
WB Constitution to NB Marksheffel	point157	157	0	0	0	0	0	0	0	0	0	0
	point156	156	0	0	0	0	0	0	0	0	0	0
	point155	155	0	0	0	0	0	0	0	0	0	0
	point154	154	0	0	0	0	0	0	0	0	0	0
	point153	153	0	0	0	0	0	0	0	0	0	0
	point152	152	0	0	0	0	0	0	0	0	0	0
	point151	151	0	0	0	0	0	0	0	0	0	0
	point150	150	0	0	0	0	0	0	0	0	0	0
	point149	149	0	0	0	0	0	0	0	0	0	0
	point148	148	0	0	0	0	0	0	0	0	0	0
	point147	147	0	0	0	0	0	0	0	0	0	0
	point146	146	0	0	0	0	0	0	0	0	0	0
	point145	145										
SB Marksheffel Turn Lane	point158	158	0	0	0	0	0	0	0	0	0	0
	point159	159	0	0	0	0	0	0	0	0	0	0
	point160	160										
Akers Drive Extension	point161	161	170	35	0	0	0	0	0	0	0	0
	point162	162	170	35	0	0	0	0	0	0	0	0
	point163	163	170	35	0	0	0	0	0	0	0	0
	point164	164	170	35	0	0	0	0	0	0	0	0
	point165	165	170	35	0	0	0	0	0	0	0	0
	point166	166	170	35	0	0	0	0	0	0	0	0
	point167	167	170	35	0	0	0	0	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point168	168										
Internal Site Road	point169	169	30	15	0	0	0	0	0	0	0	0
	point170	170	30	15	0	0	0	0	0	0	0	0
	point171	171	30	15	0	0	0	0	0	0	0	0
	point172	172	30	15	0	0	0	0	0	0	0	0
	point173	173	30	15	0	0	0	0	0	0	0	0
	point174	174	30	15	0	0	0	0	0	0	0	0
	point175	175	30	15	0	0	0	0	0	0	0	0
	point176	176	30	15	0	0	0	0	0	0	0	0
	point177	177	30	15	0	0	0	0	0	0	0	0
	point178	178	30	15	0	0	0	0	0	0	0	0
	point179	179	30	15	0	0	0	0	0	0	0	0
	point180	180	30	15	0	0	0	0	0	0	0	0
	point181	181	30	15	0	0	0	0	0	0	0	0
	point182	182	30	15	0	0	0	0	0	0	0	0
	point183	183	30	15	0	0	0	0	0	0	0	0
	point184	184	30	15	0	0	0	0	0	0	0	0
	point185	185	30	15	0	0	0	0	0	0	0	0
	point186	186	30	15	0	0	0	0	0	0	0	0
	point187	187	30	15	0	0	0	0	0	0	0	0
	point188	188	30	15	0	0	0	0	0	0	0	0
	point189	189	30	15	0	0	0	0	0	0	0	0
	point190	190										



**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

Kimley-Horn		27 January 2022													
AH		TNM 2.5													
INPUT: TRAFFIC FOR LAeq1h Volumes															
PROJECT/CONTRACT:		Constitution Avenue													
RUN:		Build													
<b>Roadway</b>		<b>Points</b>													
<b>Name</b>		<b>Name</b>	<b>No.</b>	<b>Segment</b>		<b>User 1</b>		<b>User 2</b>		<b>User 3</b>		<b>User 4</b>		<b>&lt;unknown&gt;</b>	
				<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>	<b>V</b>	<b>S</b>
				veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
EB Constitution Lanes		point13	13												
		point12	12												
		point11	11												
		point10	10												
		point9	9												
		point8	8												
		point7	7												
		point6	6												
		point5	5												
		point4	4												
		point3	3												
		point2	2												
		point1	1												
WB Constitution Lanes		point14	14												
		point15	15												
		point16	16												
		point17	17												
		point18	18												
		point19	19												
		point20	20												
		point21	21												
		point22	22												
		point23	23												

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point24	24											
	point25	25											
	point26	26											
EB Constitution Turn Lane	point36	36											
	point35	35											
	point34	34											
	point33	33											
	point32	32											
	point31	31											
	point30	30											
	point29	29											
	point28	28											
	point27	27											
WB Constitution Turn Lane	point37	37											
	point38	38											
	point39	39											
	point40	40											
	point41	41											
	point42	42											
	point43	43											
	point44	44											
	point45	45											
	point46	46											
Akers SB to Const WB	point58	58											
	point57	57											
	point56	56											
	point55	55											
	point54	54											
	point53	53											
	point52	52											
	point51	51											
	point50	50											
	point49	49											
	point48	48											
	point47	47											
Akers Dr NB	point70	70											

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point69	69											
	point68	68											
	point67	67											
	point66	66											
	point65	65											
	point64	64											
	point63	63											
	point62	62											
	point61	61											
	point60	60											
	point59	59											
Akers Dr SB	point83	83											
	point82	82											
	point81	81											
	point80	80											
	point79	79											
	point78	78											
	point77	77											
	point76	76											
	point75	75											
	point74	74											
	point73	73											
	point72	72											
	point71	71											
SB Marksheffel RT Lane	point92	92											
	point91	91											
	point90	90											
	point89	89											
	point88	88											
	point87	87											
	point86	86											
	point85	85											
	point84	84											
SB Marksheffel Lanes	point93	93											
	point94	94											
	point95	95											

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point96	96											
	point97	97											
	point98	98											
SB Marksheffel Lanes south of const	point102	102											
	point101	101											
	point100	100											
	point99	99											
NB Marksheffel Lanes	point103	103											
	point104	104											
	point105	105											
	point106	106											
NB Marksheffel Lanes north of Const	point112	112											
	point111	111											
	point110	110											
	point109	109											
	point108	108											
	point107	107											
EB Constitution LT Lane	point116	116											
	point115	115											
	point114	114											
	point113	113											
WB Constitution LT Lane	point120	120											
	point119	119											
	point118	118											
	point117	117											
NB Marksheffel LT Lane	point121	121											
	point122	122											
	point123	123											
	point124	124											
SB Marksheffel LT Lane	point125	125											
	point126	126											
	point127	127											
	point128	128											
	point129	129											
NB Marksheffel to EB Constitution	point144	144											
	point143	143											

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Constitution Avenue**

	point142	142											
	point141	141											
	point140	140											
	point139	139											
	point138	138											
	point137	137											
	point136	136											
	point135	135											
	point134	134											
	point133	133											
	point132	132											
	point131	131											
	point130	132											
WB Constitution to NB Marksheffel	point157	157											
	point156	156											
	point155	155											
	point154	154											
	point153	153											
	point152	152											
	point151	151											
	point150	150											
	point149	149											
	point148	148											
	point147	147											
	point146	146											
	point145	145											
SB Marksheffel Turn Lane	point158	158											
	point159	159											
	point160	160											
Akers Drive Extension	point161	161											
	point162	162											
	point163	163											
	point164	164											
	point165	165											
	point166	166											
	point167	167											

**INPUT: TRAFFIC FOR LAeq1h Volumes****Constitution Avenue**

	point168	168											
Internal Site Road	point169	169											
	point170	170											
	point171	171											
	point172	172											
	point173	173											
	point174	174											
	point175	175											
	point176	176											
	point177	177											
	point178	178											
	point179	179											
	point180	180											
	point181	181											
	point182	182											
	point183	183											
	point184	184											
	point185	185											
	point186	186											
	point187	187											
	point188	188											
	point189	189											
	point190	190											

INPUT: RECEIVERS

Constitution Avenue

Kimley-Horn							27 January 2022				
AH							TNM 2.5				
INPUT: RECEIVERS											
PROJECT/CONTRACT:			Constitution Avenue								
RUN:			Build								
Receiver											
Name	No.	#DUs	Coordinates (ground)			Height above Ground	Input Sound Levels and Criteria				Active in Calc.
			X	Y	Z		Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	
			ft	ft	ft	ft	dBA	dBA	dB	dB	
125	1	1	3,231,840.0	1,377,740.0	0.00	4.92	0.00	66	10.0	8.0	Y
126	2	1	3,231,880.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
127	3	1	3,231,920.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
128	4	1	3,231,950.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
129	5	1	3,232,010.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
130	6	1	3,232,040.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
131	7	1	3,232,080.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
132	8	1	3,232,110.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
133	9	1	3,232,120.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
134	10	1	3,232,120.0	1,377,610.0	0.00	4.92	0.00	66	10.0	8.0	Y
135	11	1	3,232,120.0	1,377,550.0	0.00	4.92	0.00	66	10.0	8.0	Y
136	12	1	3,232,120.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
137	13	1	3,232,060.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
138	14	1	3,232,050.0	1,377,540.0	0.00	4.92	0.00	66	10.0	8.0	Y
139	15	1	3,232,050.0	1,377,600.0	0.00	4.92	0.00	66	10.0	8.0	Y
140	16	1	3,232,050.0	1,377,660.0	0.00	4.92	0.00	66	10.0	8.0	Y
141	17	1	3,232,040.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
142	18	1	3,232,000.0	1,377,710.0	0.00	4.92	0.00	66	10.0	8.0	Y
143	19	1	3,231,960.0	1,377,710.0	0.00	4.92	0.00	66	10.0	8.0	Y
144	20	1	3,231,920.0	1,377,710.0	0.00	4.92	0.00	66	10.0	8.0	Y
145	21	1	3,231,910.0	1,377,660.0	0.00	4.92	0.00	66	10.0	8.0	Y
146	22	1	3,231,910.0	1,377,600.0	0.00	4.92	0.00	66	10.0	8.0	Y

