



LSC TRANSPORTATION CONSULTANTS, INC.  
545 East Pikes Peak Avenue, Suite 210  
Colorado Springs, CO 80903  
(719) 633-2868  
FAX (719) 633-5430  
E-mail: [lsc@lsctrans.com](mailto:lsc@lsctrans.com)  
Website: <http://www.lsctrans.com>

February 8, 2019

Todd Stephens  
Windsor Ridge Homes  
4164 Austin Bluffs Parkway, Suite 361  
Colorado Springs, CO 80918

RE: Windermere Noise Impact Study  
El Paso County, Colorado  
LSC #184641

Dear Mr. Stephens:

In response to your request, LSC Transportation Consultants, Inc. has completed a detailed analysis of the noise impacts of Marksheffel Road and North Carefree Circle on the proposed Windermere residential development. The site is located northwest intersection of Marksheffel Road and North Carefree Circle in El Paso County, Colorado. LSC has completed an evaluation of the noise exposure for submittal to El Paso County in accordance with the Federal Highway Administration (FHWA) requirements.

LSC used the software program Traffic Noise Model Version 2.5—developed by FHWA—to predict the noise levels at 12 locations on the south side of the development closest to North Carefree Circle and 24 locations on the east side of the development closest to Marksheffel Road. The locations are shown in Figure 1. The receivers were placed in the middle of each lot at a location 30 feet from the property line. An elevation of five feet was assumed for the receivers.

The input data for the noise predictions included traffic volumes, roadway geometry, topographic elevations, and the locations of the receivers. The analysis was completed using projected 2040 afternoon peak-hour traffic volumes. These volumes are estimates by LSC based on the 2040 afternoon peak-hour traffic volumes from the *Windermere Traffic Impact Analysis* by LSC dated February 4, 2019. The model assumes Marksheffel Road has been widened to provide two northbound and southbound through lanes by 2040 and that the intersections of North Carefree/Antelope Ridge and North Carefree/Marksheffel have both been signalized.

The results of the noise prediction show that in the year 2040, receiver locations 23 and 24 have predicted noise levels that would exceed 67 decibels Leq. If an eight-foot-high noise barrier were constructed at the locations shown on Figure 1, all noise receiver locations are predicted to be below the threshold. This barrier should be made of a rigid material with a density of at least four

pounds per square foot and should have no gaps. The noise analysis inputs and outputs are attached.

\* \* \* \* \*

Please contact me if you have any questions or need further assistance.

Respectfully submitted,

LSC TRANSPORTATION CONSULTANTS, INC.



By: Kirstin D. Ferrin, P.E.  
Senior Transportation Engineer

KDF:bjwb

Enclosures: Figure 1  
Noise Analysis Inputs/Outputs

Antelope Ridge Drive

Pronghorn Meadows Circle South

N. Carefree Circle

Markshffel Road

Approximate Scale  
Scale: 1" = 300'

LEGEND:

○ = Receiver Location

— = 8' Noise Barrier

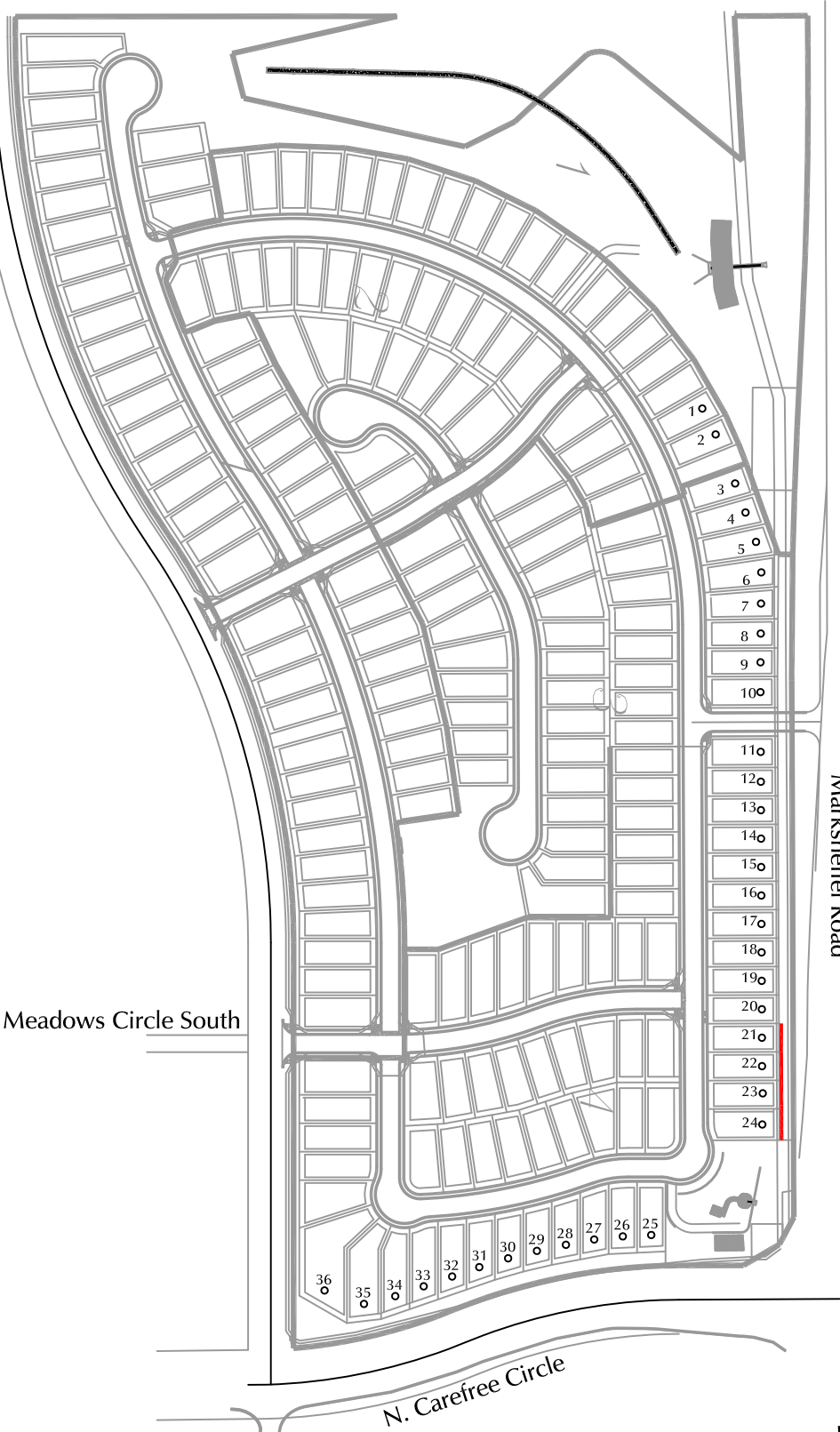


Figure 1

# Noise Analysis Data

Windmere Noise Analysis (LSC #184641)



RESULTS: SOUND LEVELS

Windermere

LSC										1 February 2019			
KDF										TNM 2.5			
										Calculated with TNM 2.5			
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:					Windermere								
RUN:					2040 PM Peak Hour								
BARRIER DESIGN:					INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.		
ATMOSPHERICS:					68 deg F, 50% RH								

Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		With Barrier				
				Calculated	Crit'n	Calculated	Crit'n	Calculated	Noise Reduction	Goal	Calculated	
							Sub'l Inc	Type Impact				minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
1	1	1	0.0	62.1	67	62.1	10	----	62.1	0.0	8	-8.0
2	2	1	0.0	63.3	67	63.3	10	----	63.3	0.0	8	-8.0
3	3	1	0.0	64.5	67	64.5	10	----	64.5	0.0	8	-8.0
4	5	1	0.0	65.1	67	65.1	10	----	65.1	0.0	8	-8.0
5	6	1	0.0	65.8	67	65.8	10	----	65.8	0.0	8	-8.0
6	7	1	0.0	66.3	67	66.3	10	----	66.3	0.0	8	-8.0
7	8	1	0.0	66.1	67	66.1	10	----	66.1	0.0	8	-8.0
8	9	1	0.0	66.0	67	66.0	10	----	66.0	0.0	8	-8.0
9	10	1	0.0	66.0	67	66.0	10	----	66.0	0.0	8	-8.0
10	11	1	0.0	66.3	67	66.3	10	----	66.3	0.0	8	-8.0
11	12	1	0.0	66.5	67	66.5	10	----	66.5	0.0	8	-8.0
12	13	1	0.0	66.5	67	66.5	10	----	66.5	0.0	8	-8.0
13	14	1	0.0	66.5	67	66.5	10	----	66.5	0.0	8	-8.0
14	15	1	0.0	66.3	67	66.3	10	----	66.3	0.0	8	-8.0
15	16	1	0.0	66.3	67	66.3	10	----	66.3	0.0	8	-8.0
16	17	1	0.0	66.1	67	66.1	10	----	66.1	0.0	8	-8.0
17	18	1	0.0	66.1	67	66.1	10	----	66.1	0.0	8	-8.0
18	19	1	0.0	66.2	67	66.2	10	----	66.2	0.0	8	-8.0
19	20	1	0.0	66.3	67	66.3	10	----	66.3	0.0	8	-8.0
20	21	1	0.0	66.4	67	66.4	10	----	66.4	0.0	8	-8.0
21	22	1	0.0	66.6	67	66.6	10	----	66.5	0.1	8	-7.9
22	23	1	0.0	66.8	67	66.8	10	----	65.9	0.9	8	-7.1
23	24	1	0.0	67.3	67	67.3	10	Snd Lvl	64.7	2.6	8	-5.4
24	25	1	0.0	67.6	67	67.6	10	Snd Lvl	66.9	0.7	8	-7.3

**RESULTS: SOUND LEVELS**

**Windermere**

25	26	1	0.0	65.5	67	65.5	10	----	65.5	0.0	8	-8.0
26	27	1	0.0	65.2	67	65.2	10	----	65.2	0.0	8	-8.0
27	28	1	0.0	64.9	67	64.9	10	----	64.9	0.0	8	-8.0
28	29	1	0.0	64.7	67	64.7	10	----	64.7	0.0	8	-8.0
29	30	1	0.0	64.3	67	64.3	10	----	64.3	0.0	8	-8.0
30	31	1	0.0	64.1	67	64.1	10	----	64.1	0.0	8	-8.0
31	32	1	0.0	63.8	67	63.8	10	----	63.8	0.0	8	-8.0
32	33	1	0.0	63.8	67	63.8	10	----	63.8	0.0	8	-8.0
33	34	1	0.0	63.8	67	63.8	10	----	63.8	0.0	8	-8.0
34	35	1	0.0	64.0	67	64.0	10	----	64.0	0.0	8	-8.0
35	36	1	0.0	64.3	67	64.3	10	----	64.3	0.0	8	-8.0
36	37	1	0.0	62.4	67	62.4	10	----	62.4	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		36	0.0	0.1	2.6							
All Impacted		2	0.7	1.7	2.6							
All that meet NR Goal		0	0.0	0.0	0.0							

INPUT: TRAFFIC FOR LAeq1h Volumes

Windermere

LSC		1 February 2019											
KDF		TNM 2.5											
INPUT: TRAFFIC FOR LAeq1h Volumes													
PROJECT/CONTRACT:		Windermere											
RUN:		2040 PM Peak Hour											
Roadway	Points												
Name	Name	No.	Segment		MTrucks		HTrucks		Buses		Motorcycles		
			Autos		V	S	V	S	V	S	V	S	
			V	S	V	S	V	S	V	S			
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	
N Carefree W/O A.R. WB Accel	point1	1	77	35	2	35	1	35	0	0	0	0	
	point2	2											
N Carefree W/O A.R. WB #3	point3	3	416	35	9	35	4	35	0	0	0	0	
	point4	4											
N Carefree W/O A.R. WB #2	point5	5	416	35	9	35	4	35	0	0	0	0	
	point6	6											
N Carefree W/O A.R. WB #1	point7	7	416	35	9	35	4	35	0	0	0	0	
	point8	8											
N Carefree W/O A.R. EB LT	point11	11	162	35	3	35	2	35	0	0	0	0	
	point12	12											
N Carefree W/O A.R. EB #1	point13	13	496	35	10	35	5	35	0	0	0	0	
	point14	14											
N Carefree W/O A.R. EB #2	point15	15	496	35	10	35	5	35	0	0	0	0	
	point16	16											
N Carefree W/O A.R. EB #3	point17	17	496	35	10	35	5	35	0	0	0	0	
	point18	18											
N Carefree E/O A.R. WB Decel	point19	19	210	35	4	35	2	35	0	0	0	0	
	point20	20	210	35	4	35	2	35	0	0	0	0	
	point21	21	210	35	4	35	2	35	0	0	0	0	
	point22	22											
N Carefree E/O A.R. WB #3	point23	23	416	35	9	35	4	35	0	0	0	0	
	point24	24	416	35	9	35	4	35	0	0	0	0	
	point25	25	416	35	9	35	4	35	0	0	0	0	

