

Options for the Future of QuickRide

January 8, 2004

Two Primary Choices

1) Expand QuickRide Hours

- Make improvements to the existing system
- For example, \$1 HOV2 QR on the shoulders of current QR period

2) Extend Service to SOVs

- Make the significant changes required to allow priced SOV usage

Is Option 2 Really an Option?

NOT during QuickRide time

- No room
- Enforcement complications

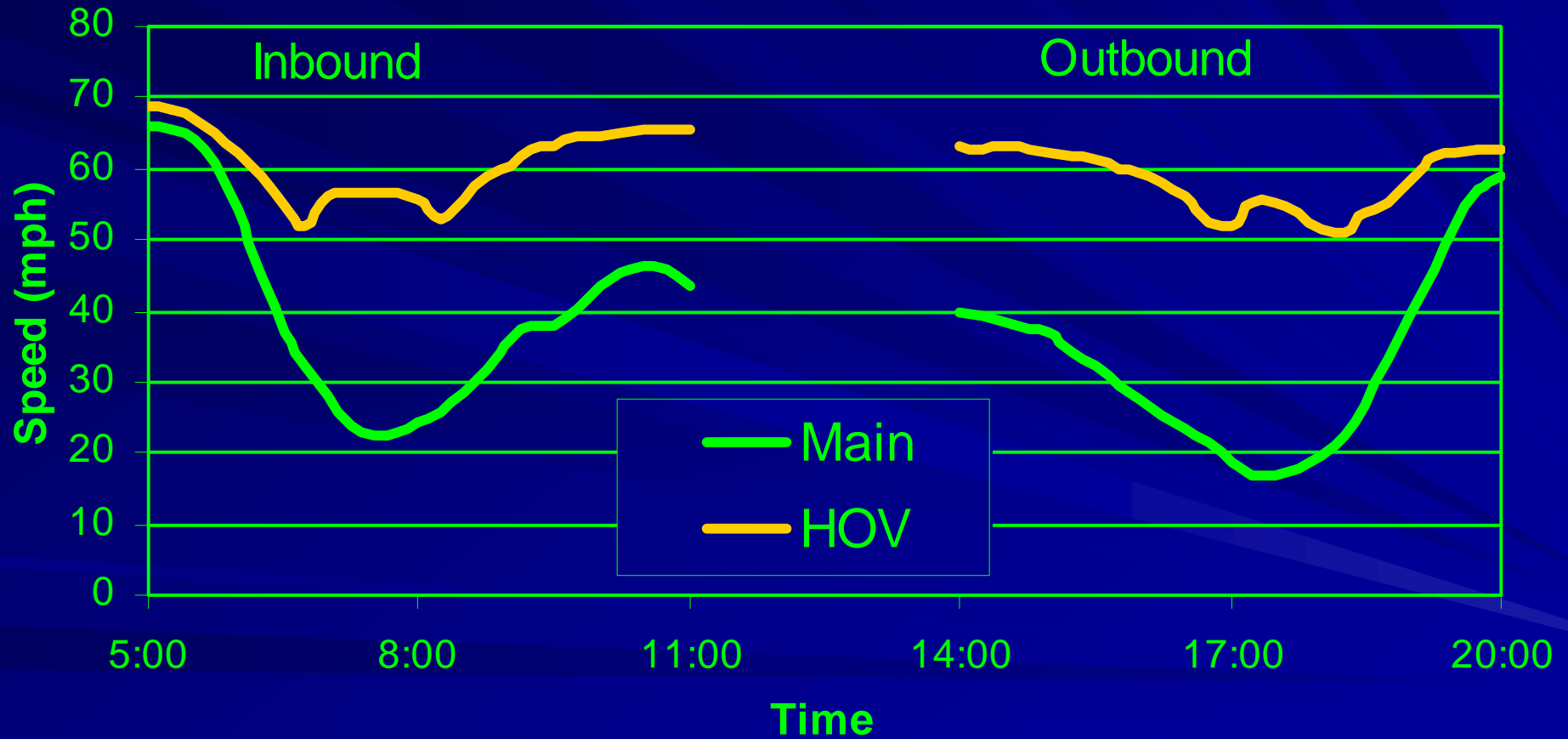
Does the HOT lane save travel time over main lanes? (how much?)

- Is there demand?