**INPUT: RECEIVERS**

**Constitution Avenue**

147	23	1	3,231,910.0	1,377,540.0	0.00	4.92	0.00	66	10.0	8.0	Y
148	24	1	3,231,900.0	1,377,480.0	0.00	4.92	0.00	66	10.0	8.0	Y
149	25	1	3,231,840.0	1,377,480.0	0.00	4.92	0.00	66	10.0	8.0	Y
150	26	1	3,231,840.0	1,377,540.0	0.00	4.92	0.00	66	10.0	8.0	Y
151	27	1	3,231,840.0	1,377,580.0	0.00	4.92	0.00	66	10.0	8.0	Y
152	28	1	3,231,840.0	1,377,610.0	0.00	4.92	0.00	66	10.0	8.0	Y
153	29	1	3,231,840.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
154	30	1	3,232,310.0	1,377,770.0	0.00	4.92	0.00	66	10.0	8.0	Y
155	31	1	3,232,340.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
156	32	1	3,232,380.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
157	33	1	3,232,440.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
158	34	1	3,232,460.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
159	35	1	3,232,500.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
160	36	1	3,232,530.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
161	37	1	3,232,540.0	1,377,730.0	0.00	4.92	0.00	66	10.0	8.0	Y
162	38	1	3,232,550.0	1,377,680.0	0.00	4.92	0.00	66	10.0	8.0	Y
163	39	1	3,232,550.0	1,377,610.0	0.00	4.92	0.00	66	10.0	8.0	Y
164	40	1	3,232,550.0	1,377,530.0	0.00	4.92	0.00	66	10.0	8.0	Y
165	41	1	3,232,550.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
166	42	1	3,232,490.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
167	43	1	3,232,480.0	1,377,570.0	0.00	4.92	0.00	66	10.0	8.0	Y
168	44	1	3,232,480.0	1,377,620.0	0.00	4.92	0.00	66	10.0	8.0	Y
169	45	1	3,232,470.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
170	46	1	3,232,400.0	1,377,710.0	0.00	4.92	0.00	66	10.0	8.0	Y
171	47	1	3,232,340.0	1,377,700.0	0.00	4.92	0.00	66	10.0	8.0	Y
172	48	1	3,232,330.0	1,377,660.0	0.00	4.92	0.00	66	10.0	8.0	Y
173	49	1	3,232,330.0	1,377,620.0	0.00	4.92	0.00	66	10.0	8.0	Y
174	50	1	3,232,330.0	1,377,570.0	0.00	4.92	0.00	66	10.0	8.0	Y
175	51	1	3,232,330.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
176	52	1	3,232,270.0	1,377,490.0	0.00	4.92	0.00	66	10.0	8.0	Y
177	53	1	3,232,260.0	1,377,540.0	0.00	4.92	0.00	66	10.0	8.0	Y
178	54	1	3,232,260.0	1,377,600.0	0.00	4.92	0.00	66	10.0	8.0	Y
179	55	1	3,232,260.0	1,377,690.0	0.00	4.92	0.00	66	10.0	8.0	Y
180	56	1	3,232,270.0	1,377,780.0	0.00	4.92	0.00	66	10.0	8.0	Y
181	57	1	3,231,840.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
182	58	1	3,231,840.0	1,377,610.0	0.00	14.92	0.00	66	10.0	8.0	Y



**INPUT: RECEIVERS****Constitution Avenue**

183	59	1	3,231,840.0	1,377,580.0	0.00	14.92	0.00	66	10.0	8.0	Y
184	60	1	3,231,840.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
185	61	1	3,231,840.0	1,377,480.0	0.00	14.92	0.00	66	10.0	8.0	Y
186	62	1	3,231,900.0	1,377,480.0	0.00	14.92	0.00	66	10.0	8.0	Y
187	63	1	3,231,910.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
188	64	1	3,231,910.0	1,377,600.0	0.00	14.92	0.00	66	10.0	8.0	Y
189	65	1	3,231,910.0	1,377,660.0	0.00	14.92	0.00	66	10.0	8.0	Y
190	66	1	3,231,920.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y
191	67	1	3,231,960.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y
192	68	1	3,232,000.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y
193	69	1	3,232,040.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
194	70	1	3,232,050.0	1,377,660.0	0.00	14.92	0.00	66	10.0	8.0	Y
195	71	1	3,232,050.0	1,377,600.0	0.00	14.92	0.00	66	10.0	8.0	Y
196	72	1	3,232,050.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
197	73	1	3,232,060.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
198	74	1	3,232,120.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
199	75	1	3,232,120.0	1,377,550.0	0.00	14.92	0.00	66	10.0	8.0	Y
200	76	1	3,232,120.0	1,377,610.0	0.00	14.92	0.00	66	10.0	8.0	Y
201	77	1	3,232,120.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
202	78	1	3,232,110.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
203	79	1	3,232,080.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
204	80	1	3,232,040.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
205	81	1	3,232,010.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
206	82	1	3,231,950.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
207	83	1	3,231,920.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
208	84	1	3,232,270.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
209	85	1	3,232,260.0	1,377,690.0	0.00	14.92	0.00	66	10.0	8.0	Y
210	86	1	3,232,260.0	1,377,600.0	0.00	14.92	0.00	66	10.0	8.0	Y
211	87	1	3,232,260.0	1,377,540.0	0.00	14.92	0.00	66	10.0	8.0	Y
212	88	1	3,232,270.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
213	89	1	3,232,330.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
214	90	1	3,232,330.0	1,377,570.0	0.00	14.92	0.00	66	10.0	8.0	Y
215	91	1	3,232,330.0	1,377,620.0	0.00	14.92	0.00	66	10.0	8.0	Y
216	92	1	3,232,330.0	1,377,660.0	0.00	14.92	0.00	66	10.0	8.0	Y
217	93	1	3,232,340.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
218	94	1	3,232,400.0	1,377,710.0	0.00	14.92	0.00	66	10.0	8.0	Y

**INPUT: RECEIVERS**

**Constitution Avenue**

219	95	1	3,232,470.0	1,377,700.0	0.00	14.92	0.00	66	10.0	8.0	Y
220	96	1	3,232,480.0	1,377,620.0	0.00	14.92	0.00	66	10.0	8.0	Y
221	97	1	3,232,480.0	1,377,570.0	0.00	14.92	0.00	66	10.0	8.0	Y
222	98	1	3,232,490.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
223	99	1	3,232,550.0	1,377,490.0	0.00	14.92	0.00	66	10.0	8.0	Y
224	100	1	3,232,550.0	1,377,530.0	0.00	14.92	0.00	66	10.0	8.0	Y
225	101	1	3,232,550.0	1,377,610.0	0.00	14.92	0.00	66	10.0	8.0	Y
226	102	1	3,232,550.0	1,377,680.0	0.00	14.92	0.00	66	10.0	8.0	Y
227	103	1	3,232,540.0	1,377,730.0	0.00	14.92	0.00	66	10.0	8.0	Y
228	104	1	3,232,530.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
229	105	1	3,232,500.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
230	106	1	3,232,460.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
231	107	1	3,232,440.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
232	108	1	3,232,380.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
233	109	1	3,232,340.0	1,377,780.0	0.00	14.92	0.00	66	10.0	8.0	Y
234	111	1	3,232,310.0	1,377,770.0	0.00	14.92	0.00	66	10.0	8.0	Y
235	112	1	3,231,840.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
236	113	1	3,231,840.0	1,377,610.0	0.00	24.92	0.00	66	10.0	8.0	Y
237	114	1	3,231,840.0	1,377,580.0	0.00	24.92	0.00	66	10.0	8.0	Y
238	115	1	3,231,840.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
239	116	1	3,231,840.0	1,377,480.0	0.00	24.92	0.00	66	10.0	8.0	Y
240	117	1	3,231,900.0	1,377,480.0	0.00	24.92	0.00	66	10.0	8.0	Y
241	118	1	3,231,910.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
242	119	1	3,231,910.0	1,377,600.0	0.00	24.92	0.00	66	10.0	8.0	Y
243	120	1	3,231,910.0	1,377,660.0	0.00	24.92	0.00	66	10.0	8.0	Y
244	121	1	3,231,960.0	1,377,710.0	0.00	24.92	0.00	66	10.0	8.0	Y
245	122	1	3,232,000.0	1,377,710.0	0.00	24.92	0.00	66	10.0	8.0	Y
246	123	1	3,232,040.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
247	124	1	3,232,050.0	1,377,660.0	0.00	24.92	0.00	66	10.0	8.0	Y
248	125	1	3,232,050.0	1,377,600.0	0.00	24.92	0.00	66	10.0	8.0	Y
249	126	1	3,232,050.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
250	127	1	3,232,060.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
251	128	1	3,232,120.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
252	129	1	3,232,120.0	1,377,550.0	0.00	24.92	0.00	66	10.0	8.0	Y
253	130	1	3,232,120.0	1,377,610.0	0.00	24.92	0.00	66	10.0	8.0	Y
254	131	1	3,232,120.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y