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Windermere**

	point26	26	416	35	9	35	4	35	0	0	0	0
	point27	27	416	35	9	35	4	35	0	0	0	0
	point28	28	416	35	9	35	4	35	0	0	0	0
	point29	29	416	35	9	35	4	35	0	0	0	0
	point30	30	416	35	9	35	4	35	0	0	0	0
	point31	31	416	35	9	35	4	35	0	0	0	0
	point32	32	416	35	9	35	4	35	0	0	0	0
	point33	33	416	35	9	35	4	35	0	0	0	0
	point34	34	416	35	9	35	4	35	0	0	0	0
	point35	35	416	35	9	35	4	35	0	0	0	0
	point36	36	416	35	9	35	4	35	0	0	0	0
	point37	37	416	35	9	35	4	35	0	0	0	0
	point38	38	416	35	9	35	4	35	0	0	0	0
	point39	39	416	35	9	35	4	35	0	0	0	0
	point40	40										
N Carefree E/O A.R. WB #2	point41	41	416	35	9	35	4	35	0	0	0	0
	point42	42	416	35	9	35	4	35	0	0	0	0
	point43	43	416	35	9	35	4	35	0	0	0	0
	point44	44	416	35	9	35	4	35	0	0	0	0
	point45	45	416	35	9	35	4	35	0	0	0	0
	point46	46	416	35	9	35	4	35	0	0	0	0
	point47	47	416	35	9	35	4	35	0	0	0	0
	point48	48	416	35	9	35	4	35	0	0	0	0
	point49	49	416	35	9	35	4	35	0	0	0	0
	point50	50	416	35	9	35	4	35	0	0	0	0
	point51	51	416	35	9	35	4	35	0	0	0	0
	point52	52	416	35	9	35	4	35	0	0	0	0
	point53	53	416	35	9	35	4	35	0	0	0	0
	point54	54	416	35	9	35	4	35	0	0	0	0
	point55	55	416	35	9	35	4	35	0	0	0	0
	point56	56	416	35	9	35	4	35	0	0	0	0
	point57	57	416	35	9	35	4	35	0	0	0	0
	point58	58										
N Carefree E/O A.R. WB #1	point59	59	416	35	9	35	4	35	0	0	0	0
	point60	60	416	35	9	35	4	35	0	0	0	0
	point61	61	416	35	9	35	4	35	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Windermere**

	point62	62	416	35	9	35	4	35	0	0	0	0
	point63	63	416	35	9	35	4	35	0	0	0	0
	point64	64	416	35	9	35	4	35	0	0	0	0
	point65	65	416	35	9	35	4	35	0	0	0	0
	point66	66	416	35	9	35	4	35	0	0	0	0
	point67	67	416	35	9	35	4	35	0	0	0	0
	point68	68	416	35	9	35	4	35	0	0	0	0
	point69	69	416	35	9	35	4	35	0	0	0	0
	point70	70	416	35	9	35	4	35	0	0	0	0
	point71	71	416	35	9	35	4	35	0	0	0	0
	point72	72	416	35	9	35	4	35	0	0	0	0
	point73	73	416	35	9	35	4	35	0	0	0	0
	point74	74	416	35	9	35	4	35	0	0	0	0
	point75	75	416	35	9	35	4	35	0	0	0	0
	point76	76										
N Carefree E/O A.R. EB LT	point77	77	291	35	6	35	3	35	0	0	0	0
	point78	78	291	35	6	35	3	35	0	0	0	0
	point79	79	291	35	6	35	3	35	0	0	0	0
	point80	80	291	35	6	35	3	35	0	0	0	0
	point81	81										
N Carefree E/O A.R. EB#1	point82	82	328	35	7	35	3	35	0	0	0	0
	point136	136	328	35	7	35	3	35	0	0	0	0
	point83	83	328	35	7	35	3	35	0	0	0	0
	point84	84	328	35	7	35	3	35	0	0	0	0
	point85	85	328	35	7	35	3	35	0	0	0	0
	point86	86	328	35	7	35	3	35	0	0	0	0
	point87	87	328	35	7	35	3	35	0	0	0	0
	point88	88	328	35	7	35	3	35	0	0	0	0
	point89	89	328	35	7	35	3	35	0	0	0	0
	point90	90	328	35	7	35	3	35	0	0	0	0
	point91	91	328	35	7	35	3	35	0	0	0	0
	point92	92	328	35	7	35	3	35	0	0	0	0
	point93	93	328	35	7	35	3	35	0	0	0	0
	point94	94	328	35	7	35	3	35	0	0	0	0
	point95	95	328	35	7	35	3	35	0	0	0	0
	point96	96	328	35	7	35	3	35	0	0	0	0



**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Windermere**

	point97	97										
N Carefree E/O A.R. EB#2	point98	98	328	35	7	35	3	35	0	0	0	0
	point137	137	328	35	7	35	3	35	0	0	0	0
	point99	99	328	35	7	35	3	35	0	0	0	0
	point100	100	328	35	7	35	3	35	0	0	0	0
	point101	101	328	35	7	35	3	35	0	0	0	0
	point102	102	328	35	7	35	3	35	0	0	0	0
	point103	103	328	35	7	35	3	35	0	0	0	0
	point104	104	328	35	7	35	3	35	0	0	0	0
	point105	105	328	35	7	35	3	35	0	0	0	0
	point106	106	328	35	7	35	3	35	0	0	0	0
	point107	107	328	35	7	35	3	35	0	0	0	0
	point108	108	328	35	7	35	3	35	0	0	0	0
	point109	109	328	35	7	35	3	35	0	0	0	0
	point110	110	328	35	7	35	3	35	0	0	0	0
	point111	111	328	35	7	35	3	35	0	0	0	0
	point112	112	328	35	7	35	3	35	0	0	0	0
	point113	113										
N Carefree E/O A.R. EB#3	point114	114	328	35	7	35	3	35	0	0	0	0
	point115	115	328	35	7	35	3	35	0	0	0	0
	point116	116	328	35	7	35	3	35	0	0	0	0
	point117	117	328	35	7	35	3	35	0	0	0	0
	point118	118	328	35	7	35	3	35	0	0	0	0
	point119	119	328	35	7	35	3	35	0	0	0	0
	point120	120	328	35	7	35	3	35	0	0	0	0
	point121	121	328	35	7	35	3	35	0	0	0	0
	point122	122	328	35	7	35	3	35	0	0	0	0
	point123	123	328	35	7	35	3	35	0	0	0	0
	point124	124	328	35	7	35	3	35	0	0	0	0
	point125	125	328	35	7	35	3	35	0	0	0	0
	point126	126	328	35	7	35	3	35	0	0	0	0
	point127	127	328	35	7	35	3	35	0	0	0	0
	point128	128	328	35	7	35	3	35	0	0	0	0
	point129	129	328	35	7	35	3	35	0	0	0	0
	point130	130										
N Carefree E/O A.R. EB RT	point131	131	291	35	6	35	3	35	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Windermere**