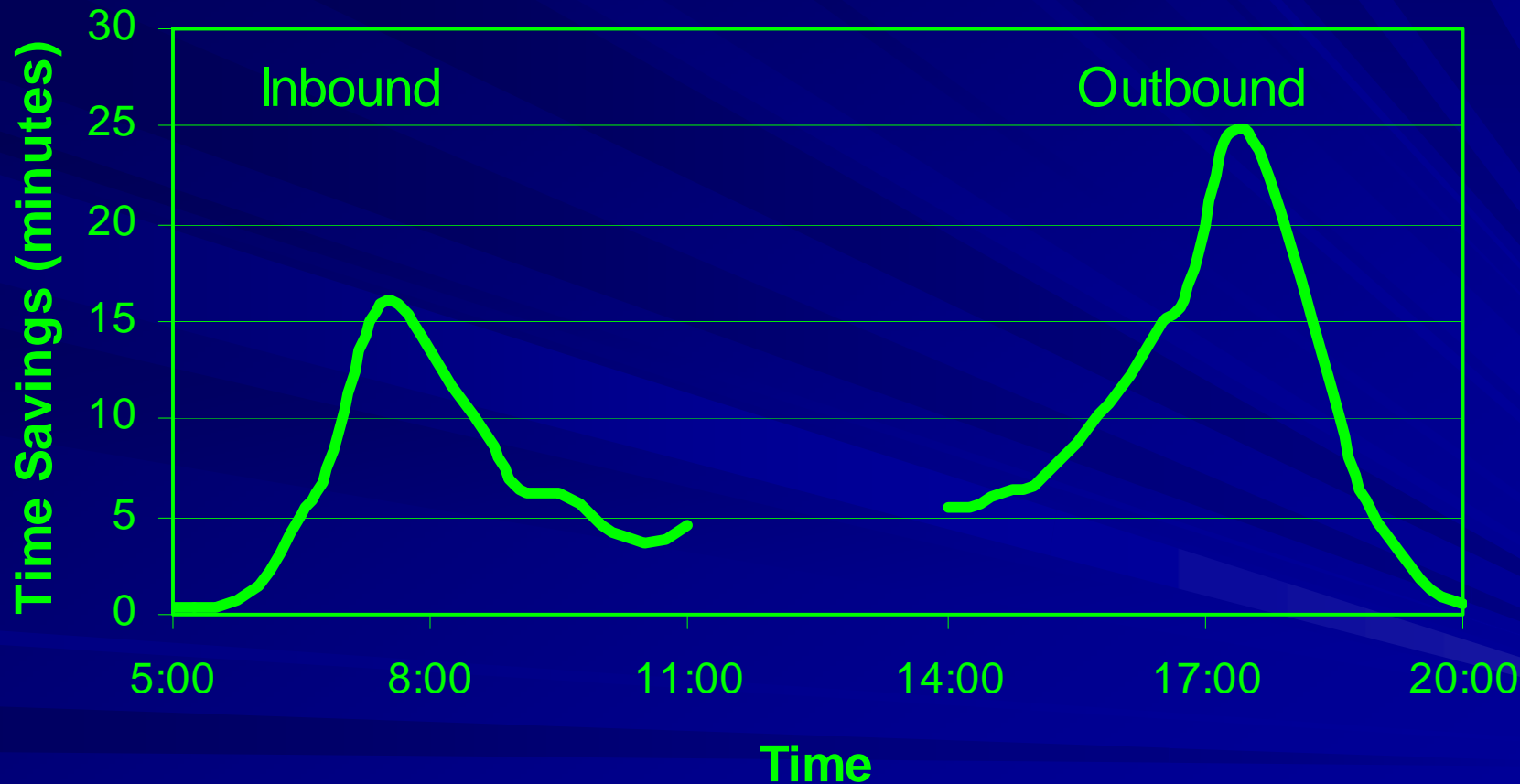
Is there room in the lane? (how much?)