**INPUT: RECEIVERS****Constitution Avenue**

255	132	1	3,232,110.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
256	133	1	3,232,080.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
257	134	1	3,232,040.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
258	135	1	3,232,010.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
259	136	1	3,231,950.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
260	137	1	3,232,270.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
261	138	1	3,232,260.0	1,377,690.0	0.00	24.92	0.00	66	10.0	8.0	Y
262	139	1	3,232,260.0	1,377,600.0	0.00	24.92	0.00	66	10.0	8.0	Y
263	140	1	3,232,260.0	1,377,540.0	0.00	24.92	0.00	66	10.0	8.0	Y
264	141	1	3,232,270.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
265	142	1	3,232,330.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
266	143	1	3,232,340.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
267	144	1	3,232,470.0	1,377,700.0	0.00	24.92	0.00	66	10.0	8.0	Y
268	145	1	3,232,490.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
269	146	1	3,232,550.0	1,377,490.0	0.00	24.92	0.00	66	10.0	8.0	Y
270	147	1	3,232,550.0	1,377,530.0	0.00	24.92	0.00	66	10.0	8.0	Y
271	148	1	3,232,550.0	1,377,610.0	0.00	24.92	0.00	66	10.0	8.0	Y
272	149	1	3,232,550.0	1,377,680.0	0.00	24.92	0.00	66	10.0	8.0	Y
273	150	1	3,232,540.0	1,377,730.0	0.00	24.92	0.00	66	10.0	8.0	Y
274	151	1	3,232,530.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
275	152	1	3,232,500.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
276	153	1	3,232,460.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
277	154	1	3,232,440.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
278	155	1	3,232,380.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
279	156	1	3,232,340.0	1,377,780.0	0.00	24.92	0.00	66	10.0	8.0	Y
280	157	1	3,232,310.0	1,377,770.0	0.00	24.92	0.00	66	10.0	8.0	Y

INPUT: BARRIERS

Constitution Avenue

Kimley-Horn	27 January 2022
AH	TNM 2.5

INPUT: BARRIERS

PROJECT/CONTRACT: Constitution Avenue  
 RUN: Build

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	\$ per	\$ per	Top	Run:Rise	\$ per			X	Y	Z	at	Seg	Ht	Perturbs	On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
		ft	ft	Area	Vol.		ft:ft	Length			ft	ft	ft	ft	ment				tions?
				\$/sq ft	\$/cu yd			\$/ft											
Barrier1	W	0.00	99.99	0.00				0.00	point1	1	3,231,845.5	1,377,774.8	0.00	30.00	0.00	0	0		
									point2	2	3,232,113.8	1,377,775.8	0.00	30.00	0.00	0	0		
									point3	3	3,232,117.8	1,377,492.4	0.00	30.00	0.00	0	0		
									point4	4	3,232,055.8	1,377,492.4	0.00	30.00	0.00	0	0		
									point5	5	3,232,053.2	1,377,713.4	0.00	30.00	0.00	0	0		
									point6	6	3,231,904.2	1,377,715.1	0.00	30.00	0.00	0	0		
									point7	7	3,231,906.0	1,377,484.8	0.00	30.00	0.00	0	0		
									point8	8	3,231,843.0	1,377,488.0	0.00	30.00	0.00	0	0		
									point9	9	3,231,846.2	1,377,768.1	0.00	30.00					
Barrier2	W	0.00	99.99	0.00				0.00	point10	10	3,232,264.0	1,377,503.0	0.00	30.00	0.00	0	0		
									point11	11	3,232,262.2	1,377,763.6	0.00	30.00	0.00	0	0		
									point12	12	3,232,532.8	1,377,772.8	0.00	30.00	0.00	0	0		
									point13	13	3,232,546.8	1,377,493.1	0.00	30.00	0.00	0	0		
									point14	14	3,232,489.8	1,377,493.9	0.00	30.00	0.00	0	0		
									point15	15	3,232,481.5	1,377,713.1	0.00	30.00	0.00	0	0		
									point16	16	3,232,323.2	1,377,714.6	0.00	30.00	0.00	0	0		
									point17	17	3,232,329.5	1,377,494.8	0.00	30.00	0.00	0	0		
									point18	18	3,232,262.5	1,377,494.8	0.00	30.00					

**INPUT: BUILDING ROWS**

**Constitution Avenue**

Kimley-Horn			27 January 2022			
AH			TNM 2.5			
INPUT: BUILDING ROWS						
PROJECT/CONTRACT:		Constitution Avenue				
RUN:		Build				
Building Row			Points			
Name	Average Height	Building Percent	No.	Coordinates (ground)		
	ft	%		X	Y	Z
				ft	ft	ft
<< This table is empty >>						

**INPUT: TERRAIN LINES**

Kimley-Horn				27 January 2022
AH				TNM 2.5
<b>INPUT: TERRAIN LINES</b>				
<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>			
<b>RUN:</b>	<b>Build</b>			
<b>Terrain Line</b>	<b>Points</b>			
<b>Name</b>	<b>No.</b>	<b>Coordinates (ground)</b>		
		<b>X</b>	<b>Y</b>	<b>Z</b>
		ft	ft	ft
<< This table is empty >>				

**Constitution Avenue**

**INPUT: GROUND ZONES**

**Constitution Avenue**

Kimley-Horn AH			27 January 2022 TNM 2.5		
INPUT: GROUND ZONES					
PROJECT/CONTRACT:		Constitution Avenue			
RUN:		Build			
Ground Zone			Points		
Name	Type	Flow Resistivity	No.	Coordinates	
		cgs rayls		X	Y
				ft	ft
Ground Zone1	Pavement	20000	15	3,230,793.0	1,377,906.5
			16	3,231,422.8	1,377,914.9
			17	3,231,472.8	1,377,939.9
			18	3,231,472.8	1,378,010.8
			19	3,231,406.0	1,378,223.5
			20	3,231,335.2	1,378,340.2
			21	3,231,326.8	1,378,452.9
			22	3,231,406.0	1,378,457.0
			23	3,231,435.2	1,378,361.1
			24	3,231,518.8	1,378,215.1
			25	3,231,568.8	1,378,056.6
			26	3,231,589.5	1,377,960.8
			27	3,231,602.0	1,377,931.6
			57	3,231,960.8	1,377,927.4
			56	3,232,498.8	1,377,939.9
			55	3,232,557.0	1,377,969.1
			54	3,232,586.2	1,378,023.4
			53	3,232,586.2	1,378,628.0
			52	3,232,598.8	1,379,070.1
			51	3,232,723.8	1,379,061.8
			50	3,232,736.2	1,378,444.5
			49	3,232,736.2	1,378,040.0
			48	3,232,761.5	1,377,977.5

**INPUT: GROUND ZONES****Constitution Avenue**

			47	3,232,803.0	1,377,939.9
			46	3,233,232.8	1,377,944.1
			45	3,233,578.8	1,377,944.1
			44	3,233,583.0	1,377,844.0
			43	3,233,299.2	1,377,835.6
			42	3,232,824.0	1,377,827.4
			41	3,232,761.5	1,377,810.6
			40	3,232,740.5	1,377,764.8
			39	3,232,740.5	1,377,189.2
			38	3,232,598.8	1,377,201.8
			37	3,232,594.5	1,377,735.6
			36	3,232,590.5	1,377,785.6
			28	3,232,544.5	1,377,819.0
			29	3,232,457.0	1,377,814.8
			30	3,231,681.2	1,377,802.2
			31	3,230,809.8	1,377,794.0



**INPUT: TREE ZONES**

**Constitution Avenue**

Kimley-Horn				27 January 2022	
AH				TNM 2.5	
<b>INPUT: TREE ZONES</b>					
<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>				
<b>RUN:</b>	<b>Build</b>				
<b>Tree Zone</b>		<b>Points</b>			
<b>Name</b>	<b>Average</b>	<b>No.</b>	<b>Coordinates (ground)</b>		
	<b>Height</b>		<b>X</b>	<b>Y</b>	<b>Z</b>
	ft		ft	ft	ft
<< This table is empty >>					