	point132	132	291	35	6	35	3	35	0	0	0	0
	point133	133	291	35	6	35	3	35	0	0	0	0
	point134	134	291	35	6	35	3	35	0	0	0	0
	point135	135										
Marksheffel N/O N.C. SB Decel	point138	138	155	35	3	35	2	35	0	0	0	0
	point139	139	155	35	3	35	2	35	0	0	0	0
	point140	140	155	35	3	35	2	35	0	0	0	0
	point141	141	155	35	3	35	2	35	0	0	0	0
	point142	142										
Marksheffel N/O N.C. SB #2	point143	143	699	50	14	50	7	50	0	0	0	0
	point144	144	699	50	14	50	7	50	0	0	0	0
	point145	145	699	50	14	50	7	50	0	0	0	0
	point146	146	699	50	14	50	7	50	0	0	0	0
	point147	147	699	50	14	50	7	50	0	0	0	0
	point148	148	699	50	14	50	7	50	0	0	0	0
	point149	149	699	50	14	50	7	50	0	0	0	0
	point150	150	699	50	14	50	7	50	0	0	0	0
	point151	151	699	50	14	50	7	50	0	0	0	0
	point152	152	699	50	14	50	7	50	0	0	0	0
	point153	153	699	50	14	50	7	50	0	0	0	0
	point154	154	699	50	14	50	7	50	0	0	0	0
	point155	155	699	50	14	50	7	50	0	0	0	0
	point156	156	699	50	14	50	7	50	0	0	0	0
	point157	157	699	50	14	50	7	50	0	0	0	0
	point158	158	699	50	14	50	7	50	0	0	0	0
	point159	159	699	50	14	50	7	50	0	0	0	0
	point160	160	699	50	14	50	7	50	0	0	0	0
	point161	161	699	50	14	50	7	50	0	0	0	0
	point162	162	699	50	14	50	7	50	0	0	0	0
	point163	163	699	50	14	50	7	50	0	0	0	0
	point164	164	699	50	14	50	7	50	0	0	0	0
	point165	165	699	50	14	50	7	50	0	0	0	0
	point166	166	699	50	14	50	7	50	0	0	0	0
	point167	167	699	50	14	50	7	50	0	0	0	0
	point168	168	699	50	14	50	7	50	0	0	0	0
	point169	169	699	50	14	50	7	50	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Windermere**

	point170	170	699	50	14	50	7	50	0	0	0	0
	point171	171	699	50	14	50	7	50	0	0	0	0
	point172	172	699	50	14	50	7	50	0	0	0	0
	point173	173	699	50	14	50	7	50	0	0	0	0
	point174	174	699	50	14	50	7	50	0	0	0	0
	point175	175										
Marksheffel N/O N.C. SB #1	point176	176	699	50	14	50	7	50	0	0	0	0
	point177	177	699	50	14	50	7	50	0	0	0	0
	point178	178	699	50	14	50	7	50	0	0	0	0
	point179	179	699	50	14	50	7	50	0	0	0	0
	point180	180	699	50	14	50	7	50	0	0	0	0
	point181	181	699	50	14	50	7	50	0	0	0	0
	point182	182	699	50	14	50	7	50	0	0	0	0
	point183	183	699	50	14	50	7	50	0	0	0	0
	point184	184	699	50	14	50	7	50	0	0	0	0
	point185	185	699	50	14	50	7	50	0	0	0	0
	point186	186	699	50	14	50	7	50	0	0	0	0
	point187	187	699	50	14	50	7	50	0	0	0	0
	point188	188	699	50	14	50	7	50	0	0	0	0
	point189	189	699	50	14	50	7	50	0	0	0	0
	point190	190	699	50	14	50	7	50	0	0	0	0
	point191	191	699	50	14	50	7	50	0	0	0	0
	point192	192	699	50	14	50	7	50	0	0	0	0
	point193	193	699	50	14	50	7	50	0	0	0	0
	point194	194	699	50	14	50	7	50	0	0	0	0
	point195	195	699	50	14	50	7	50	0	0	0	0
	point196	196	699	50	14	50	7	50	0	0	0	0
	point197	197	699	50	14	50	7	50	0	0	0	0
	point198	198	699	50	14	50	7	50	0	0	0	0
	point199	199	699	50	14	50	7	50	0	0	0	0
	point200	200	699	50	14	50	7	50	0	0	0	0
	point201	201	699	50	14	50	7	50	0	0	0	0
	point202	202	699	50	14	50	7	50	0	0	0	0
	point203	203	699	50	14	50	7	50	0	0	0	0
	point204	204	699	50	14	50	7	50	0	0	0	0
	point205	205	699	50	14	50	7	50	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Windermere**

	point206	206	699	50	14	50	7	50	0	0	0	0
	point207	207										
Marksheffel N/O N.C. NB #1	point248	248	1144	50	24	50	12	50	0	0	0	0
	point249	249	1144	50	24	50	12	50	0	0	0	0
	point250	250	1144	50	24	50	12	50	0	0	0	0
	point251	251	1144	50	24	50	12	50	0	0	0	0
	point252	252	1144	50	24	50	12	50	0	0	0	0
	point253	253	1144	50	24	50	12	50	0	0	0	0
	point254	254	1144	50	24	50	12	50	0	0	0	0
	point255	255	1144	50	24	50	12	50	0	0	0	0
	point256	256	1144	50	24	50	12	50	0	0	0	0
	point257	257	1144	50	24	50	12	50	0	0	0	0
	point258	258	1144	50	24	50	12	50	0	0	0	0
	point259	259	1144	50	24	50	12	50	0	0	0	0
	point260	260	1144	50	24	50	12	50	0	0	0	0
	point261	261	1144	50	24	50	12	50	0	0	0	0
	point262	262	1144	50	24	50	12	50	0	0	0	0
	point263	263	1144	50	24	50	12	50	0	0	0	0
	point264	264	1144	50	24	50	12	50	0	0	0	0
	point265	265	1144	50	24	50	12	50	0	0	0	0
	point266	266	1144	50	24	50	12	50	0	0	0	0
	point267	267	1144	50	24	50	12	50	0	0	0	0
	point268	268	1144	50	24	50	12	50	0	0	0	0
	point269	269	1144	50	24	50	12	50	0	0	0	0
	point270	270	1144	50	24	50	12	50	0	0	0	0
	point271	271	1144	50	24	50	12	50	0	0	0	0
	point272	272	1144	50	24	50	12	50	0	0	0	0
	point273	273	1144	50	24	50	12	50	0	0	0	0
	point274	274	1144	50	24	50	12	50	0	0	0	0
	point275	275	1144	50	24	50	12	50	0	0	0	0
	point276	276	1144	50	24	50	12	50	0	0	0	0
	point277	277	1144	50	24	50	12	50	0	0	0	0
	point278	278	1144	50	24	50	12	50	0	0	0	0
	point279	279	1144	50	24	50	12	50	0	0	0	0
	point280	280	1144	50	24	50	12	50	0	0	0	0
	point281	281	1144	50	24	50	12	50	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Windermere**