- Allow lane to fill to 1500 vph

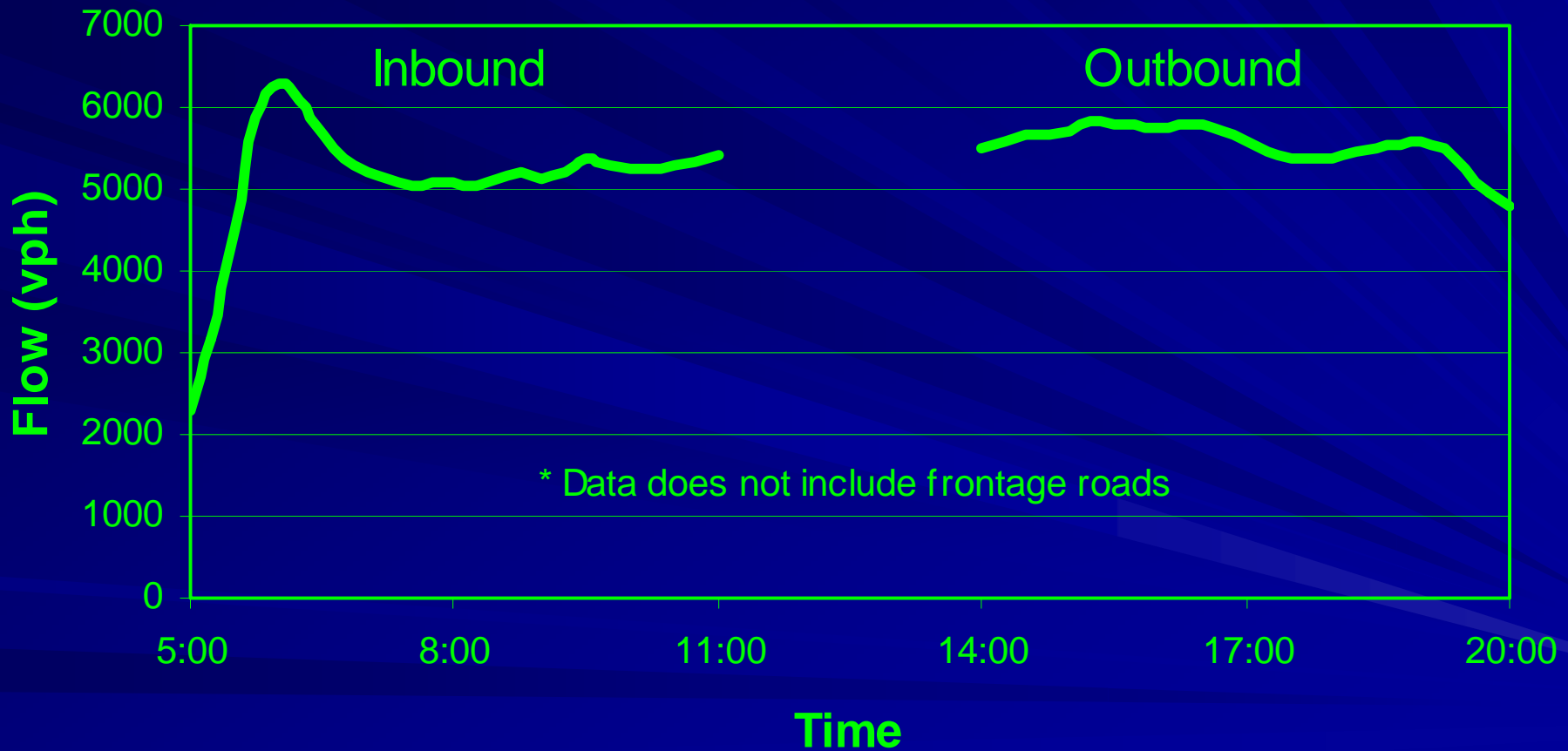
Space Mean Speed - Katy



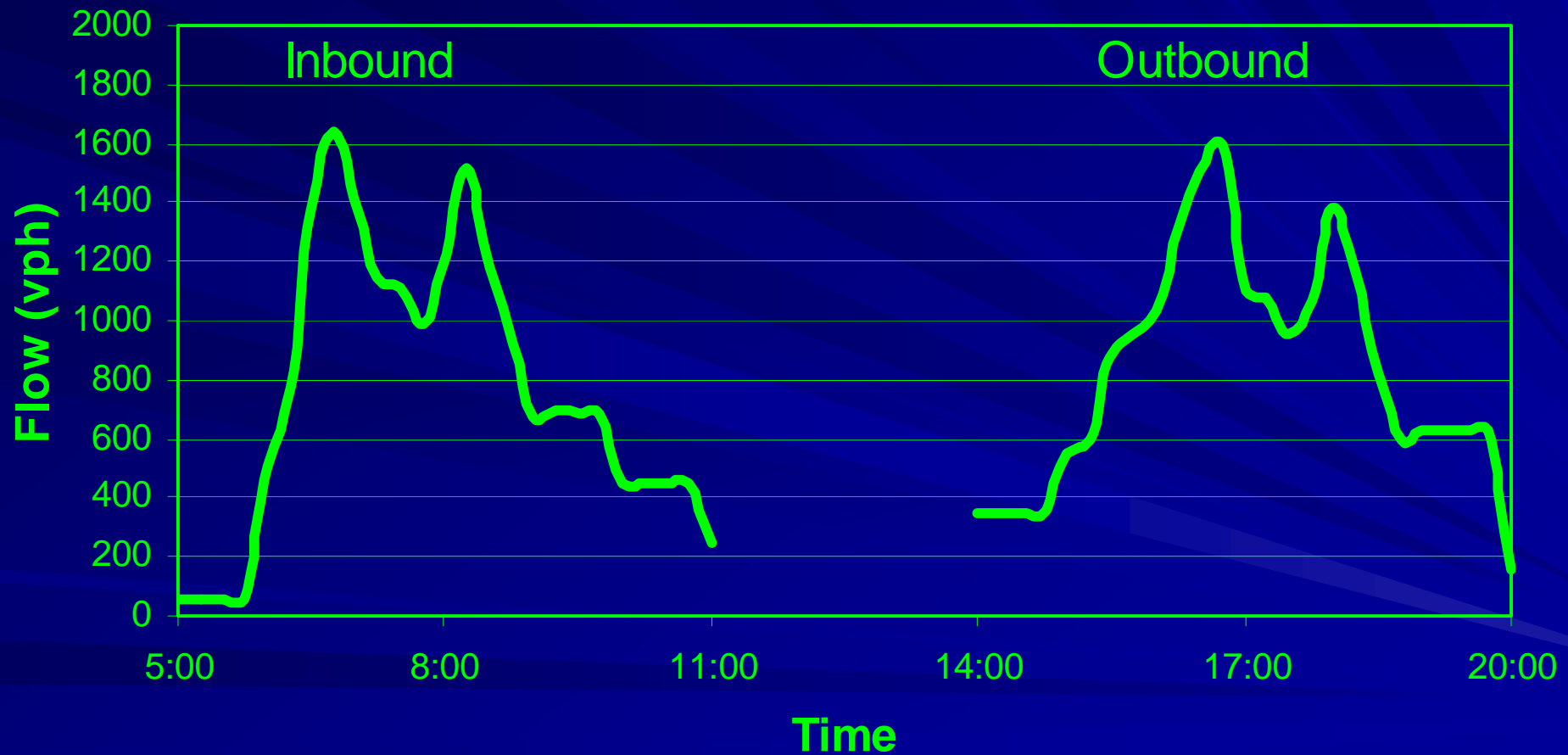
Time Savings - Katy



Flow – Katy Mainlanes



Flow – Katy H0T



Analysis – Katy Inbound

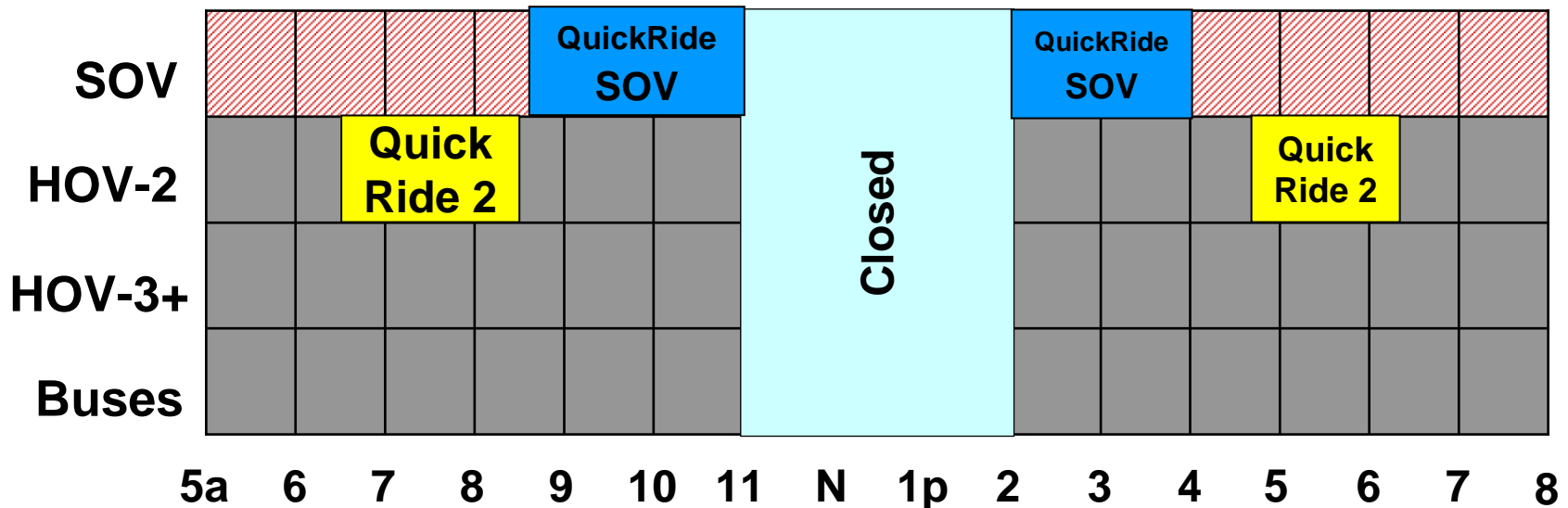
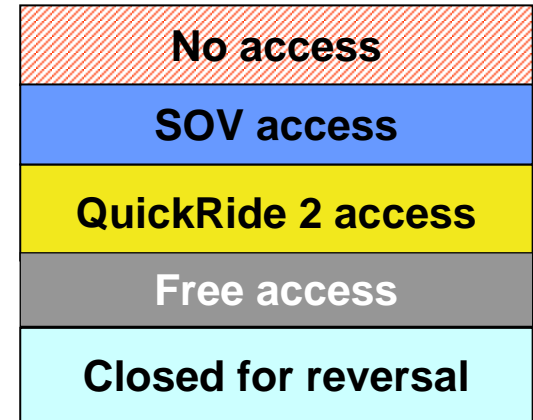
Time	Travel Time Savings Greater than 5 Minutes	Available Capacity Greater Than 500 vph	Outside of Potential QuickRide Period?	All Criteria Met?	Change in Person Movement (to 1400 vph)
5:00	NO	YES	YES	NO	0
5:15	NO	YES	YES	NO	0
5:30	NO	YES	YES	NO	0
5:45	NO	YES	YES	NO	0
6:00	NO	YES	YES	NO	0
6:15	NO	YES	YES	NO	0
6:30	YES	NO	NO	NO	0
6:45	YES	NO	NO	NO	0
7:00	YES	NO	NO	NO	0
7:15	YES	NO	NO	NO	0
7:30	YES	NO	NO	NO	0
7:45	YES	YES	NO	NO	0
8:00	YES	NO	NO	NO	0
8:15	YES	NO	NO	NO	0
8:30	YES	NO	YES	NO	0
8:45	YES	YES	YES	YES	119
9:00	YES	YES	YES	YES	181
9:15	YES	YES	YES	YES	176
9:30	YES	YES	YES	YES	180
9:45	YES	YES	YES	YES	180
10:00	NO	YES	YES	NO	0
10:15	NO	YES	YES	NO	0
10:30	NO	YES	YES	NO	0
10:45	NO	YES	YES	NO	0
11:00	NO	YES	YES	NO	0
				REVENUE =	\$ 208,781.25