**INPUT: CONTOUR ZONES**

**Constitution Avenue**

<b>Kimley-Horn</b>				<b>27 January 2022</b>	
<b>AH</b>				<b>TNM 2.5</b>	
<b>INPUT: CONTOUR ZONES</b>					
<b>PROJECT/CONTRACT:</b>		<b>Constitution Avenue</b>			
<b>RUN:</b>		<b>Build</b>			
<b>Contour Zone</b>				<b>Points</b>	
<b>Name</b>	<b>Grid Height</b>	<b>Minimum Grid Spacing</b>	<b>Contour Tolerance</b>	<b>No.</b>	<b>Coordinates</b>
					<b>X Y</b>
	ft	ft	dB		ft ft
<b>&lt;&lt; This table is empty &gt;&gt;</b>					

**INPUT: RECEIVER ADJUSTMENT FACTORS**

**Constitution Avenue**

Kimley-Horn AH			27 January 2022 TNM 2.5		
<b>INPUT: RECEIVER ADJUSTMENT FACTORS</b>					
<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>				
<b>RUN:</b>	<b>Build</b>				
<b>Receiver</b>					
<b>Name</b>	<b>No.</b>	<b>Individual Roadway Segment Adjustment Factors</b>			
		<b>Roadway</b>	<b>Segment</b>		
		<b>Name</b>	<b>Name</b>	<b>No.</b>	<b>Adj. Factor</b>
					<b>dB</b>
<b>&lt;&lt; This table is empty &gt;&gt;</b>					

**INPUT: "STRUCTURE" BARRIERS**

**Constitution Avenue**

Kimley-Horn			27 January 2022		
AH			TNM 2.5		
<b>INPUT: "STRUCTURE" BARRIERS</b>					
<b>PROJECT/CONTRACT:</b>		<b>Constitution Avenue</b>			
<b>RUN:</b>		<b>Build</b>			
<b>Barrier</b>	<b>Segments</b>		<b>Shielded Roadways</b>		<b>Segments</b>
<b>Name</b>	<b>Name</b>	<b>No.</b>	<b>Name</b>	<b>Name</b>	<b>No.</b>
<< This table is empty >>					

**INPUT: BARRIER NOISE REDUCTION COEFFICIENTS**

**Constitution Avenue**

Kimley-Horn					27 January 2022		
AH					TNM 2.5		

**INPUT: BARRIER NOISE REDUCTION COEFFICIENTS**

**PROJECT/CONTRACT:** Constitution Avenue

**RUN:** Build

Barrier Name	Segments				Reflected Roadways		Segments	
	Name	No.	NRC		Name	Name	No.	
			L Side	R Side				
Barrier1	point1	1	0.0	0.0	---	---	0	
	point2	2	0.0	0.0	---	---	0	
	point3	3	0.0	0.0	---	---	0	
	point4	4	0.0	0.0	---	---	0	
	point5	5	0.0	0.0	---	---	0	
	point6	6	0.0	0.0	---	---	0	
	point7	7	0.0	0.0	---	---	0	
	point8	8	0.0	0.0	---	---	0	
Barrier2	point10	10	0.0	0.0	---	---	0	
	point11	11	0.0	0.0	---	---	0	
	point12	12	0.0	0.0	---	---	0	
	point13	13	0.0	0.0	---	---	0	
	point14	14	0.0	0.0	---	---	0	
	point15	15	0.0	0.0	---	---	0	
	point16	16	0.0	0.0	---	---	0	
	point17	17	0.0	0.0	---	---	0	

**RESULTS: BARRIER DESCRIPTIONS**

**Constitution Avenue**

Kimley-Horn				27 January 2022						
AH				TNM 2.5						

**RESULTS: BARRIER DESCRIPTIONS**

<b>PROJECT/CONTRACT:</b>	<b>Constitution Avenue</b>									
<b>RUN:</b>	<b>Build</b>									
<b>BARRIER DESIGN:</b>	<b>INPUT HEIGHTS</b>									

<b>Barriers</b>										
<b>Name</b>	<b>Type</b>	<b>Heights along Barrier</b>			<b>Length</b>	<b>If Wall</b>		<b>If Berm</b>		<b>Cost</b>
		<b>Min</b>	<b>Avg</b>	<b>Max</b>		<b>Area</b>	<b>Volume</b>	<b>Top</b>	<b>Run:Rise</b>	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	\$
Barrier1	W	30.00	30.00	30.00	1557	46719				0
Barrier2	W	30.00	30.00	30.00	1533	45987				0
									Total Cost:	0







**RESULTS: SOUND LEVELS**

**Constitution Avenue**

149	25	1	0.0	59.3	66	59.3	10	----	59.3	0.0	8	-8.0
150	26	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
151	27	1	0.0	61.1	66	61.1	10	----	61.1	0.0	8	-8.0
152	28	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0
153	29	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
154	30	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
155	31	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
156	32	1	0.0	70.6	66	70.6	10	Snd Lvl	70.6	0.0	8	-8.0
157	33	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
158	34	1	0.0	70.9	66	70.9	10	Snd Lvl	70.9	0.0	8	-8.0
159	35	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	8	-8.0
160	36	1	0.0	72.4	66	72.4	10	Snd Lvl	72.4	0.0	8	-8.0
161	37	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0
162	38	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0
163	39	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
164	40	1	0.0	70.6	66	70.6	10	Snd Lvl	70.6	0.0	8	-8.0
165	41	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
166	42	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
167	43	1	0.0	44.7	66	44.7	10	----	44.7	0.0	8	-8.0
168	44	1	0.0	44.6	66	44.6	10	----	44.6	0.0	8	-8.0
169	45	1	0.0	43.8	66	43.8	10	----	43.8	0.0	8	-8.0
170	46	1	0.0	45.7	66	45.7	10	----	45.7	0.0	8	-8.0
171	47	1	0.0	52.6	66	52.6	10	----	52.6	0.0	8	-8.0
172	48	1	0.0	53.2	66	53.2	10	----	53.2	0.0	8	-8.0
173	49	1	0.0	54.6	66	54.6	10	----	54.6	0.0	8	-8.0
174	50	1	0.0	56.7	66	56.7	10	----	56.7	0.0	8	-8.0
175	51	1	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
176	52	1	0.0	57.4	66	57.4	10	----	57.4	0.0	8	-8.0
177	53	1	0.0	56.6	66	56.6	10	----	56.6	0.0	8	-8.0
178	54	1	0.0	58.7	66	58.7	10	----	58.7	0.0	8	-8.0
179	55	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
180	56	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
181	57	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
182	58	1	0.0	61.7	66	61.7	10	----	61.7	0.0	8	-8.0
183	59	1	0.0	61.1	66	61.1	10	----	61.1	0.0	8	-8.0
184	60	1	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0
185	61	1	0.0	59.9	66	59.9	10	----	59.9	0.0	8	-8.0
186	62	1	0.0	53.1	66	53.1	10	----	53.1	0.0	8	-8.0
187	63	1	0.0	49.9	66	49.9	10	----	49.9	0.0	8	-8.0
188	64	1	0.0	42.9	66	42.9	10	----	42.9	0.0	8	-8.0
189	65	1	0.0	41.8	66	41.8	10	----	41.8	0.0	8	-8.0

**RESULTS: SOUND LEVELS**

**Constitution Avenue**

190	66	1	0.0	41.6	66	41.6	10	----	41.6	0.0	8	-8.0
191	67	1	0.0	41.4	66	41.4	10	----	41.4	0.0	8	-8.0
192	68	1	0.0	41.0	66	41.0	10	----	41.0	0.0	8	-8.0
193	69	1	0.0	41.3	66	41.3	10	----	41.3	0.0	8	-8.0
194	70	1	0.0	40.9	66	40.9	10	----	40.9	0.0	8	-8.0
195	71	1	0.0	41.9	66	41.9	10	----	41.9	0.0	8	-8.0
196	72	1	0.0	43.5	66	43.5	10	----	43.5	0.0	8	-8.0
197	73	1	0.0	54.9	66	54.9	10	----	54.9	0.0	8	-8.0
198	74	1	0.0	59.0	66	59.0	10	----	59.0	0.0	8	-8.0
199	75	1	0.0	59.3	66	59.3	10	----	59.3	0.0	8	-8.0
200	76	1	0.0	60.4	66	60.4	10	----	60.4	0.0	8	-8.0
201	77	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
202	78	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
203	79	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
204	80	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
205	81	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
206	82	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
207	83	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
208	84	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
209	85	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0
210	86	1	0.0	58.5	66	58.5	10	----	58.5	0.0	8	-8.0
211	87	1	0.0	56.6	66	56.6	10	----	56.6	0.0	8	-8.0
212	88	1	0.0	58.5	66	58.5	10	----	58.5	0.0	8	-8.0
213	89	1	0.0	60.1	66	60.1	10	----	60.1	0.0	8	-8.0
214	90	1	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
215	91	1	0.0	55.8	66	55.8	10	----	55.8	0.0	8	-8.0
216	92	1	0.0	54.5	66	54.5	10	----	54.5	0.0	8	-8.0
217	93	1	0.0	53.9	66	53.9	10	----	53.9	0.0	8	-8.0
218	94	1	0.0	47.4	66	47.4	10	----	47.4	0.0	8	-8.0
219	95	1	0.0	45.7	66	45.7	10	----	45.7	0.0	8	-8.0
220	96	1	0.0	45.8	66	45.8	10	----	45.8	0.0	8	-8.0
221	97	1	0.0	45.9	66	45.9	10	----	45.9	0.0	8	-8.0
222	98	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
223	99	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
224	100	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
225	101	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
226	102	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
227	103	1	0.0	70.6	66	70.6	10	Snd Lvl	70.6	0.0	8	-8.0
228	104	1	0.0	72.0	66	72.0	10	Snd Lvl	72.0	0.0	8	-8.0
229	105	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
230	106	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0