	point282	282	1144	50	24	50	12	50	0	0	0	0
	point283	283	1144	50	24	50	12	50	0	0	0	0
	point284	284	1144	50	24	50	12	50	0	0	0	0
	point285	285	1144	50	24	50	12	50	0	0	0	0
	point286	286										
Marksheffel N/O N.C. NB #2	point287	287	1144	50	24	50	12	50	0	0	0	0
	point288	288	1144	50	24	50	12	50	0	0	0	0
	point289	289	1144	50	24	50	12	50	0	0	0	0
	point290	290	1144	50	24	50	12	50	0	0	0	0
	point291	291	1144	50	24	50	12	50	0	0	0	0
	point292	292	1144	50	24	50	12	50	0	0	0	0
	point293	293	1144	50	24	50	12	50	0	0	0	0
	point294	294	1144	50	24	50	12	50	0	0	0	0
	point295	295	1144	50	24	50	12	50	0	0	0	0
	point296	296	1144	50	24	50	12	50	0	0	0	0
	point297	297	1144	50	24	50	12	50	0	0	0	0
	point298	298	1144	50	24	50	12	50	0	0	0	0
	point299	299	1144	50	24	50	12	50	0	0	0	0
	point300	300	1144	50	24	50	12	50	0	0	0	0
	point301	301	1144	50	24	50	12	50	0	0	0	0
	point302	302	1144	50	24	50	12	50	0	0	0	0
	point303	303	1144	50	24	50	12	50	0	0	0	0
	point304	304	1144	50	24	50	12	50	0	0	0	0
	point305	305	1144	50	24	50	12	50	0	0	0	0
	point306	306	1144	50	24	50	12	50	0	0	0	0
	point307	307	1144	50	24	50	12	50	0	0	0	0
	point308	308	1144	50	24	50	12	50	0	0	0	0
	point309	309	1144	50	24	50	12	50	0	0	0	0
	point310	310	1144	50	24	50	12	50	0	0	0	0
	point311	311	1144	50	24	50	12	50	0	0	0	0
	point312	312	1144	50	24	50	12	50	0	0	0	0
	point313	313	1144	50	24	50	12	50	0	0	0	0
	point314	314	1144	50	24	50	12	50	0	0	0	0
	point315	315	1144	50	24	50	12	50	0	0	0	0
	point316	316	1144	50	24	50	12	50	0	0	0	0
	point317	317	1144	50	24	50	12	50	0	0	0	0

**INPUT: TRAFFIC FOR LAeq1h Volumes**

**Windermere**

	point318	318	1144	50	24	50	12	50	0	0	0	0
	point319	319	1144	50	24	50	12	50	0	0	0	0
	point320	320	1144	50	24	50	12	50	0	0	0	0
	point321	321	1144	50	24	50	12	50	0	0	0	0
	point322	322	1144	50	24	50	12	50	0	0	0	0
	point323	323	0 4	50	24	50	12	50	0	0	0	0
	point324	324										
Marksheffel S/O N.C. SB Accel	point325	325	291	35	6	35	3	35	0	0	0	0
	point326	326										
Marksheffel S/O N.C. SB #2	point327	327	699	50	14	50	7	50	0	0	0	0
	point328	328	699	50	14	50	7	50	0	0	0	0
	point329	329										
Marksheffel S/O N.C. SB #1	point330	330	699	50	14	50	7	50	0	0	0	0
	point331	331	699	50	14	50	7	50	0	0	0	0
	point332	332										
Marksheffel S/O N.C. NB LT	point333	333	834	35	17	35	9	35	0	0	0	0
	point334	334	834	35	17	35	9	35	0	0	0	0
	point335	335										
Marksheffel S/O N.C. NB #1	point336	336	999	50	21	50	10	50	0	0	0	0
	point337	337	999	50	21	50	10	50	0	0	0	0
	point338	338										
Marksheffel S/O N.C. NB #2	point339	339	999	50	21	50	10	50	0	0	0	0
	point340	340	999	50	21	50	10	50	0	0	0	0
	point341	341										

**INPUT: ROADWAYS**

Windermere

LSC												
KDF												

1 February 2019  
TNM 2.5**INPUT: ROADWAYS**
**PROJECT/CONTRACT:** Windermere  
**RUN:** 2040 PM Peak Hour

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

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control	Speed	Percent	Pvmt	On
							Device	Constraint	Vehicles	Type	Struct?
	ft			ft	ft	ft		mph	Affected		
									%		
N Carefree W/O A.R. WB Accel	12.0	point1	1	291,134.9	523,081.3	6,598.00	Signal	0.00	50	Average	
		point2	2	291,048.9	523,079.4	6,600.00					
N Carefree W/O A.R. WB #3	12.0	point3	3	291,143.4	523,069.9	6,598.00	Signal	0.00	50	Average	
		point4	4	291,065.9	523,068.0	6,600.00					
N Carefree W/O A.R. WB #2	12.0	point5	5	291,151.0	523,056.7	6,598.00	Signal	0.00	50	Average	
		point6	6	291,075.3	523,056.7	6,600.00					
N Carefree W/O A.R. WB #1	12.0	point7	7	291,156.7	523,044.4	6,598.00	Signal	0.00	50	Average	
		point8	8	291,084.8	523,044.4	6,600.00					
N Carefree W/O A.R. EB LT	12.0	point11	11	291,091.4	523,026.4	6,598.00				Average	
		point12	12	291,154.8	523,026.4	6,600.00					
N Carefree W/O A.R. EB #1	12.0	point13	13	291,082.9	523,013.2	6,600.00				Average	
		point14	14	291,147.2	523,014.1	6,598.00					
N Carefree W/O A.R. EB #2	12.0	point15	15	291,073.5	522,999.0	6,600.00				Average	
		point16	16	291,137.8	523,000.9	6,598.00					
N Carefree W/O A.R. EB #3	12.0	point17	17	291,070.6	522,990.5	6,600.00				Average	
		point18	18	291,122.7	522,989.5	6,598.00					
N Carefree E/O A.R. WB Decel	12.0	point19	19	291,366.7	523,113.4	6,590.50				Average	
		point20	20	291,299.5	523,098.3	6,592.00				Average	
		point21	21	291,242.8	523,087.9	6,594.00				Average	
		point22	22	291,192.6	523,083.2	6,596.00					
N Carefree E/O A.R. WB #3	12.0	point23	23	292,113.2	523,222.0	6,570.50	Signal	0.00	50	Average	
		point24	24	292,058.2	523,220.8	6,568.00				Average	
		point25	25	291,912.6	523,220.2	6,568.00				Average	
		point26	26	291,858.2	523,220.2	6,570.00				Average	
		point27	27	291,813.8	523,217.1	6,572.00				Average	

**INPUT: ROADWAYS**

**Windermere**

		point28	28	291,775.5	523,214.6	6,574.00				Average
		point29	29	291,736.6	523,210.3	6,576.00				Average
		point30	30	291,697.1	523,202.2	6,578.00				Average
		point31	31	291,658.2	523,194.2	6,580.00				Average
		point32	32	291,621.2	523,185.0	6,582.00				Average
		point33	33	291,576.8	523,172.0	6,584.00				Average
		point34	34	291,525.5	523,154.1	6,586.00				Average
		point35	35	291,462.5	523,131.9	6,588.00				Average
		point36	36	291,399.6	523,109.0	6,590.00				Average
		point37	37	291,310.7	523,088.7	6,592.00				Average
		point38	38	291,248.9	523,077.6	6,594.00				Average
		point39	39	291,198.3	523,074.5	6,596.00				Average
		point40	40	291,145.2	523,072.0	6,598.00				
N Carefree E/O A.R. WB #2	12.0	point41	41	292,112.0	523,209.7	6,570.50	Signal	0.00	50	Average
		point42	42	292,064.4	523,209.7	6,568.00				Average
		point43	43	291,918.1	523,208.4	6,568.00				Average
		point44	44	291,863.8	523,208.4	6,570.00				Average
		point45	45	291,820.0	523,206.6	6,572.00				Average
		point46	46	291,781.1	523,203.5	6,574.00				Average
		point47	47	291,743.4	523,197.9	6,576.00				Average
		point48	48	291,704.5	523,192.4	6,578.00				Average
		point49	49	291,668.7	523,183.7	6,580.00				Average
		point50	50	291,629.8	523,175.1	6,582.00				Average
		point51	51	291,585.4	523,160.9	6,584.00				Average
		point52	52	291,535.4	523,145.5	6,586.00				Average
		point53	53	291,474.9	523,121.4	6,588.00				Average
		point54	54	291,410.1	523,099.2	6,590.00				Average
		point55	55	291,320.5	523,078.2	6,592.00				Average
		point56	56	291,256.3	523,067.7	6,594.00				Average
		point57	57	291,205.7	523,061.5	6,596.00				Average
		point58	58	291,152.6	523,059.7	6,598.00				
N Carefree E/O A.R. WB #1	12.0	point59	59	292,112.6	523,196.7	6,570.50	Signal	0.00	50	Average
		point60	60	292,076.2	523,197.3	6,568.00				Average
		point61	61	291,924.9	523,196.1	6,568.00				Average
		point62	62	291,868.8	523,196.1	6,570.00				Average
		point63	63	291,823.7	523,194.8	6,572.00				Average
		point64	64	291,789.7	523,191.8	6,574.00				Average
		point65	65	291,752.1	523,186.8	6,576.00				Average
		point66	66	291,712.6	523,181.2	6,578.00				Average



