

# **Appendix N**

*ICE Reports*

*IR-71/IR-271 Interchange No Build ICE Reports*

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	Smart Services, Inc.
<b>Intersection:</b>	#10
<b>Route:</b>	SR 94
<b>Logpoint:</b>	15.13
<b>Common Name:</b>	SR 94 (Ridge Rd) & SR 3 (Ledge Rd)
<b>Date Performed:</b>	10/24/2025
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs		
	Existing	Traffic Signal Phasing	Roundabout
Planning, Construction & Right of Way Costs	\$ -	\$ 167,000	\$ 4,378,000
Post-Opening Costs			
Auto Passenger Delay	\$ 31,634,984	\$ 64,378,270	\$ 3,218,367
Truck Delay	\$ 1,806,150	\$ 3,675,576	\$ 183,748
Safety	--	--	--
<b>Total cost</b>	<b>\$33,441,133</b>	<b>\$68,220,846</b>	<b>\$7,780,115</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case		
	Existing	Traffic Signal Phasing	Roundabout
Auto Passenger Delay	\$ -	\$ (32,743,286)	\$ 28,416,617
Truck Delay	\$ -	\$ (1,869,426)	\$ 1,622,402
Safety			
<b>Net Present Value of Benefits</b>		<b>\$ (34,612,713)</b>	<b>\$ 30,039,018</b>
<b>Net Present Value of Costs</b>		<b>\$ 167,000</b>	<b>\$ 4,378,000</b>
<b>Net Present Value of Improvement</b>		<b>\$ (34,779,713)</b>	<b>\$ 25,661,018</b>
<b>Delay B/C</b>		Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.	<b>6.86</b>

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	ADR & Associates
<b>Intersection:</b>	#30
<b>Route:</b>	SR 3
<b>Logpoint:</b>	17.26
<b>Common Name:</b>	SR 3 (Weymouth Rd) & W 130th St
<b>Date Performed:</b>	7/2/2024
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs		
	Existing	Roundabout	Right Turn Lane on 130th St
Planning, Construction & Right of Way Costs	\$ -	\$ 3,500,000	\$ 80,000
Post-Opening Costs			
Auto Passenger Delay	\$ 2,223,214	\$ 2,091,757	\$ 1,514,981
Truck Delay	\$ 126,931	\$ 119,426	\$ 86,495
Safety	--	--	--
<b>Total cost</b>	<b>\$2,350,145</b>	<b>\$5,711,183</b>	<b>\$1,681,476</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case		
	Existing	Roundabout	Right Turn Lane on 130th St
Auto Passenger Delay	\$ -	\$ 131,457	\$ 708,234
Truck Delay	\$ -	\$ 7,505	\$ 40,435
Safety			
<b>Net Present Value of Benefits</b>		<b>\$ 138,962</b>	<b>\$ 748,669</b>
<b>Net Present Value of Costs</b>		<b>\$ 3,500,000</b>	<b>\$ 80,000</b>
<b>Net Present Value of Improvement</b>		<b>\$ (3,361,038)</b>	<b>\$ 668,669</b>
<b>Delay B/C</b>		<b>0.04</b>	<b>9.36</b>

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	Smart Services
<b>Intersection:</b>	#40
<b>Route:</b>	SR 3
<b>Logpoint:</b>	17.09
<b>Common Name:</b>	SR 3 (Weymouth Rd) & I-71 NB Ramps
<b>Date Performed:</b>	8/28/2025
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs		
	Existing Conditions	Dual EB Left Turning Lanes	Dual EB Left Turning Lanes + WB Right Turn Lane
Planning, Construction & Right of Way Costs	\$ -	\$ 1,327,000	\$ 1,631,000
Post-Opening Costs	\$ 95,545	\$ 95,545	\$ 95,545
Auto Passenger Delay	\$ 22,837,600	\$ 15,357,115	\$ 14,817,410
Truck Delay	\$ 1,303,877	\$ 876,790	\$ 845,977
Safety	--	--	--
<b>Total cost</b>	<b>\$24,237,022</b>	<b>\$17,656,450</b>	<b>\$17,389,932</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case		
	Existing Conditions	Dual EB Left Turning Lanes	Dual EB Left Turning Lanes + WB Right Turn Lane
Auto Passenger Delay		\$ 7,480,486	\$ 8,020,190
Truck Delay		\$ 427,087	\$ 457,900
Safety			
<b>Net Present Value of Benefits</b>		<b>\$ 7,907,572</b>	<b>\$ 8,478,090</b>
<b>Net Present Value of Costs</b>		<b>\$ 1,327,000</b>	<b>\$ 1,631,000</b>
<b>Net Present Value of Improvement</b>		<b>\$ 6,580,572</b>	<b>\$ 6,847,090</b>
<b>Delay B/C</b>		<b>5.96</b>	<b>5.20</b>