**RESULTS: SOUND LEVELS**

**Constitution Avenue**

231	107	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
232	108	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
233	109	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
234	111	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
235	112	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
236	113	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
237	114	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
238	115	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
239	116	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
240	117	1	0.0	53.4	66	53.4	10	----	53.4	0.0	8	-8.0
241	118	1	0.0	50.6	66	50.6	10	----	50.6	0.0	8	-8.0
242	119	1	0.0	44.9	66	44.9	10	----	44.9	0.0	8	-8.0
243	120	1	0.0	45.1	66	45.1	10	----	45.1	0.0	8	-8.0
244	121	1	0.0	45.2	66	45.2	10	----	45.2	0.0	8	-8.0
245	122	1	0.0	45.4	66	45.4	10	----	45.4	0.0	8	-8.0
246	123	1	0.0	45.0	66	45.0	10	----	45.0	0.0	8	-8.0
247	124	1	0.0	44.4	66	44.4	10	----	44.4	0.0	8	-8.0
248	125	1	0.0	44.2	66	44.2	10	----	44.2	0.0	8	-8.0
249	126	1	0.0	44.9	66	44.9	10	----	44.9	0.0	8	-8.0
250	127	1	0.0	55.2	66	55.2	10	----	55.2	0.0	8	-8.0
251	128	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0
252	129	1	0.0	59.3	66	59.3	10	----	59.3	0.0	8	-8.0
253	130	1	0.0	60.4	66	60.4	10	----	60.4	0.0	8	-8.0
254	131	1	0.0	64.0	66	64.0	10	----	64.0	0.0	8	-8.0
255	132	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
256	133	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
257	134	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
258	135	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
259	136	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
260	137	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
261	138	1	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
262	139	1	0.0	58.5	66	58.5	10	----	58.5	0.0	8	-8.0
263	140	1	0.0	56.6	66	56.6	10	----	56.6	0.0	8	-8.0
264	141	1	0.0	58.6	66	58.6	10	----	58.6	0.0	8	-8.0
265	142	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
266	143	1	0.0	54.3	66	54.3	10	----	54.3	0.0	8	-8.0
267	144	1	0.0	47.1	66	47.1	10	----	47.1	0.0	8	-8.0
268	145	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
269	146	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
270	147	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
271	148	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0

**RESULTS: SOUND LEVELS**

**Constitution Avenue**

272	149	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
273	150	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
274	151	1	0.0	71.8	66	71.8	10	Snd Lvl	71.8	0.0	8	-8.0
275	152	1	0.0	70.6	66	70.6	10	Snd Lvl	70.6	0.0	8	-8.0
276	153	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
277	154	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
278	155	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
279	156	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
280	157	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>									
			<b>Min</b>	<b>Avg</b>	<b>Max</b>							
			<b>dB</b>	<b>dB</b>	<b>dB</b>							
All Selected		156	0.0	0.0	0.0							
All Impacted		58	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT**

**Constitution Avenue**

Kimley-Horn				27 January 2022
AH				TNM 2.5
				Calculated with TNM 2.5

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT**

**PROJECT/CONTRACT:** Constitution Avenue

**RUN:** Build

**BARRIER DESIGN:** INPUT HEIGHTS

**ATMOSPHERICS:** 68 deg F, 50% RH

**Selected Receivers**

Name	No.	Total	Important Barriers	Important Segments		
		LAeq1h	Name	Name	No.	Partial
		dBA				LAeq1h
		dBA				dBA
125	1	66.20				
126	2	70.50				
127	3	70.50				
128	4	70.40				
129	5	70.40				
130	6	70.40				
131	7	70.40				
132	8	70.40				
133	9	64.30				
134	10	60.30				
135	11	58.80				
136	12	58.20				
137	13	53.40				
138	14	43.00				
139	15	41.00				
140	16	40.00				
141	17	39.00				
142	18	37.70				
143	19	37.70				
144	20	38.10				

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT****Constitution Avenue**

145	21	40.70			
146	22	41.60			
147	23	48.30			
148	24	51.70			
149	25	59.30			
150	26	60.20			
151	27	61.10			
152	28	61.80			
153	29	64.50			
154	30	70.00			
155	31	70.50			
156	32	70.60			
157	33	70.80			
158	34	70.90			
159	35	71.20			
160	36	72.40			
161	37	71.10			
162	38	71.10			
163	39	70.80			
164	40	70.60			
165	41	70.40			
166	42	64.50			
167	43	44.70			
168	44	44.60			
169	45	43.80			
170	46	45.70			
171	47	52.60			
172	48	53.20			
173	49	54.60			
174	50	56.70			
175	51	59.60			
176	52	57.40			
177	53	56.60			
178	54	58.70			
179	55	62.60			
180	56	70.40			

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT**

**Constitution Avenue**

181	57	64.10			
182	58	61.70			
183	59	61.10			
184	60	60.30			
185	61	59.90			
186	62	53.10			
187	63	49.90			
188	64	42.90			
189	65	41.80			
190	66	41.60			
191	67	41.40			
192	68	41.00			
193	69	41.30			
194	70	40.90			
195	71	41.90			
196	72	43.50			
197	73	54.90			
198	74	59.00			
199	75	59.30			
200	76	60.40			
201	77	63.90			
202	78	70.10			
203	79	70.10			
204	80	70.10			
205	81	70.10			
206	82	70.20			
207	83	70.20			
208	84	70.10			
209	85	62.20			
210	86	58.50			
211	87	56.60			
212	88	58.50			
213	89	60.10			
214	90	57.60			
215	91	55.80			
216	92	54.50			

**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT**

**Constitution Avenue**

217	93	53.90			
218	94	47.40			
219	95	45.70			
220	96	45.80			
221	97	45.90			
222	98	64.20			
223	99	70.10			
224	100	70.20			
225	101	70.40			
226	102	70.70			
227	103	70.60			
228	104	72.00			
229	105	70.80			
230	106	70.50			
231	107	70.40			
232	108	70.20			
233	109	70.20			
234	111	69.60			
235	112	64.30			
236	113	61.60			
237	114	61.00			
238	115	60.20			
239	116	60.00			
240	117	53.40			
241	118	50.60			
242	119	44.90			
243	120	45.10			
244	121	45.20			
245	122	45.40			
246	123	45.00			
247	124	44.40			
248	125	44.20			
249	126	44.90			
250	127	55.20			
251	128	59.10			
252	129	59.30			



**RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT****Constitution Avenue**

253	130	60.40			
254	131	64.00			
255	132	69.80			
256	133	69.80			
257	134	69.80			
258	135	69.80			
259	136	69.90			
260	137	69.80			
261	138	62.30			
262	139	58.50			
263	140	56.60			
264	141	58.60			
265	142	60.00			
266	143	54.30			
267	144	47.10			
268	145	64.30			
269	146	69.90			
270	147	70.00			
271	148	70.20			
272	149	70.50			
273	150	70.50			
274	151	71.80			
275	152	70.60			
276	153	70.20			
277	154	70.10			
278	155	69.90			
279	156	69.90			
280	157	69.50			

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

Constitution Avenue

Kimley-Horn AH			27 January 2022 TNM 2.5 Calculated with TNM 2.5	
<b>RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE</b>				
<b>PROJECT/CONTRACT:</b>	Constitution Avenue			
<b>RUN:</b>	Build			
<b>BARRIER DESIGN:</b>	INPUT HEIGHTS			
<b>ATMOSPHERICS:</b>	68 deg F, 50% RH			
<b>Receivers</b>				
<b>Name</b>	<b>No.</b>	<b>Total LAeq1h</b>	<b>Vehicle Type Name</b>	<b>Partial LAeq1h</b>
		dBA		dBA
125	1	66.2	Autos	65.7
			MTrucks	52.3
			HTrucks	55.2
			Buses	
			Motorcycles	
126	2	70.5	Autos	69.9
			MTrucks	56.6
			HTrucks	59.6
			Buses	
			Motorcycles	
127	3	70.5	Autos	69.9
			MTrucks	56.5
			HTrucks	59.6
			Buses	
			Motorcycles	
128	4	70.4	Autos	69.9
			MTrucks	56.5
			HTrucks	59.5
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