**INPUT: ROADWAYS**

**Windermere**

		point67	67	291,675.5	523,173.2	6,580.00				Average
		point68	68	291,637.2	523,164.6	6,582.00				Average
		point69	69	291,592.2	523,151.6	6,584.00				Average
		point70	70	291,544.6	523,135.6	6,586.00				Average
		point71	71	291,487.2	523,114.6	6,588.00				Average
		point72	72	291,419.3	523,089.3	6,590.00				Average
		point73	73	291,329.8	523,066.4	6,592.00				Average
		point74	74	291,263.1	523,055.3	6,594.00				Average
		point75	75	291,212.5	523,050.4	6,596.00				Average
		point76	76	291,156.9	523,046.7	6,598.00				
N Carefree E/O A.R. EB LT	12.0	point77	77	291,793.4	523,174.5	6,574.00				Average
		point78	78	291,829.8	523,177.6	6,572.00				Average
		point79	79	291,871.2	523,179.4	6,570.00				Average
		point80	80	291,932.3	523,178.2	6,568.00				Average
		point81	81	292,104.6	523,180.0	6,568.00				
N Carefree E/O A.R. EB#1	12.0	point82	82	291,150.8	523,014.6	6,598.00	Signal	0.00	50	Average
		point136	136	291,212.8	523,018.6	6,596.00				Average
		point83	83	291,265.6	523,023.8	6,594.00				Average
		point84	84	291,334.8	523,036.8	6,592.00				Average
		point85	85	291,429.8	523,059.7	6,590.00				Average
		point86	86	291,503.3	523,086.8	6,588.00				Average
		point87	87	291,558.8	523,107.2	6,586.00				Average
		point88	88	291,603.3	523,121.4	6,584.00				Average
		point89	89	291,645.3	523,135.0	6,582.00				Average
		point90	90	291,683.5	523,143.6	6,580.00				Average
		point91	91	291,717.5	523,150.4	6,578.00				Average
		point92	92	291,755.8	523,155.3	6,576.00				Average
		point93	93	291,789.7	523,159.7	6,574.00				Average
		point94	94	291,825.5	523,162.8	6,572.00				Average
		point95	95	291,867.5	523,165.2	6,570.00				Average
		point96	96	291,924.9	523,164.6	6,568.00				Average
		point97	97	292,110.8	523,167.1	6,568.00				
N Carefree E/O A.R. EB#2	12.0	point98	98	291,139.7	523,001.0	6,598.00	Signal	0.00	50	Average
		point137	137	291,207.9	523,006.8	6,596.00				Average
		point99	99	291,263.8	523,012.7	6,594.00				Average
		point100	100	291,330.4	523,023.2	6,592.00				Average
		point101	101	291,425.5	523,046.7	6,590.00				Average
		point102	102	291,497.7	523,071.4	6,588.00				Average
		point103	103	291,557.6	523,094.2	6,586.00				Average

**INPUT: ROADWAYS**

**Windermere**

		point104	104	291,604.5	523,109.0	6,584.00				Average
		point105	105	291,645.9	523,120.8	6,582.00				Average
		point106	106	291,683.5	523,131.2	6,580.00				Average
		point107	107	291,716.2	523,138.7	6,578.00				Average
		point108	108	291,752.7	523,144.2	6,576.00				Average
		point109	109	291,786.6	523,148.5	6,574.00				Average
		point110	110	291,821.2	523,151.6	6,572.00				Average
		point111	111	291,861.9	523,154.7	6,570.00				Average
		point112	112	291,916.9	523,154.1	6,568.00				Average
		point113	113	292,110.1	523,154.1	6,568.00				
N Carefree E/O A.R. EB#3	12.0	point114	114	291,126.1	522,991.1	6,598.00	Signal	0.00	50	Average
		point115	115	291,199.6	522,993.6	6,596.00				Average
		point116	116	291,260.1	522,999.8	6,594.00				Average
		point117	117	291,323.0	523,009.0	6,592.00				Average
		point118	118	291,424.2	523,033.1	6,590.00				Average
		point119	119	291,495.2	523,057.2	6,588.00				Average
		point120	120	291,558.2	523,081.9	6,586.00				Average
		point121	121	291,605.8	523,097.9	6,584.00				Average
		point122	122	291,643.4	523,109.7	6,582.00				Average
		point123	123	291,682.3	523,118.9	6,580.00				Average
		point124	124	291,716.9	523,126.3	6,578.00				Average
		point125	125	291,753.3	523,132.5	6,576.00				Average
		point126	126	291,783.6	523,136.2	6,574.00				Average
		point127	127	291,818.8	523,138.1	6,572.00				Average
		point128	128	291,855.2	523,141.8	6,570.00				Average
		point129	129	291,907.0	523,142.4	6,568.00				Average
		point130	130	292,110.1	523,143.0	6,568.00				
N Carefree E/O A.R. EB RT	12.0	point131	131	291,903.3	523,129.4	6,568.00				Average
		point132	132	292,020.0	523,128.2	6,566.00				Average
		point133	133	292,058.2	523,115.8	6,565.50				Average
		point134	134	292,087.9	523,091.1	6,565.50				Average
		point135	135	292,100.2	523,068.3	6,565.00				
Marksheffel N/O N.C. SB Decel	12.0	point138	138	292,107.6	523,394.8	6,574.00				Average
		point139	139	292,107.1	523,331.4	6,572.00				Average
		point140	140	292,093.5	523,271.7	6,570.00				Average
		point141	141	292,049.5	523,238.7	6,568.00				Average
		point142	142	292,023.8	523,234.0	6,568.00				
Marksheffel N/O N.C. SB #2	12.0	point143	143	292,119.5	525,585.8	6,606.00				Average
		point144	144	292,119.5	525,518.2	6,604.00				Average