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	Smart Services, Inc.
<b>Intersection:</b>	#70
<b>Route:</b>	SR 3
<b>Logpoint:</b>	16.17
<b>Common Name:</b>	SR 3 (Weymouth Rd) & Remsen Rd/Foskett Rd
<b>Date Performed:</b>	10/24/2025
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs	
	Existing	SR 3 Left Turn Lanes
Planning, Construction & Right of Way Costs	\$ -	\$ 1,353,000
Post-Opening Costs		
Auto Passenger Delay	\$ 11,996,994	\$ 12,561,450
Truck Delay	\$ 684,950	\$ 717,176
Safety	--	--
<b>Total cost</b>	<b>\$12,681,944</b>	<b>\$14,631,626</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case	
	Existing	SR 3 Left Turn Lanes
Auto Passenger Delay	\$ -	\$ (564,455)
Truck Delay	\$ -	\$ (32,227)
Safety		
<b>Net Present Value of Benefits</b>		<b>\$ (596,682)</b>
<b>Net Present Value of Costs</b>		<b>\$ 1,353,000</b>
<b>Net Present Value of Improvement</b>		<b>\$ (1,949,682)</b>
<b>Delay B/C</b>		Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	Smart Services, Inc.
<b>Intersection:</b>	#230
<b>Route:</b>	SR 94
<b>Logpoint:</b>	14.44
<b>Common Name:</b>	SR 94 (Ridge Rd) & I-271 NB Ramps
<b>Date Performed:</b>	10/24/2025
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs	
	Existing	Roundabout
Planning, Construction & Right of Way Costs	\$ -	\$ 3,000,000
Post-Opening Costs		
Auto Passenger Delay	\$ 30,623,368	\$ 6,183,929
Truck Delay	\$ 1,748,393	\$ 353,062
Safety	--	--
<b>Total cost</b>	<b>\$32,371,761</b>	<b>\$9,536,991</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case	
	Existing	Roundabout
Auto Passenger Delay	\$ -	\$ 24,439,439
Truck Delay	\$ -	\$ 1,395,331
Safety		
<b>Net Present Value of Benefits</b>		<b>\$ 25,834,770</b>
<b>Net Present Value of Costs</b>		<b>\$ 3,000,000</b>
<b>Net Present Value of Improvement</b>		<b>\$ 22,834,770</b>
<b>Delay B/C</b>		<b>8.61</b>

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	Smart Services, Inc.
<b>Intersection:</b>	#240
<b>Route:</b>	SR 94
<b>Logpoint:</b>	14.56
<b>Common Name:</b>	SR 94 (Ridge Rd) & I-271 SB Ramps
<b>Date Performed:</b>	10/24/2025
<b>Analysis Type</b>	At-Grade Intersection