Analysis – Katy Outbound

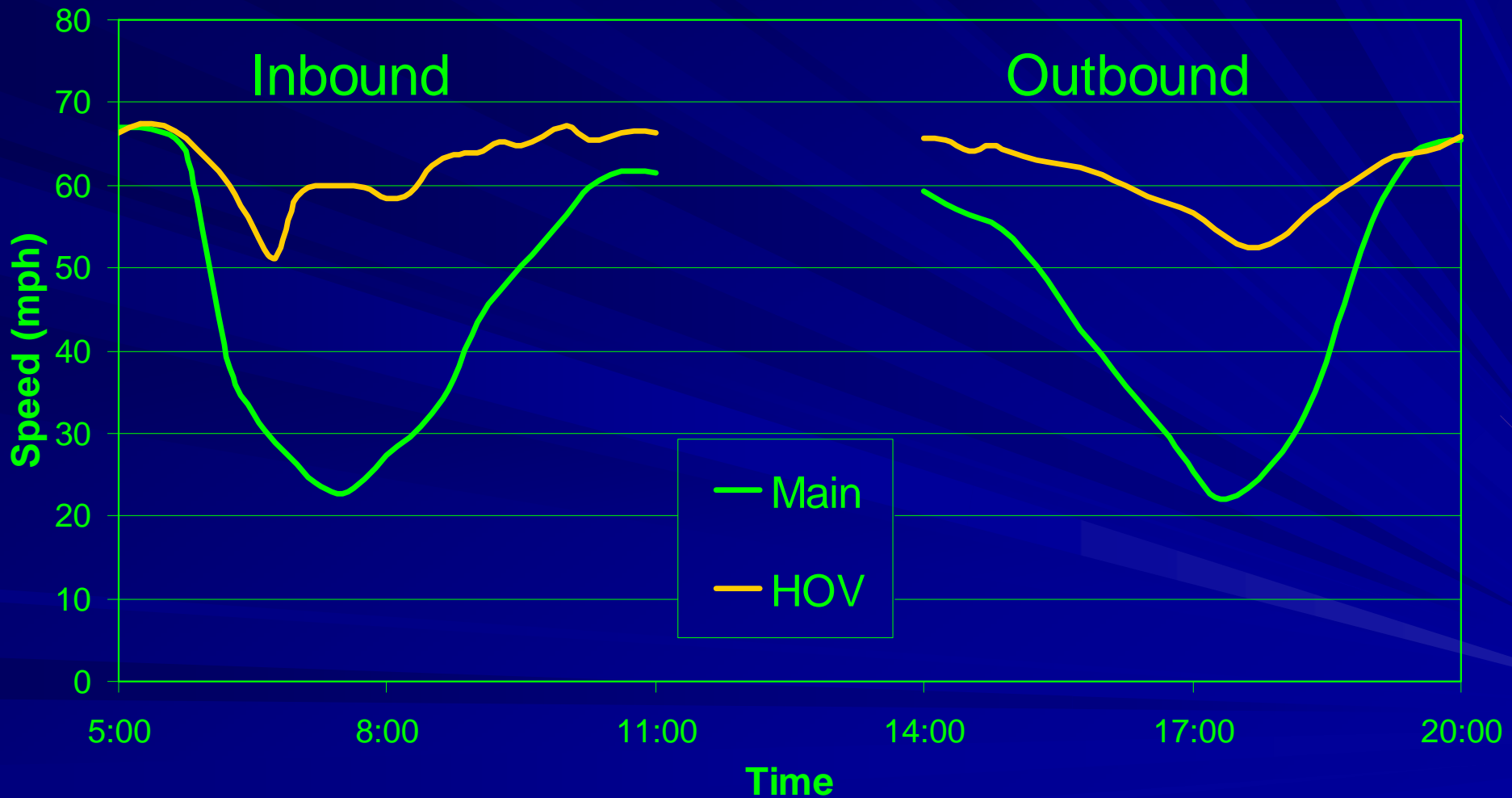
Time	Travel Time Savings	Available Capacity	Outside	All Criteria Met?	Change in Person Movement (to 1400 vph)
	Greater than	Greater Than	of Potential		
	5	500	QuickRide		
	Minutes	vph	Period?		
14:00	YES	YES	YES	YES	264
14:15	YES	YES	YES	YES	264
14:30	YES	YES	YES	YES	264
14:45	YES	YES	YES	YES	264
15:00	YES	YES	YES	YES	213
15:15	YES	YES	YES	YES	201
15:30	YES	YES	YES	YES	130
15:45	YES	YES	YES	YES	112
16:00	YES	NO	YES	NO	0
16:15	YES	NO	YES	NO	0
16:30	YES	NO	YES	NO	0
16:45	YES	NO	NO	NO	0
17:00	YES	NO	NO	NO	0
17:15	YES	NO	NO	NO	0
17:30	YES	YES	NO	NO	0
17:45	YES	NO	NO	NO	0
18:00	YES	NO	NO	NO	0
18:15	YES	NO	YES	NO	0
18:30	YES	YES	YES	YES	146
18:45	YES	YES	YES	YES	202
19:00	NO	YES	YES	NO	0
19:15	NO	YES	YES	NO	0
19:30	NO	YES	YES	NO	0
19:45	NO	YES	YES	NO	0
20:00	NO	YES	YES	NO	0