**INPUT: ROADWAYS**

**Windermere**

		point145	145	292,119.5	525,461.4	6,602.00				Average	
		point146	146	292,119.5	525,398.1	6,600.00				Average	
		point147	147	292,119.5	525,360.2	6,598.00				Average	
		point148	148	292,119.5	525,307.5	6,596.00				Average	
		point149	149	292,119.5	525,237.9	6,594.00				Average	
		point150	150	292,119.5	525,178.9	6,592.00				Average	
		point151	151	292,119.5	525,134.6	6,590.00				Average	
		point152	152	292,119.5	525,098.8	6,588.00				Average	
		point153	153	292,119.5	525,054.5	6,586.00				Average	
		point154	154	292,119.5	525,020.8	6,584.00				Average	
		point155	155	292,119.5	524,978.6	6,582.00				Average	
		point156	156	292,119.5	524,938.6	6,580.00				Average	
		point157	157	292,119.5	524,898.6	6,578.00				Average	
		point158	158	292,119.5	524,858.5	6,576.00				Average	
		point159	159	292,119.5	524,812.1	6,574.00				Average	
		point160	160	292,119.5	524,772.1	6,572.00				Average	
		point161	161	292,119.5	524,734.1	6,570.00				Average	
		point162	162	292,119.5	524,656.1	6,568.00				Average	
		point163	163	292,121.6	524,544.4	6,568.00				Average	
		point164	164	292,120.3	524,490.6	6,570.00				Average	
		point165	165	292,119.5	524,451.6	6,572.00				Average	
		point166	166	292,119.5	524,405.2	6,574.00				Average	
		point167	167	292,119.5	524,276.7	6,576.00				Average	
		point168	168	292,119.5	524,046.9	6,576.00				Average	
		point169	169	292,121.6	523,939.4	6,578.00				Average	
		point170	170	292,121.6	523,560.0	6,578.00				Average	
		point171	171	292,117.4	523,463.0	6,576.00				Average	
		point172	172	292,119.5	523,385.0	6,574.00				Average	
		point173	173	292,117.4	523,315.4	6,572.00				Average	
		point174	174	292,117.4	523,233.2	6,570.00				Average	
		point175	175	292,119.5	523,165.8	6,568.00					
Marksheffel N/O N.C. SB #1	12.0	point176	176	292,132.2	525,594.2	6,606.00				Average	
		point177	177	292,130.0	525,520.4	6,604.00				Average	
		point178	178	292,132.2	525,465.6	6,602.00				Average	
		point179	179	292,132.2	525,404.4	6,600.00				Average	
		point180	180	292,132.2	525,347.6	6,598.00				Average	
		point181	181	292,132.2	525,290.6	6,596.00				Average	
		point182	182	292,132.2	525,235.8	6,594.00				Average	
		point183	183	292,132.2	525,185.2	6,592.00				Average	

**INPUT: ROADWAYS**

**Windermere**

		point184	184	292,132.2	525,134.6	6,590.00				Average
		point185	185	292,132.2	525,100.9	6,588.00				Average
		point186	186	292,132.2	525,062.9	6,586.00				Average
		point187	187	292,132.2	525,020.8	6,584.00				Average
		point188	188	292,132.2	524,980.8	6,582.00				Average
		point189	189	292,132.2	524,947.0	6,580.00				Average
		point190	190	292,132.2	524,909.1	6,578.00				Average
		point191	191	292,132.2	524,871.1	6,576.00				Average
		point192	192	292,132.2	524,826.9	6,574.00				Average
		point193	193	292,132.2	524,769.9	6,572.00				Average
		point194	194	292,132.2	524,729.9	6,570.00				Average
		point195	195	292,132.2	524,649.8	6,568.00				Average
		point196	196	292,132.2	524,508.6	6,568.00				Average
		point197	197	292,132.2	524,464.3	6,570.00				Average
		point198	198	292,132.2	524,426.4	6,572.00				Average
		point199	199	292,132.2	524,240.8	6,576.00				Average
		point200	200	292,132.2	524,099.6	6,576.00				Average
		point201	201	292,132.2	523,954.2	6,578.00				Average
		point202	202	292,132.2	523,549.4	6,578.00				Average
		point203	203	292,132.2	523,454.6	6,576.00				Average
		point204	204	292,132.2	523,378.7	6,574.00				Average
		point205	205	292,132.2	523,304.9	6,572.00				Average
		point206	206	292,132.2	523,229.0	6,570.00				Average
		point207	207	292,132.2	523,167.9	6,568.00				
Marksheffel N/O N.C. NB #1	12.0	point248	248	292,199.0	523,165.9	6,568.00	Signal	0.00	50	Average
		point249	249	292,199.0	523,220.6	6,570.00				Average
		point250	250	292,199.0	523,307.3	6,572.00				Average
		point251	251	292,197.1	523,378.9	6,574.00				Average
		point252	252	292,196.4	523,458.9	6,576.00				Average
		point253	253	292,197.1	523,533.4	6,578.00				Average
		point254	254	292,199.0	523,917.8	6,578.00				Average
		point255	255	292,199.0	523,998.9	6,576.00				Average
		point256	256	292,199.0	524,081.8	6,574.00				Average
		point257	257	292,197.1	524,166.6	6,572.00				Average
		point258	258	292,199.0	524,338.1	6,570.00				Average
		point259	259	292,199.0	524,460.6	6,568.00				Average
		point260	260	292,197.1	524,511.4	6,566.00				Average
		point261	261	292,197.1	524,549.1	6,566.00				Average
		point262	262	292,197.1	524,584.9	6,564.00				Average

**INPUT: ROADWAYS**

**Windermere**

		point263	263	292,197.1	524,598.1	6,566.00				Average
		point264	264	292,197.1	524,677.3	6,568.00				Average
		point265	265	292,199.0	524,720.6	6,570.00				Average
		point266	266	292,199.0	524,752.7	6,572.00				Average
		point267	267	292,197.1	524,782.8	6,574.00				Average
		point268	268	292,197.1	524,814.9	6,576.00				Average
		point269	269	292,197.1	524,848.8	6,578.00				Average
		point270	270	292,197.1	524,886.5	6,580.00				Average
		point271	271	292,199.0	524,916.6	6,582.00				Average
		point272	272	292,200.9	524,950.6	6,584.00				Average
		point273	273	292,199.0	524,990.1	6,586.00				Average
		point274	274	292,199.0	525,025.9	6,588.00				Average
		point275	275	292,199.0	525,056.1	6,590.00				Average
		point276	276	292,199.0	525,090.0	6,592.00				Average
		point277	277	292,199.0	525,137.1	6,594.00				Average
		point278	278	292,197.1	525,180.4	6,596.00				Average
		point279	279	292,197.1	525,233.2	6,598.00				Average
		point280	280	292,197.1	525,291.6	6,600.00				Average
		point281	281	292,197.1	525,346.3	6,602.00				Average
		point282	282	292,197.1	525,402.8	6,604.00				Average
		point283	283	292,199.0	525,470.7	6,606.00				Average
		point284	284	292,197.1	525,495.2	6,606.00				Average
		point285	285	292,197.1	525,517.8	6,606.00				Average
		point286	286	292,199.0	525,546.1	6,608.00				
Marksheffel N/O N.C. NB #2	12.0	point287	287	292,212.2	523,171.6	6,568.00	Signal	0.00	50	Average
		point288	288	292,212.2	523,237.6	6,570.00				Average
		point289	289	292,209.8	523,317.8	6,572.00				Average
		point290	290	292,210.3	523,386.4	6,574.00				Average
		point291	291	292,210.3	523,469.3	6,576.00				Average
		point292	292	292,210.3	523,557.9	6,578.00				Average
		point293	293	292,210.3	523,825.5	6,578.00				Average
		point294	294	292,210.3	523,938.6	6,576.00				Average
		point295	295	292,210.3	524,010.2	6,574.00				Average
		point296	296	292,210.3	524,049.8	6,574.00				Average
		point297	297	292,208.4	524,085.6	6,572.00				Average
		point298	298	292,208.4	524,243.9	6,570.00				Average
		point299	299	292,208.4	524,443.6	6,568.00				Average
		point300	300	292,208.4	524,488.9	6,566.00				Average
		point301	301	292,210.3	524,573.6	6,564.00				Average