## Analysis Summary

Cost Categories	Net Present Value of Costs			
	Existing	Right Turn Lanes	Roundabout	Peanut Roundabout
Planning, Construction & Right of Way Costs	\$ -	\$ -	\$ -	
Post-Opening Costs				
Auto Passenger Delay	\$ 64,613,674	\$ 10,664,332	\$ 5,413,593	\$ 3,308,024
Truck Delay	\$ 3,689,016	\$ 608,863	\$ 309,081	\$ 188,866
Safety	--	--	--	--
<b>Total cost</b>	<b>\$68,302,690</b>	<b>\$11,273,196</b>	<b>\$5,722,673</b>	<b>\$3,496,890</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case			
	Existing	Right Turn Lanes	Roundabout	Peanut Roundabout
Auto Passenger Delay	\$ -	\$ 53,949,342	\$ 59,200,082	\$ 61,305,651
Truck Delay	\$ -	\$ 3,080,153	\$ 3,379,935	\$ 3,500,150
Safety				
<b>Net Present Value of Benefits</b>		<b>\$ 57,029,495</b>	<b>\$ 62,580,017</b>	<b>\$ 64,805,800</b>
<b>Net Present Value of Costs</b>				
<b>Net Present Value of Improvement</b>				
<b>Delay B/C</b>		Refer to Preliminary Matrix for #240-250 combined benefit	Refer to Preliminary Matrix for #240-250 combined benefit	Refer to Preliminary Matrix for #240-250 combined benefit

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	Smart Services
<b>Intersection:</b>	#250
<b>Route:</b>	SR 94
<b>Logpoint:</b>	14.63
<b>Common Name:</b>	SR 94 (Ridge Rd) & Remsen Rd (North)
<b>Date Performed:</b>	10/27/2025
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs			
	Existing	Roundabout	Medium-Term Turn Lane	Peanut Roundabout
Planning, Construction & Right of Way Costs	\$ -	\$ -	\$ 692,000	\$ -
Post-Opening Costs				
Auto Passenger Delay	\$ 27,846,235	\$ 5,971,436	\$ 9,636,618	\$ 3,086,752
Truck Delay	\$ 1,589,837	\$ 340,930	\$ 550,188	\$ 176,233
Safety	--	--	--	--
<b>Total cost</b>	<b>\$29,436,072</b>	<b>\$6,312,366</b>	<b>\$10,878,806</b>	<b>\$3,262,985</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case			
	Existing	Roundabout	Medium-Term Turn Lane	Peanut Roundabout
Auto Passenger Delay	\$ -	\$ 21,874,799	\$ 18,209,617	\$ 24,759,483
Truck Delay	\$ -	\$ 1,248,907	\$ 1,039,649	\$ 1,413,604
Safety				
<b>Net Present Value of Benefits</b>		<b>\$ 23,123,706</b>	<b>\$ 19,249,267</b>	<b>\$ 26,173,087</b>
<b>Net Present Value of Costs</b>			<b>\$ 692,000</b>	
<b>Net Present Value of Improvement</b>			<b>\$ 18,557,267</b>	
<b>Delay B/C</b>		Refer to Preliminary Matrix for #240-250 combined benefit	27.82	Refer to Preliminary Matrix for #240-250 combined benefit

*IR-71/IR-271 Interchange Build ICE Reports*

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	Smart Services, Inc.
<b>Intersection:</b>	#10
<b>Route:</b>	SR 94
<b>Logpoint:</b>	15.13
<b>Common Name:</b>	SR 94 (Ridge Rd) & SR 3 (Ledge Rd)
<b>Date Performed:</b>	10/24/2025
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs		
	Existing	Traffic Signal Phasing	Roundabout
Planning, Construction & Right of Way Costs	\$ -	\$ 167,000	\$ 4,378,000
Post-Opening Costs			
Auto Passenger Delay	\$ 4,889,234	--	\$ 2,130,686
Truck Delay	\$ 279,143	--	\$ 121,648
Safety	--	--	--
<b>Total cost</b>	<b>\$5,168,377</b>	<b>\$167,000</b>	<b>\$6,630,334</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case		
	Existing	Traffic Signal Phasing	Roundabout
Auto Passenger Delay	\$ -		\$ 2,758,548
Truck Delay	\$ -		\$ 157,495
Safety			
<b>Net Present Value of Benefits</b>			<b>\$ 2,916,043</b>
<b>Net Present Value of Costs</b>		<b>\$ 167,000</b>	<b>\$ 4,378,000</b>
<b>Net Present Value of Improvement</b>			<b>\$ (1,461,957)</b>
<b>Delay B/C</b>		Alternative not evaluated with Build conditions.	0.67