REVENUE = \$ 428,375.00

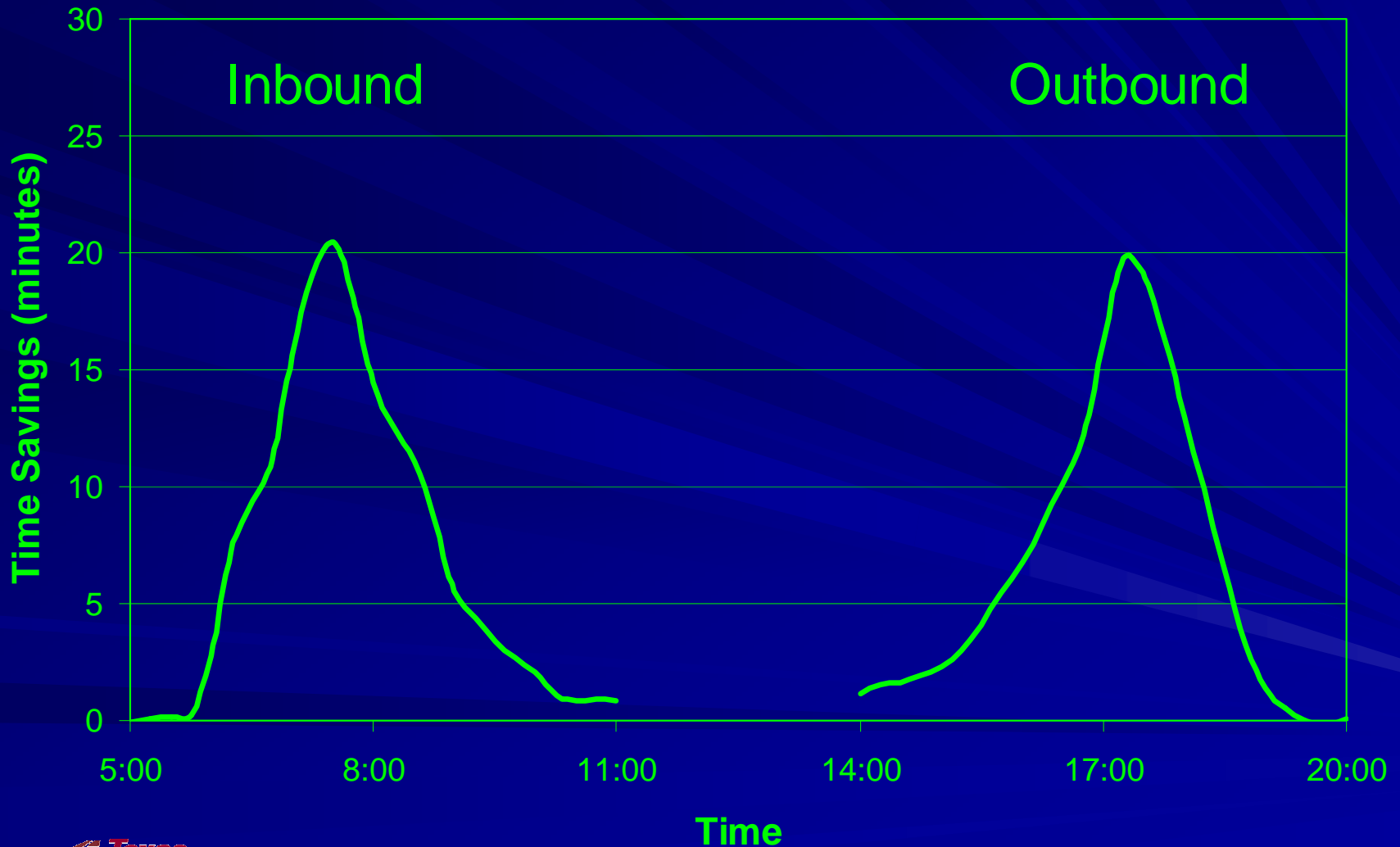
Example of Potential Changes to Katy HOV Lane Eligibility