129	5	70.4	Autos	69.8
			MTrucks	56.5
			HTrucks	59.5
			Buses	
			Motorcycles	
130	6	70.4	Autos	69.8
			MTrucks	56.5
			HTrucks	59.5
			Buses	
			Motorcycles	
131	7	70.4	Autos	69.8
			MTrucks	56.5
			HTrucks	59.5
			Buses	
			Motorcycles	
132	8	70.4	Autos	69.8
			MTrucks	56.5
			HTrucks	59.5
			Buses	
			Motorcycles	
133	9	64.3	Autos	63.8
			MTrucks	50.7
			HTrucks	53.4
			Buses	
			Motorcycles	
134	10	60.3	Autos	59.7
			MTrucks	46.6
			HTrucks	49.4
			Buses	
			Motorcycles	
135	11	58.8	Autos	58.2
			MTrucks	45.1
			HTrucks	48.3
			Buses	
			Motorcycles	
136	12	58.2	Autos	57.5

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	44.6
			HTrucks	48.1
			Buses	
			Motorcycles	
137	13	53.4	Autos	52.7
			MTrucks	39.9
			HTrucks	44.0
			Buses	
			Motorcycles	
138	14	43.0	Autos	42.7
			MTrucks	24.5
			HTrucks	29.5
			Buses	
			Motorcycles	
139	15	41.0	Autos	40.5
			MTrucks	24.7
			HTrucks	29.7
			Buses	
			Motorcycles	
140	16	40.0	Autos	39.4
			MTrucks	25.3
			HTrucks	30.1
			Buses	
			Motorcycles	
141	17	39.0	Autos	38.3
			MTrucks	25.2
			HTrucks	29.3
			Buses	
			Motorcycles	
142	18	37.7	Autos	36.9
			MTrucks	23.2
			HTrucks	28.6
			Buses	
			Motorcycles	
143	19	37.7	Autos	36.9
			MTrucks	23.5

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	29.0
			Buses	
			Motorcycles	
144	20	38.1	Autos	37.2
			MTrucks	23.9
			HTrucks	29.4
			Buses	
			Motorcycles	
145	21	40.7	Autos	39.9
			MTrucks	26.3
			HTrucks	31.9
			Buses	
			Motorcycles	
146	22	41.6	Autos	40.9
			MTrucks	26.4
			HTrucks	32.0
			Buses	
			Motorcycles	
147	23	48.3	Autos	47.5
			MTrucks	34.3
			HTrucks	39.1
			Buses	
			Motorcycles	
148	24	51.7	Autos	50.9
			MTrucks	38.0
			HTrucks	42.2
			Buses	
			Motorcycles	
149	25	59.3	Autos	58.7
			MTrucks	45.5
			HTrucks	48.4
			Buses	
			Motorcycles	
150	26	60.2	Autos	59.7
			MTrucks	46.3
			HTrucks	48.9

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
151	27	61.1	Autos	60.5
			MTrucks	47.1
			HTrucks	49.8
			Buses	
			Motorcycles	
152	28	61.8	Autos	61.2
			MTrucks	47.8
			HTrucks	50.5
			Buses	
			Motorcycles	
153	29	64.5	Autos	64.0
			MTrucks	50.6
			HTrucks	53.2
			Buses	
			Motorcycles	
154	30	70.0	Autos	69.4
			MTrucks	56.3
			HTrucks	59.3
			Buses	
			Motorcycles	
155	31	70.5	Autos	69.9
			MTrucks	56.7
			HTrucks	59.8
			Buses	
			Motorcycles	
156	32	70.6	Autos	70.0
			MTrucks	56.8
			HTrucks	59.9
			Buses	
			Motorcycles	
157	33	70.8	Autos	70.2
			MTrucks	57.0
			HTrucks	60.2
			Buses	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
158	34	70.9	Autos	70.3
			MTrucks	57.1
			HTrucks	60.3
			Buses	
			Motorcycles	
159	35	71.2	Autos	70.6
			MTrucks	57.4
			HTrucks	60.8
			Buses	
			Motorcycles	
160	36	72.4	Autos	71.7
			MTrucks	58.6
			HTrucks	62.2
			Buses	
			Motorcycles	
161	37	71.1	Autos	70.4
			MTrucks	57.4
			HTrucks	61.2
			Buses	
			Motorcycles	
162	38	71.1	Autos	70.5
			MTrucks	57.4
			HTrucks	61.2
			Buses	
			Motorcycles	
163	39	70.8	Autos	70.2
			MTrucks	57.1
			HTrucks	60.9
			Buses	
			Motorcycles	
164	40	70.6	Autos	69.9
			MTrucks	56.8
			HTrucks	60.6
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

165	41	70.4	Autos	69.8
			MTrucks	56.6
			HTrucks	60.4
			Buses	
			Motorcycles	
166	42	64.5	Autos	63.8
			MTrucks	50.8
			HTrucks	54.4
			Buses	
			Motorcycles	
167	43	44.7	Autos	44.4
			MTrucks	26.7
			HTrucks	31.7
			Buses	
			Motorcycles	
168	44	44.6	Autos	44.3
			MTrucks	26.7
			HTrucks	31.9
			Buses	
			Motorcycles	
169	45	43.8	Autos	43.5
			MTrucks	26.0
			HTrucks	31.5
			Buses	
			Motorcycles	
170	46	45.7	Autos	45.2
			MTrucks	28.7
			HTrucks	34.3
			Buses	
			Motorcycles	
171	47	52.6	Autos	51.9
			MTrucks	38.4
			HTrucks	42.8
			Buses	
			Motorcycles	
172	48	53.2	Autos	52.5



**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	39.2
			HTrucks	43.6
			Buses	
			Motorcycles	
173	49	54.6	Autos	53.9
			MTrucks	40.6
			HTrucks	45.2
			Buses	
			Motorcycles	
174	50	56.7	Autos	56.0
			MTrucks	43.2
			HTrucks	47.3
			Buses	
			Motorcycles	
175	51	59.6	Autos	58.9
			MTrucks	46.1
			HTrucks	50.0
			Buses	
			Motorcycles	
176	52	57.4	Autos	56.7
			MTrucks	44.0
			HTrucks	47.8
			Buses	
			Motorcycles	
177	53	56.6	Autos	56.1
			MTrucks	42.7
			HTrucks	45.4
			Buses	
			Motorcycles	
178	54	58.7	Autos	58.1
			MTrucks	44.8
			HTrucks	47.4
			Buses	
			Motorcycles	
179	55	62.6	Autos	62.1
			MTrucks	48.9

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	51.3
			Buses	
			Motorcycles	
180	56	70.4	Autos	69.8
			MTrucks	56.6
			HTrucks	59.7
			Buses	
			Motorcycles	
181	57	64.1	Autos	63.6
			MTrucks	49.9
			HTrucks	53.3
			Buses	
			Motorcycles	
182	58	61.7	Autos	61.2
			MTrucks	47.8
			HTrucks	50.6
			Buses	
			Motorcycles	
183	59	61.1	Autos	60.5
			MTrucks	47.2
			HTrucks	49.9
			Buses	
			Motorcycles	
184	60	60.3	Autos	59.8
			MTrucks	46.5
			HTrucks	49.1
			Buses	
			Motorcycles	
185	61	59.9	Autos	59.4
			MTrucks	46.2
			HTrucks	49.1
			Buses	
			Motorcycles	
186	62	53.1	Autos	52.4
			MTrucks	39.3
			HTrucks	43.4

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
187	63	49.9	Autos	49.1
			MTrucks	36.0
			HTrucks	40.7
			Buses	
			Motorcycles	
188	64	42.9	Autos	42.2
			MTrucks	28.3
			HTrucks	33.4
			Buses	
			Motorcycles	
189	65	41.8	Autos	41.0
			MTrucks	27.7
			HTrucks	32.8
			Buses	
			Motorcycles	
190	66	41.6	Autos	40.7
			MTrucks	27.8
			HTrucks	33.1
			Buses	
			Motorcycles	
191	67	41.4	Autos	40.5
			MTrucks	27.6
			HTrucks	32.9
			Buses	
			Motorcycles	
192	68	41.0	Autos	40.1
			MTrucks	27.0
			HTrucks	32.3
			Buses	
			Motorcycles	
193	69	41.3	Autos	40.5
			MTrucks	27.5
			HTrucks	32.6
			Buses	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
194	70	40.9	Autos	40.2
			MTrucks	26.3
			HTrucks	31.5
			Buses	
			Motorcycles	
195	71	41.9	Autos	41.4
			MTrucks	26.5
			HTrucks	31.4
			Buses	
			Motorcycles	
196	72	43.5	Autos	43.1
			MTrucks	26.3
			HTrucks	31.5
			Buses	
			Motorcycles	
197	73	54.9	Autos	54.2
			MTrucks	41.3
			HTrucks	45.2
			Buses	
			Motorcycles	
198	74	59.0	Autos	58.4
			MTrucks	45.4
			HTrucks	48.7
			Buses	
			Motorcycles	
199	75	59.3	Autos	58.7
			MTrucks	45.6
			HTrucks	48.8
			Buses	
			Motorcycles	
200	76	60.4	Autos	59.8
			MTrucks	46.5
			HTrucks	49.7
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