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	ADR & Associates
<b>Intersection:</b>	#30
<b>Route:</b>	SR 3
<b>Logpoint:</b>	17.26
<b>Common Name:</b>	SR 3 (Weymouth Rd) & W 130th St
<b>Date Performed:</b>	7/2/2024
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs		
	Existing	Roundabout	Right Turn Lane on 130th St
Planning, Construction & Right of Way Costs	\$ -	\$ 3,500,000	\$ 80,000
Post-Opening Costs			
Auto Passenger Delay	\$ 1,320,328	--	\$ 962,615
Truck Delay	\$ 75,382	--	\$ 54,959
Safety	--	--	--
<b>Total cost</b>	<b>\$1,395,710</b>	<b>\$3,500,000</b>	<b>\$1,097,574</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case		
	Existing	Roundabout	Right Turn Lane on 130th St
Auto Passenger Delay	\$ -		\$ 357,713
Truck Delay	\$ -		\$ 20,423
Safety			
<b>Net Present Value of Benefits</b>			<b>\$ 378,136</b>
<b>Net Present Value of Costs</b>		<b>\$ 3,500,000</b>	<b>\$ 80,000</b>
<b>Net Present Value of Improvement</b>			<b>\$ 298,136</b>
<b>Delay B/C</b>		Alternative not evaluated with Build conditions.	4.73

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	Smart Services
<b>Intersection:</b>	#40
<b>Route:</b>	SR 3
<b>Logpoint:</b>	17.09
<b>Common Name:</b>	SR 3 (Weymouth Rd) & I-71 NB Ramps
<b>Date Performed:</b>	8/28/2025
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs		
	Existing Conditions	Dual EB Left Turning Lanes	Dual EB Left Turning Lanes + WB Right Turn Lane
Planning, Construction & Right of Way Costs	\$ -	\$ 1,327,000	\$ 1,631,000
Post-Opening Costs	\$ 95,545	\$ 95,545	\$ 95,545
Auto Passenger Delay	\$ 20,021,824	\$ 10,156,684	\$ 9,669,835
Truck Delay	\$ 1,143,115	\$ 579,880	\$ 552,084
Safety	--	--	--
<b>Total cost</b>	<b>\$21,260,483</b>	<b>\$12,159,109</b>	<b>\$11,948,464</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case		
	Existing Conditions	Dual EB Left Turning Lanes	Dual EB Left Turning Lanes + WB Right Turn Lane
Auto Passenger Delay		\$ 9,865,140	\$ 10,351,989
Truck Delay		\$ 563,235	\$ 591,031
Safety			
<b>Net Present Value of Benefits</b>		<b>\$ 10,428,374</b>	<b>\$ 10,943,019</b>
<b>Net Present Value of Costs</b>		<b>\$ 1,327,000</b>	<b>\$ 1,631,000</b>
<b>Net Present Value of Improvement</b>		<b>\$ 9,101,374</b>	<b>\$ 9,312,019</b>
<b>Delay B/C</b>		<b>7.86</b>	<b>6.71</b>

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	Smart Services, Inc.
<b>Intersection:</b>	#230
<b>Route:</b>	SR 94
<b>Logpoint:</b>	14.44
<b>Common Name:</b>	SR 94 (Ridge Rd) & I-271 NB Ramps
<b>Date Performed:</b>	10/24/2025
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs	
	Existing	Roundabout
Planning, Construction & Right of Way Costs	\$ -	\$ 3,000,000
Post-Opening Costs		
Auto Passenger Delay	\$ 7,063,205	\$ 4,610,806
Truck Delay	\$ 403,263	\$ 263,247
Safety	--	--
<b>Total cost</b>	<b>\$7,466,467</b>	<b>\$7,874,053</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case	
	Existing	Roundabout
Auto Passenger Delay	\$ -	\$ 2,452,399
Truck Delay	\$ -	\$ 140,016
Safety		
<b>Net Present Value of Benefits</b>		<b>\$ 2,592,415</b>
<b>Net Present Value of Costs</b>		<b>\$ 3,000,000</b>
<b>Net Present Value of Improvement</b>		<b>\$ (407,585)</b>
<b>Delay B/C</b>		<b>0.86</b>