**INPUT: ROADWAYS**

**Windermere**

		point302	302	292,210.3	524,609.4	6,566.00				Average	
		point303	303	292,210.3	524,690.5	6,568.00				Average	
		point304	304	292,212.2	524,720.6	6,570.00				Average	
		point305	305	292,210.3	524,748.9	6,572.00				Average	
		point306	306	292,210.3	524,780.9	6,574.00				Average	
		point307	307	292,210.3	524,811.1	6,576.00				Average	
		point308	308	292,210.3	524,833.7	6,578.00				Average	
		point309	309	292,208.4	524,867.6	6,580.00				Average	
		point310	310	292,208.4	524,907.2	6,582.00				Average	
		point311	311	292,210.0	524,939.2	6,584.00				Average	
		point312	312	292,208.4	524,978.8	6,586.00				Average	
		point313	313	292,208.4	525,008.9	6,588.00				Average	
		point314	314	292,210.3	525,041.0	6,590.00				Average	
		point315	315	292,210.3	525,078.7	6,592.00				Average	
		point316	316	292,210.3	525,118.2	6,594.00				Average	
		point317	317	292,208.4	525,163.5	6,596.00				Average	
		point318	318	292,208.4	525,216.2	6,598.00				Average	
		point319	319	292,210.3	525,269.0	6,600.00				Average	
		point320	320	292,210.3	525,325.6	6,602.00				Average	
		point321	321	292,210.7	525,372.3	6,604.00				Average	
		point322	322	292,210.3	525,457.5	6,606.00				Average	
		point323	323	292,210.0	525,534.4	6,608.00				Average	
		point324	324	292,210.3	525,589.4	6,610.00					
Marksheffel S/O N.C. SB Accel	12.0	point325	325	292,101.1	523,064.2	6,565.00				Average	
		point326	326	292,104.6	523,033.2	6,564.00					
Marksheffel S/O N.C. SB #2	12.0	point327	327	292,119.7	523,161.7	6,568.00	Signal	0.00	50	Average	
		point328	328	292,119.7	523,098.8	6,566.00				Average	
		point329	329	292,119.7	523,027.9	6,564.00					
Marksheffel S/O N.C. SB #1	12.0	point330	330	292,132.1	523,159.9	6,568.00	Signal	0.00	50	Average	
		point331	331	292,132.1	523,091.7	6,566.00				Average	
		point332	332	292,131.2	523,021.7	6,564.00					
Marksheffel S/O N.C. NB LT	12.0	point333	333	292,161.3	522,991.6	6,564.00				Average	
		point334	334	292,160.5	523,065.2	6,566.00				Average	
		point335	335	292,160.5	523,150.2	6,568.00					
Marksheffel S/O N.C. NB #1	12.0	point336	336	292,199.4	523,018.2	6,564.00				Average	
		point337	337	292,197.7	523,091.7	6,566.00				Average	
		point338	338	292,197.7	523,161.7	6,568.00					
Marksheffel S/O N.C. NB #2	12.0	point339	339	292,210.1	523,025.3	6,564.00				Average	
		point340	340	292,209.2	523,103.2	6,566.00				Average	

**INPUT: ROADWAYS**

**Windermere**

		point341	341	292,209.2	523,167.9	6,568.00					
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**INPUT: RECEIVERS****Windermere**

23	24	1	292,029.5	523,544.2	6,581.00	4.92	0.00	67	10.0	8.0	Y
24	25	1	292,028.7	523,489.5	6,580.00	4.92	0.00	67	10.0	8.0	Y
25	26	1	291,833.5	523,295.2	6,579.00	4.92	0.00	67	10.0	8.0	Y
26	27	1	291,783.5	523,292.8	6,581.50	4.92	0.00	67	10.0	8.0	Y
27	28	1	291,733.2	523,287.3	6,582.50	4.92	0.00	67	10.0	8.0	Y
28	29	1	291,683.5	523,277.9	6,584.25	4.92	0.00	67	10.0	8.0	Y
29	30	1	291,632.5	523,267.3	6,584.75	4.92	0.00	67	10.0	8.0	Y
30	31	1	291,581.8	523,254.3	6,585.50	4.92	0.00	67	10.0	8.0	Y
31	32	1	291,531.1	523,238.6	6,586.75	4.92	0.00	67	10.0	8.0	Y
32	33	1	291,483.5	523,222.2	6,588.50	4.92	0.00	67	10.0	8.0	Y
33	34	1	291,433.5	523,204.9	6,589.75	4.92	0.00	67	10.0	8.0	Y
34	35	1	291,383.5	523,187.7	6,591.00	4.92	0.00	67	10.0	8.0	Y
35	36	1	291,328.5	523,174.0	6,592.75	4.92	0.00	67	10.0	8.0	Y
36	37	1	291,259.2	523,197.7	6,596.00	4.92	0.00	67	10.0	8.0	Y

LSC									1 February 2019										
KDF									TNM 2.5										
INPUT: BARRIERS																			
PROJECT/CONTRACT:	Windermere																		
RUN:	2040 PM Peak Hour																		
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-
				Area	Vol.			Length							ment				tions?
		ft	ft	\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft			ft	ft	ft	ft	ft				
East Wall	W	0.00	99.99	0.00				0.00	point15	15	292,057.9	523,574.6	6,579.00	8.00	1.00	0	0		
									point17	17	292,058.5	523,551.0	6,578.00	8.00	1.00	0	0		
									point18	18	292,058.5	523,531.6	6,577.00	8.00	1.00	0	0		
									point19	19	292,058.6	523,512.2	6,576.00	8.00	1.00	0	0		
									point20	20	292,058.7	523,499.5	6,575.00	8.00	1.00	0	0		
									point21	21	292,058.7	523,489.7	6,574.00	8.00	1.00	0	0		
									point22	22	292,058.8	523,470.5	6,573.00	8.00					