201	77	63.9	Autos	63.3
			MTrucks	49.9
			HTrucks	53.4
			Buses	
			Motorcycles	
202	78	70.1	Autos	69.5
			MTrucks	56.0
			HTrucks	59.5
			Buses	
			Motorcycles	
203	79	70.1	Autos	69.5
			MTrucks	56.0
			HTrucks	59.4
			Buses	
			Motorcycles	
204	80	70.1	Autos	69.5
			MTrucks	56.0
			HTrucks	59.4
			Buses	
			Motorcycles	
205	81	70.1	Autos	69.5
			MTrucks	55.9
			HTrucks	59.4
			Buses	
			Motorcycles	
206	82	70.2	Autos	69.6
			MTrucks	56.0
			HTrucks	59.5
			Buses	
			Motorcycles	
207	83	70.2	Autos	69.6
			MTrucks	56.0
			HTrucks	59.5
			Buses	
			Motorcycles	
208	84	70.1	Autos	69.5

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	56.0
			HTrucks	59.6
			Buses	
			Motorcycles	
209	85	62.2	Autos	61.6
			MTrucks	48.0
			HTrucks	51.4
			Buses	
			Motorcycles	
210	86	58.5	Autos	58.0
			MTrucks	44.7
			HTrucks	47.5
			Buses	
			Motorcycles	
211	87	56.6	Autos	56.1
			MTrucks	42.8
			HTrucks	45.5
			Buses	
			Motorcycles	
212	88	58.5	Autos	57.8
			MTrucks	44.9
			HTrucks	48.8
			Buses	
			Motorcycles	
213	89	60.1	Autos	59.4
			MTrucks	46.4
			HTrucks	50.3
			Buses	
			Motorcycles	
214	90	57.6	Autos	56.8
			MTrucks	43.9
			HTrucks	47.9
			Buses	
			Motorcycles	
215	91	55.8	Autos	55.1
			MTrucks	41.9

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	45.9
			Buses	
			Motorcycles	
216	92	54.5	Autos	53.8
			MTrucks	40.7
			HTrucks	44.6
			Buses	
			Motorcycles	
217	93	53.9	Autos	53.2
			MTrucks	39.9
			HTrucks	44.1
			Buses	
			Motorcycles	
218	94	47.4	Autos	46.9
			MTrucks	31.5
			HTrucks	36.7
			Buses	
			Motorcycles	
219	95	45.7	Autos	45.1
			MTrucks	30.2
			HTrucks	36.0
			Buses	
			Motorcycles	
220	96	45.8	Autos	45.3
			MTrucks	29.8
			HTrucks	35.6
			Buses	
			Motorcycles	
221	97	45.9	Autos	45.4
			MTrucks	29.8
			HTrucks	35.7
			Buses	
			Motorcycles	
222	98	64.2	Autos	63.5
			MTrucks	50.1
			HTrucks	54.4

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
223	99	70.1	Autos	69.4
			MTrucks	56.0
			HTrucks	60.3
			Buses	
			Motorcycles	
224	100	70.2	Autos	69.5
			MTrucks	56.1
			HTrucks	60.4
			Buses	
			Motorcycles	
225	101	70.4	Autos	69.7
			MTrucks	56.3
			HTrucks	60.7
			Buses	
			Motorcycles	
226	102	70.7	Autos	70.0
			MTrucks	56.7
			HTrucks	61.1
			Buses	
			Motorcycles	
227	103	70.6	Autos	69.9
			MTrucks	56.6
			HTrucks	61.0
			Buses	
			Motorcycles	
228	104	72.0	Autos	71.3
			MTrucks	57.9
			HTrucks	62.1
			Buses	
			Motorcycles	
229	105	70.8	Autos	70.2
			MTrucks	56.7
			HTrucks	60.7
			Buses	



**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
230	106	70.5	Autos	69.9
			MTrucks	56.4
			HTrucks	60.2
			Buses	
			Motorcycles	
231	107	70.4	Autos	69.8
			MTrucks	56.3
			HTrucks	60.1
			Buses	
			Motorcycles	
232	108	70.2	Autos	69.6
			MTrucks	56.2
			HTrucks	59.8
			Buses	
			Motorcycles	
233	109	70.2	Autos	69.6
			MTrucks	56.1
			HTrucks	59.7
			Buses	
			Motorcycles	
234	111	69.6	Autos	69.1
			MTrucks	55.5
			HTrucks	59.1
			Buses	
			Motorcycles	
235	112	64.3	Autos	63.7
			MTrucks	49.9
			HTrucks	53.5
			Buses	
			Motorcycles	
236	113	61.6	Autos	61.1
			MTrucks	47.4
			HTrucks	50.9
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

237	114	61.0	Autos	60.4
			MTrucks	46.8
			HTrucks	50.2
			Buses	
			Motorcycles	
238	115	60.2	Autos	59.7
			MTrucks	46.1
			HTrucks	49.3
			Buses	
			Motorcycles	
239	116	60.0	Autos	59.4
			MTrucks	46.1
			HTrucks	49.3
			Buses	
			Motorcycles	
240	117	53.4	Autos	52.7
			MTrucks	39.6
			HTrucks	43.6
			Buses	
			Motorcycles	
241	118	50.6	Autos	49.8
			MTrucks	36.7
			HTrucks	41.4
			Buses	
			Motorcycles	
242	119	44.9	Autos	44.1
			MTrucks	30.9
			HTrucks	35.6
			Buses	
			Motorcycles	
243	120	45.1	Autos	44.2
			MTrucks	31.5
			HTrucks	36.2
			Buses	
			Motorcycles	
244	121	45.2	Autos	44.3

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			MTrucks	31.9
			HTrucks	36.7
			Buses	
			Motorcycles	
245	122	45.4	Autos	44.4
			MTrucks	32.0
			HTrucks	37.0
			Buses	
			Motorcycles	
246	123	45.0	Autos	44.1
			MTrucks	31.6
			HTrucks	36.3
			Buses	
			Motorcycles	
247	124	44.4	Autos	43.6
			MTrucks	30.7
			HTrucks	35.6
			Buses	
			Motorcycles	
248	125	44.2	Autos	43.5
			MTrucks	29.9
			HTrucks	35.0
			Buses	
			Motorcycles	
249	126	44.9	Autos	44.4
			MTrucks	29.6
			HTrucks	34.6
			Buses	
			Motorcycles	
250	127	55.2	Autos	54.5
			MTrucks	41.4
			HTrucks	45.5
			Buses	
			Motorcycles	
251	128	59.1	Autos	58.4
			MTrucks	45.3

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			HTrucks	48.9
			Buses	
			Motorcycles	
252	129	59.3	Autos	58.7
			MTrucks	45.3
			HTrucks	48.9
			Buses	
			Motorcycles	
253	130	60.4	Autos	59.8
			MTrucks	46.2
			HTrucks	49.9
			Buses	
			Motorcycles	
254	131	64.0	Autos	63.4
			MTrucks	49.9
			HTrucks	53.5
			Buses	
			Motorcycles	
255	132	69.8	Autos	69.2
			MTrucks	55.9
			HTrucks	59.3
			Buses	
			Motorcycles	
256	133	69.8	Autos	69.2
			MTrucks	55.9
			HTrucks	59.2
			Buses	
			Motorcycles	
257	134	69.8	Autos	69.2
			MTrucks	55.9
			HTrucks	59.2
			Buses	
			Motorcycles	
258	135	69.8	Autos	69.2
			MTrucks	55.9
			HTrucks	59.3

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Buses	
			Motorcycles	
259	136	69.9	Autos	69.3
			MTrucks	55.9
			HTrucks	59.3
			Buses	
			Motorcycles	
260	137	69.8	Autos	69.2
			MTrucks	55.9
			HTrucks	59.4
			Buses	
			Motorcycles	
261	138	62.3	Autos	61.8
			MTrucks	48.0
			HTrucks	51.8
			Buses	
			Motorcycles	
262	139	58.5	Autos	57.9
			MTrucks	44.2
			HTrucks	47.9
			Buses	
			Motorcycles	
263	140	56.6	Autos	56.0
			MTrucks	42.4
			HTrucks	45.9
			Buses	
			Motorcycles	
264	141	58.6	Autos	57.9
			MTrucks	44.8
			HTrucks	49.0
			Buses	
			Motorcycles	
265	142	60.0	Autos	59.3
			MTrucks	46.1
			HTrucks	50.3
			Buses	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