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	Smart Services, Inc.
<b>Intersection:</b>	#240
<b>Route:</b>	SR 94
<b>Logpoint:</b>	14.56
<b>Common Name:</b>	SR 94 (Ridge Rd) & I-271 SB Ramps
<b>Date Performed:</b>	10/27/2025
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs			
	Existing	Right Turn Lanes	Roundabout	Peanut Roundabout
Planning, Construction & Right of Way Costs	\$ -	\$ -	\$ -	\$ -
Post-Opening Costs				
Auto Passenger Delay	\$ 76,996,043	\$ 7,801,595	\$ 4,934,995	\$ 3,214,603
Truck Delay	\$ 4,395,968	\$ 445,420	\$ 281,756	\$ 183,533
Safety	--	--	--	--
<b>Total cost</b>	<b>\$81,392,011</b>	<b>\$8,247,014</b>	<b>\$5,216,751</b>	<b>\$3,398,136</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case			
	Existing	Right Turn Lanes	Roundabout	Peanut Roundabout
Auto Passenger Delay	\$ -	\$ 69,194,449	\$ 72,061,048	\$ 73,781,440
Truck Delay	\$ -	\$ 3,950,548	\$ 4,114,212	\$ 4,212,435
Safety				
<b>Net Present Value of Benefits</b>		<b>\$ 73,144,997</b>	<b>\$ 76,175,261</b>	<b>\$ 77,993,876</b>
<b>Net Present Value of Costs</b>				
<b>Net Present Value of Improvement</b>				
<b>Delay B/C</b>		Refer to Preliminary Matrix for #240-250 combined benefit	Refer to Preliminary Matrix for #240-250 combined benefit	Refer to Preliminary Matrix for #240-250 combined benefit

<b>Analyst:</b>	Ben Philiposian
<b>Agency/Company:</b>	Smart Services
<b>Intersection:</b>	#250
<b>Route:</b>	SR 94
<b>Logpoint:</b>	14.63
<b>Common Name:</b>	SR 94 (Ridge Rd) & Remsen Rd (North)
<b>Date Performed:</b>	10/27/2025
<b>Analysis Type</b>	At-Grade Intersection

### Analysis Summary

Cost Categories	Net Present Value of Costs			
	Existing	Roundabout	Medium-Term Turn Lane	Peanut Roundabout
Planning, Construction & Right of Way Costs	\$ -	\$ -	\$ 692,000	\$ -
Post-Opening Costs				
Auto Passenger Delay	\$ 8,006,910	\$ 3,475,247	--	\$ 2,466,016
Truck Delay	\$ 457,142	\$ 198,414	--	\$ 140,793
Safety	--	--	--	--
<b>Total cost</b>	<b>\$8,464,052</b>	<b>\$3,673,661</b>	<b>\$692,000</b>	<b>\$2,606,809</b>

Benefit Categories	Net Present Value of Benefits Relative to Base Case			
	Existing	Roundabout	Medium-Term Turn Lane	Peanut Roundabout
Auto Passenger Delay	\$ -	\$ 4,531,663		\$ 5,540,895
Truck Delay	\$ -	\$ 258,728		\$ 316,349
Safety				
<b>Net Present Value of Benefits</b>		<b>\$ 4,790,391</b>		<b>\$ 5,857,243</b>
<b>Net Present Value of Costs</b>			<b>\$ 692,000</b>	
<b>Net Present Value of Improvement</b>				
<b>Delay B/C</b>		Refer to Preliminary Matrix for #240-250 combined benefit	Alternative not evaluated with Build conditions.	Refer to Preliminary Matrix for #240-250 combined benefit