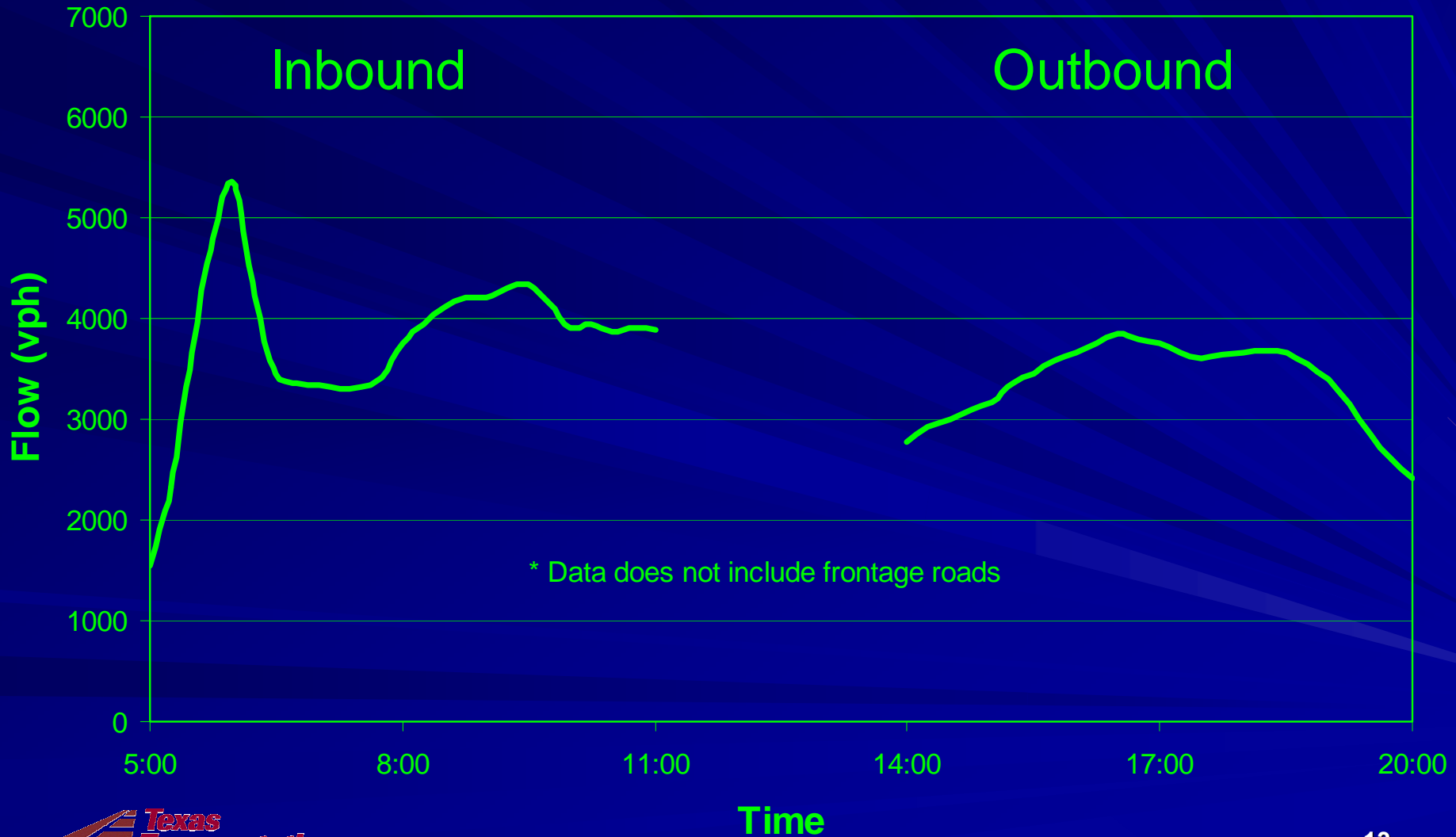
Space Mean Speed – Northwest



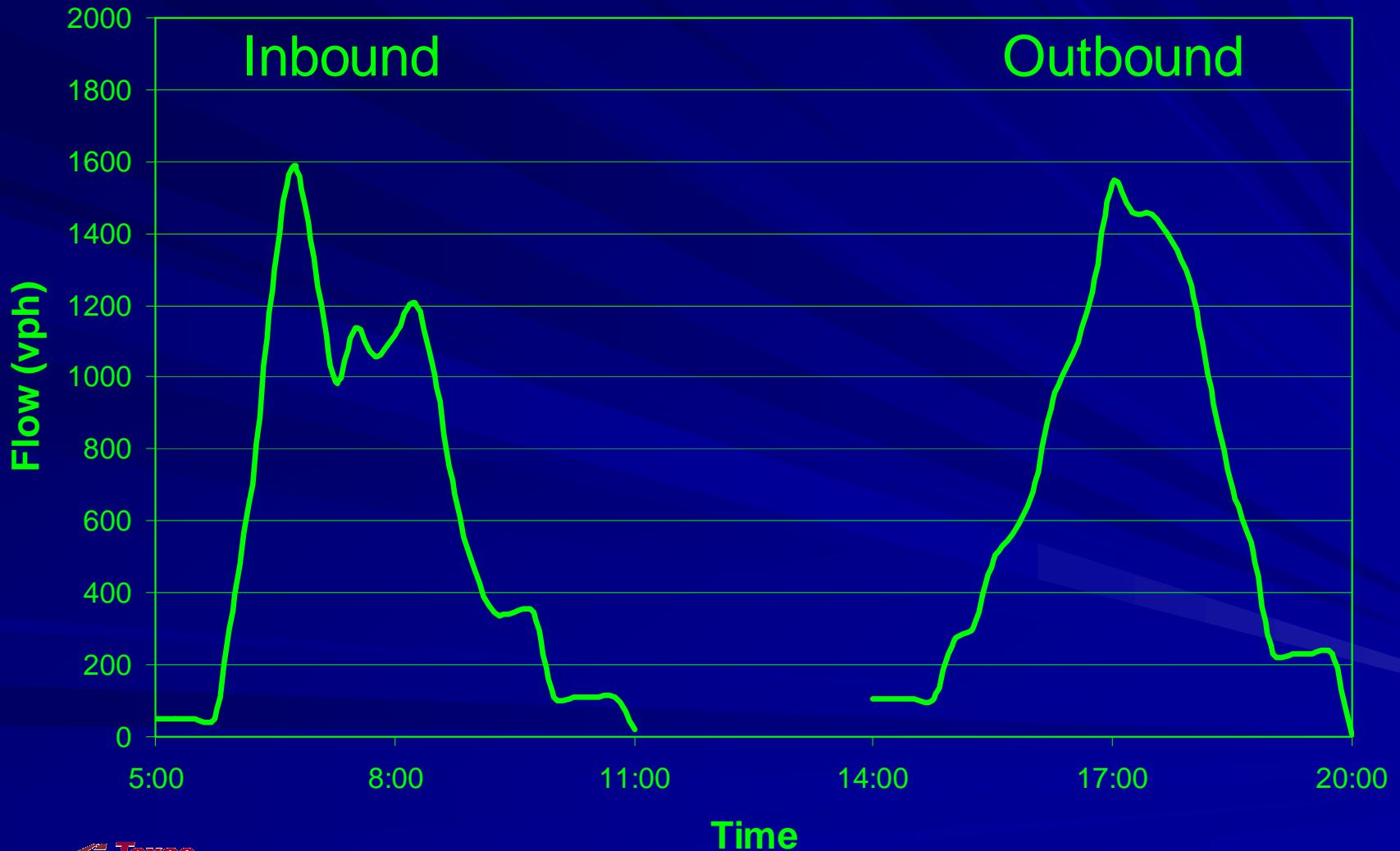
Time Savings – Northwest



Flow – Northwest Mainlanes



Flow – Northwest HOT



Analysis – Northwest Inbound

Time	Travel Time Savings	Available Capacity	Outside	All Criteria Met?	Change in Person Movement (to 1400 vph)
	Greater than	Greater Than	of Potential		
	5	500	QuickRide		
	Minutes	vph	Period?		
5:00	NO	YES	YES	NO	0
5:15	NO	YES	YES	NO	0
5:30	NO	YES	YES	NO	0
5:45	NO	YES	YES	NO	0
6:00	NO	YES	YES	NO	0
6:15	YES	YES	YES	YES	161
6:30	YES	NO	NO	NO	0
6:45	YES	NO	NO	NO	0
7:00	YES	NO	NO	NO	0
7:15	YES	YES	NO	NO	0
7:30	YES	NO	NO	NO	0
7:45	YES	NO	NO	NO	0
8:00	YES	NO	NO	NO	0
8:15	YES	NO	NO	NO	0
8:30	YES	NO	YES	NO	0
8:45	YES	YES	YES	YES	181
9:00	YES	YES	YES	YES	233
9:15	NO	YES	YES	NO	0
9:30	NO	YES	YES	NO	0
9:45	NO	YES	YES	NO	0
10:00	NO	YES	YES	NO	0
10:15	NO	YES	YES	NO	0
10:30	NO	YES	YES	NO	0
10:45	NO	YES	YES	NO	0
11:00	NO	YES	YES	NO	0