			Motorcycles	
266	143	54.3	Autos	53.5
			MTrucks	40.2
			HTrucks	44.7
			Buses	
			Motorcycles	
267	144	47.1	Autos	46.4
			MTrucks	32.6
			HTrucks	37.8
			Buses	
			Motorcycles	
268	145	64.3	Autos	63.6
			MTrucks	50.1
			HTrucks	54.6
			Buses	
			Motorcycles	
269	146	69.9	Autos	69.2
			MTrucks	55.8
			HTrucks	60.2
			Buses	
			Motorcycles	
270	147	70.0	Autos	69.3
			MTrucks	55.9
			HTrucks	60.3
			Buses	
			Motorcycles	
271	148	70.2	Autos	69.5
			MTrucks	56.2
			HTrucks	60.5
			Buses	
			Motorcycles	
272	149	70.5	Autos	69.8
			MTrucks	56.5
			HTrucks	61.0
			Buses	
			Motorcycles	

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

**Constitution Avenue**

273	150	70.5	Autos	69.9
			MTrucks	56.5
			HTrucks	60.9
			Buses	
			Motorcycles	
274	151	71.8	Autos	71.1
			MTrucks	57.8
			HTrucks	61.9
			Buses	
			Motorcycles	
275	152	70.6	Autos	70.0
			MTrucks	56.6
			HTrucks	60.7
			Buses	
			Motorcycles	
276	153	70.2	Autos	69.6
			MTrucks	56.3
			HTrucks	60.0
			Buses	
			Motorcycles	
277	154	70.1	Autos	69.5
			MTrucks	56.2
			HTrucks	59.8
			Buses	
			Motorcycles	
278	155	69.9	Autos	69.3
			MTrucks	56.0
			HTrucks	59.5
			Buses	
			Motorcycles	
279	156	69.9	Autos	69.3
			MTrucks	56.0
			HTrucks	59.5
			Buses	
			Motorcycles	
280	157	69.5	Autos	68.9

**RESULTS: SOUND-LEVEL DIAGNOSIS BY VEHICLE TYPE**

			MTrucks	55.5
			HTrucks	59.0
			Buses	
			Motorcycles	

**Constitution Avenue**





**RESULTS: BARRIER DESIGN****Constitution Avenue**

146	22	41.6	-0.0	8	-8.0					
147	23	48.3	0.0	8	-8.0					
148	24	51.7	-0.0	8	-8.0					
149	25	59.3	-0.0	8	-8.0					
150	26	60.2	0.0	8	-8.0					
151	27	61.1	-0.0	8	-8.0					
152	28	61.8	-0.0	8	-8.0					
153	29	64.5	0.0	8	-8.0					
154	30	70.0	0.0	8	-8.0					
155	31	70.5	-0.0	8	-8.0					
156	32	70.6	-0.0	8	-8.0					
157	33	70.8	-0.0	8	-8.0					
158	34	70.9	-0.0	8	-8.0					
159	35	71.2	-0.0	8	-8.0					
160	36	72.4	-0.0	8	-8.0					
161	37	71.1	-0.0	8	-8.0					
162	38	71.1	0.0	8	-8.0					
163	39	70.8	0.0	8	-8.0					
164	40	70.6	-0.0	8	-8.0					
165	41	70.4	0.0	8	-8.0					
166	42	64.5	-0.0	8	-8.0					
167	43	44.7	-0.0	8	-8.0					
168	44	44.6	0.0	8	-8.0					
169	45	43.8	0.0	8	-8.0					
170	46	45.7	-0.0	8	-8.0					
171	47	52.6	-0.0	8	-8.0					
172	48	53.2	-0.0	8	-8.0					
173	49	54.6	-0.0	8	-8.0					
174	50	56.7	0.0	8	-8.0					
175	51	59.6	0.0	8	-8.0					
176	52	57.4	0.0	8	-8.0					
177	53	56.6	-0.0	8	-8.0					
178	54	58.7	-0.0	8	-8.0					
179	55	62.6	0.0	8	-8.0					
180	56	70.4	0.0	8	-8.0					
181	57	64.1	0.0	8	-8.0					

**RESULTS: BARRIER DESIGN****Constitution Avenue**

182	58	61.7	0.0	8	-8.0					
183	59	61.1	-0.0	8	-8.0					
184	60	60.3	0.0	8	-8.0					
185	61	59.9	0.0	8	-8.0					
186	62	53.1	-0.0	8	-8.0					
187	63	49.9	0.0	8	-8.0					
188	64	42.9	-0.0	8	-8.0					
189	65	41.8	0.0	8	-8.0					
190	66	41.6	-0.0	8	-8.0					
191	67	41.4	-0.0	8	-8.0					
192	68	41.0	-0.0	8	-8.0					
193	69	41.3	0.0	8	-8.0					
194	70	40.9	-0.0	8	-8.0					
195	71	41.9	0.0	8	-8.0					
196	72	43.5	-0.0	8	-8.0					
197	73	54.9	0.0	8	-8.0					
198	74	59.0	-0.0	8	-8.0					
199	75	59.3	-0.0	8	-8.0					
200	76	60.4	-0.0	8	-8.0					
201	77	63.9	0.0	8	-8.0					
202	78	70.1	-0.0	8	-8.0					
203	79	70.1	-0.0	8	-8.0					
204	80	70.1	0.0	8	-8.0					
205	81	70.1	0.0	8	-8.0					
206	82	70.2	-0.0	8	-8.0					
207	83	70.2	-0.0	8	-8.0					
208	84	70.1	0.0	8	-8.0					
209	85	62.2	-0.0	8	-8.0					
210	86	58.5	0.0	8	-8.0					
211	87	56.6	0.0	8	-8.0					
212	88	58.5	0.0	8	-8.0					
213	89	60.1	-0.0	8	-8.0					
214	90	57.6	-0.0	8	-8.0					
215	91	55.8	-0.0	8	-8.0					
216	92	54.5	-0.0	8	-8.0					
217	93	53.9	-0.0	8	-8.0					

**RESULTS: BARRIER DESIGN**

**Constitution Avenue**

218	94	47.4	-0.0	8	-8.0				
219	95	45.7	0.0	8	-8.0				
220	96	45.8	0.0	8	-8.0				
221	97	45.9	0.0	8	-8.0				
222	98	64.2	-0.0	8	-8.0				
223	99	70.1	-0.0	8	-8.0				
224	100	70.2	-0.0	8	-8.0				
225	101	70.4	0.0	8	-8.0				
226	102	70.7	0.0	8	-8.0				
227	103	70.6	0.0	8	-8.0				
228	104	72.0	-0.0	8	-8.0				
229	105	70.8	-0.0	8	-8.0				
230	106	70.5	-0.0	8	-8.0				
231	107	70.4	-0.0	8	-8.0				
232	108	70.2	0.0	8	-8.0				
233	109	70.2	-0.0	8	-8.0				
234	111	69.6	0.0	8	-8.0				
235	112	64.3	-0.0	8	-8.0				
236	113	61.6	0.0	8	-8.0				
237	114	61.0	-0.0	8	-8.0				
238	115	60.2	0.0	8	-8.0				
239	116	60.0	-0.0	8	-8.0				
240	117	53.4	-0.0	8	-8.0				
241	118	50.6	0.0	8	-8.0				
242	119	44.9	-0.0	8	-8.0				
243	120	45.1	-0.0	8	-8.0				
244	121	45.2	0.0	8	-8.0				
245	122	45.4	-0.0	8	-8.0				
246	123	45.0	-0.0	8	-8.0				
247	124	44.4	-0.0	8	-8.0				
248	125	44.2	0.0	8	-8.0				
249	126	44.9	0.0	8	-8.0				
250	127	55.2	-0.0	8	-8.0				
251	128	59.1	-0.0	8	-8.0				
252	129	59.3	-0.0	8	-8.0				
253	130	60.4	-0.0	8	-8.0				

**RESULTS: BARRIER DESIGN**

**Constitution Avenue**

254	131	64.0	0.0	8	-8.0					
255	132	69.8	0.0	8	-8.0					
256	133	69.8	0.0	8	-8.0					
257	134	69.8	-0.0	8	-8.0					
258	135	69.8	0.0	8	-8.0					
259	136	69.9	-0.0	8	-8.0					
260	137	69.8	0.0	8	-8.0					
261	138	62.3	0.0	8	-8.0					
262	139	58.5	0.0	8	-8.0					
263	140	56.6	0.0	8	-8.0					
264	141	58.6	0.0	8	-8.0					
265	142	60.0	0.0	8	-8.0					
266	143	54.3	-0.0	8	-8.0					
267	144	47.1	-0.0	8	-8.0					
268	145	64.3	-0.0	8	-8.0					
269	146	69.9	-0.0	8	-8.0					
270	147	70.0	-0.0	8	-8.0					
271	148	70.2	0.0	8	-8.0					
272	149	70.5	0.0	8	-8.0					
273	150	70.5	0.0	8	-8.0					
274	151	71.8	-0.0	8	-8.0					
275	152	70.6	0.0	8	-8.0					
276	153	70.2	0.0	8	-8.0					
277	154	70.1	0.0	8	-8.0					
278	155	69.9	0.0	8	-8.0					
279	156	69.9	0.0	8	-8.0					
280	157	69.5	-0.0	8	-8.0					
Total Cost, All Barriers (including additional cost(s))					\$0					