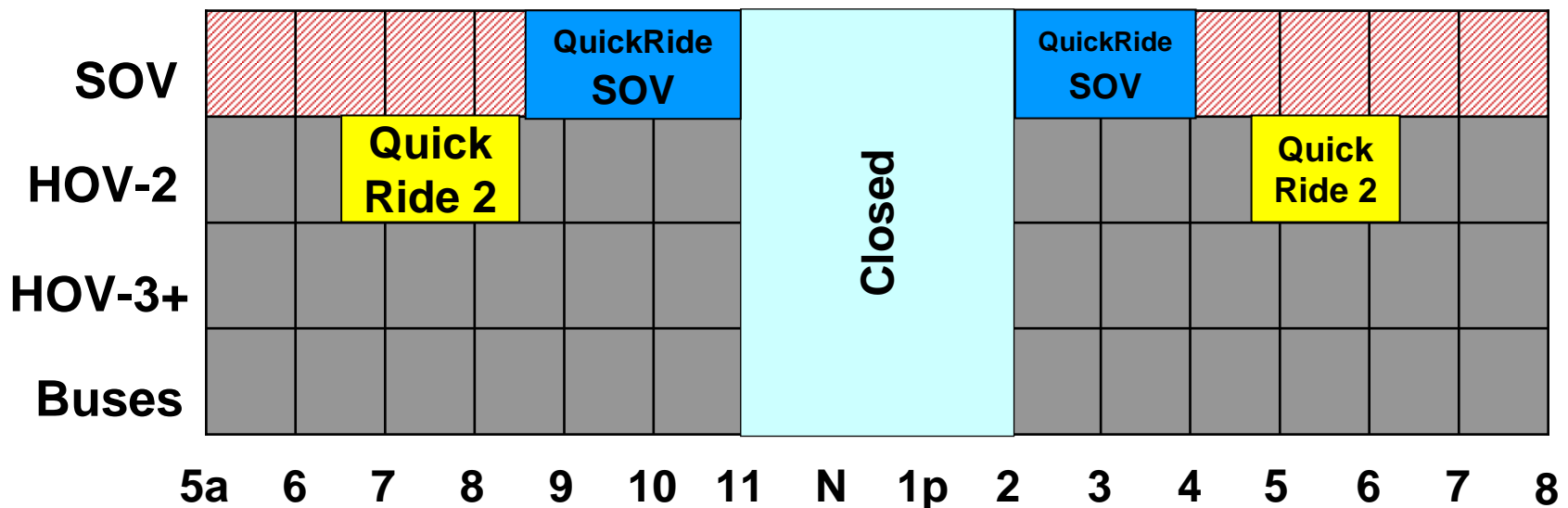
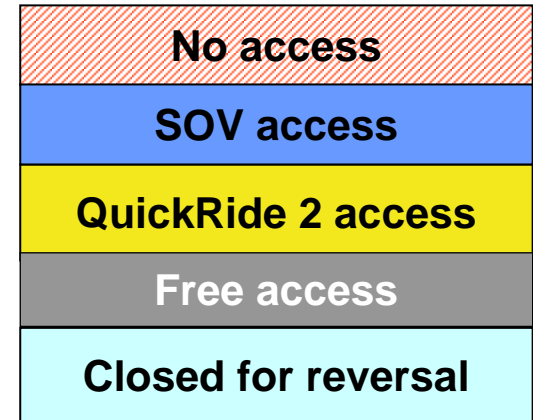
REVENUE = \$ 103,500.00

Analysis – Northwest Outbound

Time	Travel Time Savings	Available Capacity	Outside	All Criteria Met?	Change in Person Movement (to 1400 vph)
	Greater than	Greater Than	of Potential		
	5	500	QuickRide		
	Minutes	vph	Period?		
14:00	NO	YES	YES	NO	0
14:15	NO	YES	YES	NO	0
14:30	NO	YES	YES	NO	0
14:45	NO	YES	YES	NO	0
15:00	NO	YES	YES	NO	0
15:15	NO	YES	YES	NO	0
15:30	NO	YES	YES	NO	0
15:45	YES	YES	YES	YES	208
16:00	YES	YES	YES	YES	180
16:15	YES	YES	YES	YES	116
16:30	YES	NO	YES	NO	0
16:45	YES	NO	YES	NO	0
17:00	YES	NO	YES	NO	0
17:15	YES	NO	YES	NO	0
17:30	YES	NO	YES	NO	0
17:45	YES	NO	YES	NO	0
18:00	YES	NO	YES	NO	0
18:15	YES	YES	YES	YES	118
18:30	YES	YES	YES	YES	179
18:45	NO	YES	YES	NO	0
19:00	NO	YES	YES	NO	0
19:15	NO	YES	YES	NO	0
19:30	NO	YES	YES	NO	0
19:45	NO	YES	YES	NO	0
20:00	NO	YES	YES	NO	0

REVENUE = \$ 52,031.25

Example of Potential Changes to Northwest HOV Lane Eligibility



Summary

- ✓ There is sufficient room to allow SOVs in off-peak periods
- ✓ There is sufficient travel time savings that SOVs are likely to pay to use the HOT lane (survey data will provide more accurate results)

What does allowing SOVs entail...