



US 50 | **CORRIDOR
ACTION PLAN**



Public Workshop

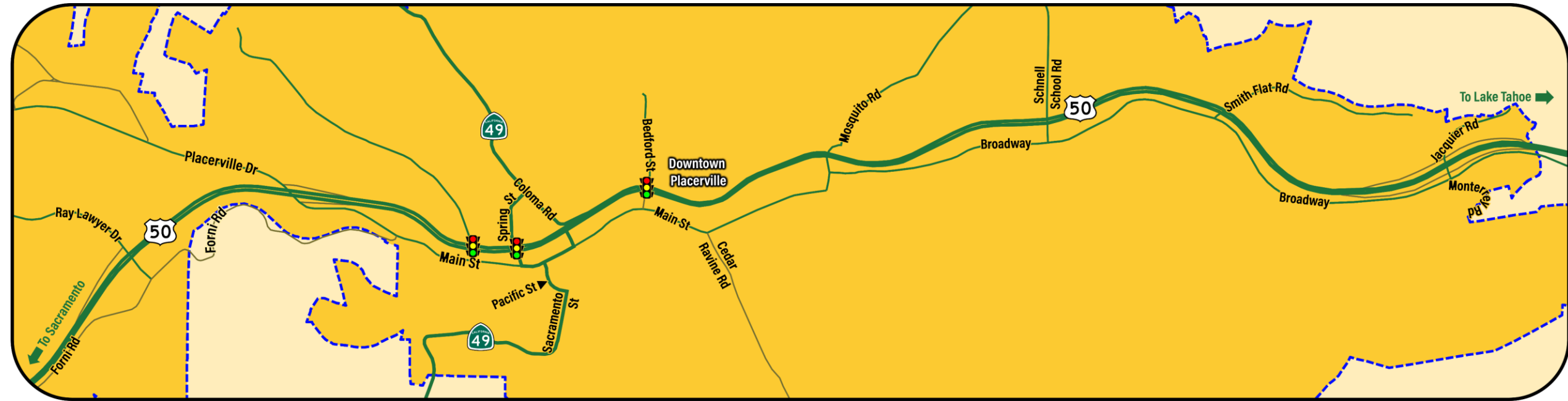
January 19, 2022

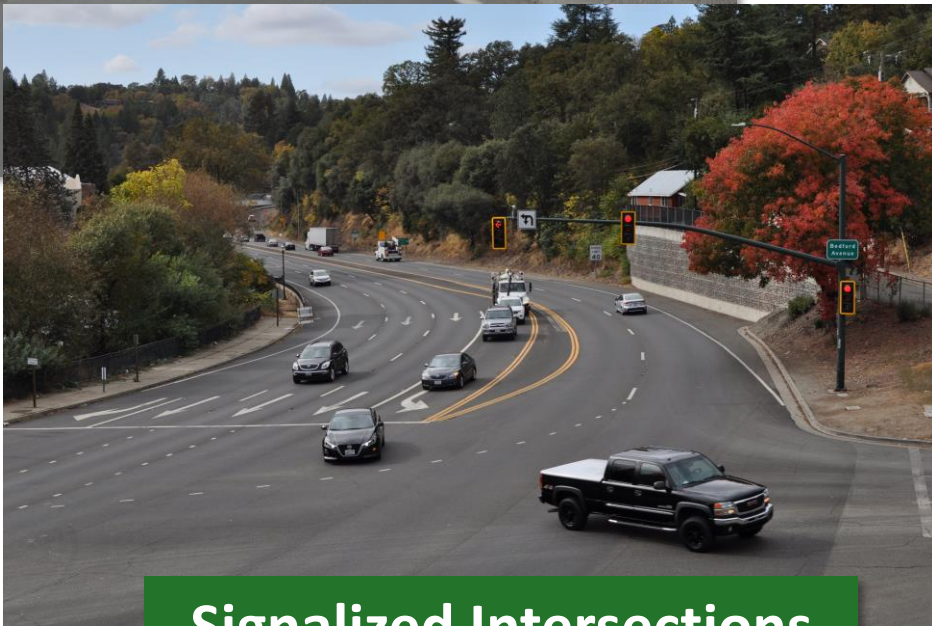


Study Background

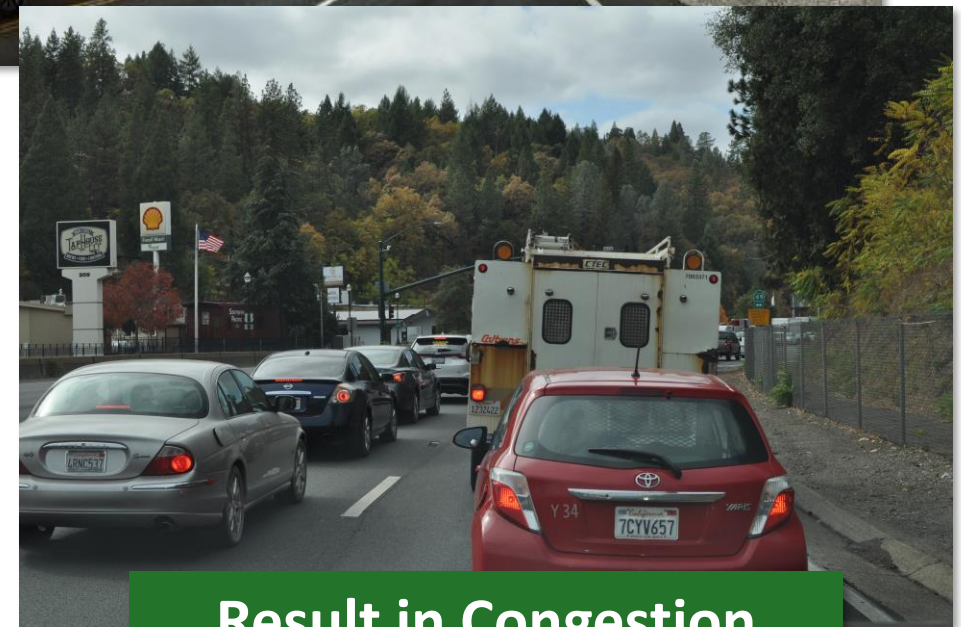


Study Area

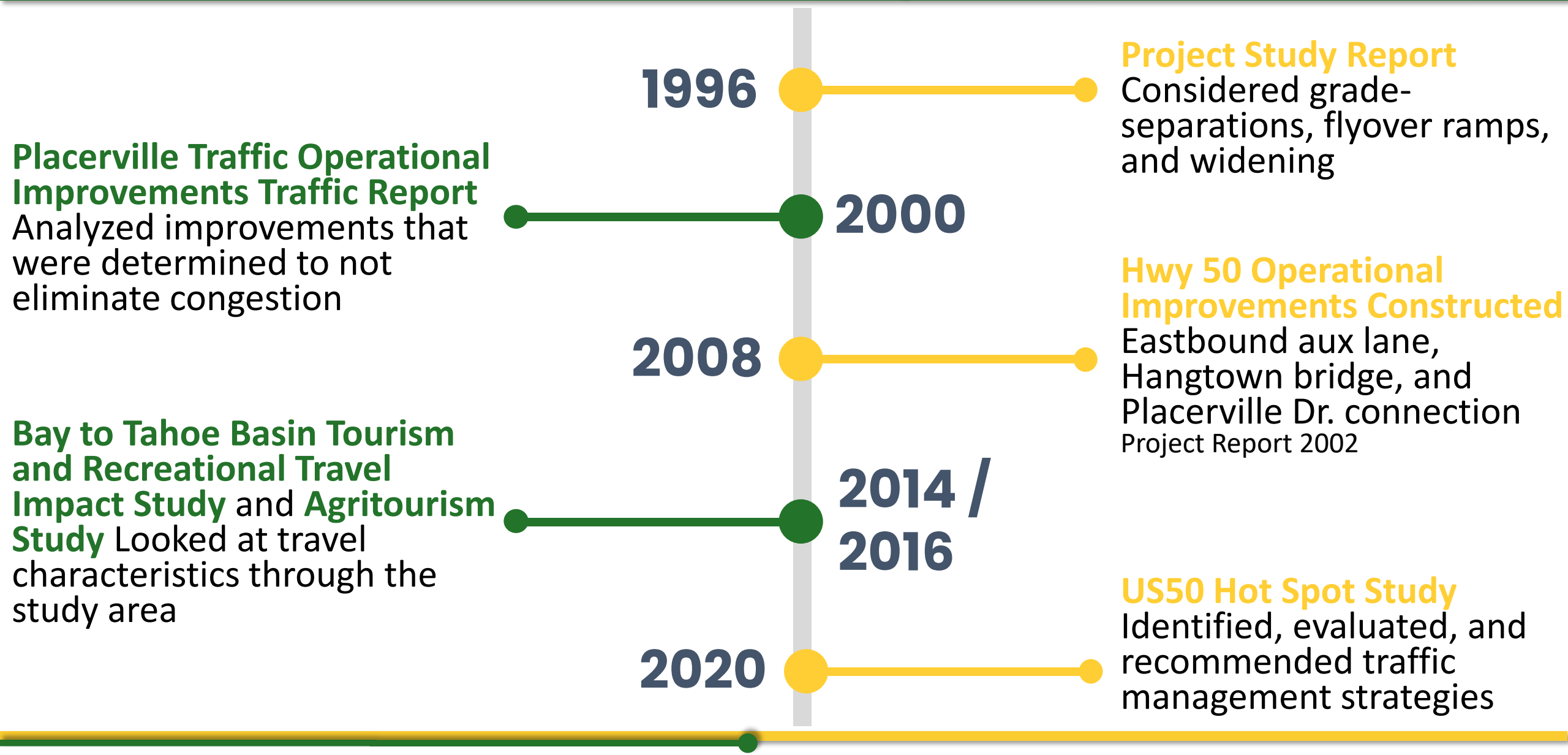




Signalized Intersections



Result in Congestion



Q1 21

Q4 22

 Access Control Plan for US 50 in Placerville

 System User Analysis

 Financing Strategies

 Final Plan

 Public Outreach

Caldor
Fire

Project Development Team (PDT)



Project Development Team Role

- ▶ Collaborate on study processes, findings and recommendations
- ▶ Provide technical input and expertise
- ▶ Coordinate needs, responsibilities and actions within respective organizations
- ▶ Ensure we develop the most effective plan possible for the traveling public



District

3



Traffic and Revenue Analysis Scenarios

OBJECTIVE - Improve travel times through 3 signalized intersections: Canal St., Spring St., and Bedford Ave.

- **Elevated Express Lanes**
 - *Western terminus at Placerville Dr.*
 - *Eastern terminus at Mosquito Rd.*
 - *One lane per direction*
 - *24 hours x 365 days*
- **Trip to Green (Interim)**
 - *12 weekends per year*
 - *Signals set to all green on US 50 all weekend*



Elevated Express Lanes Concept

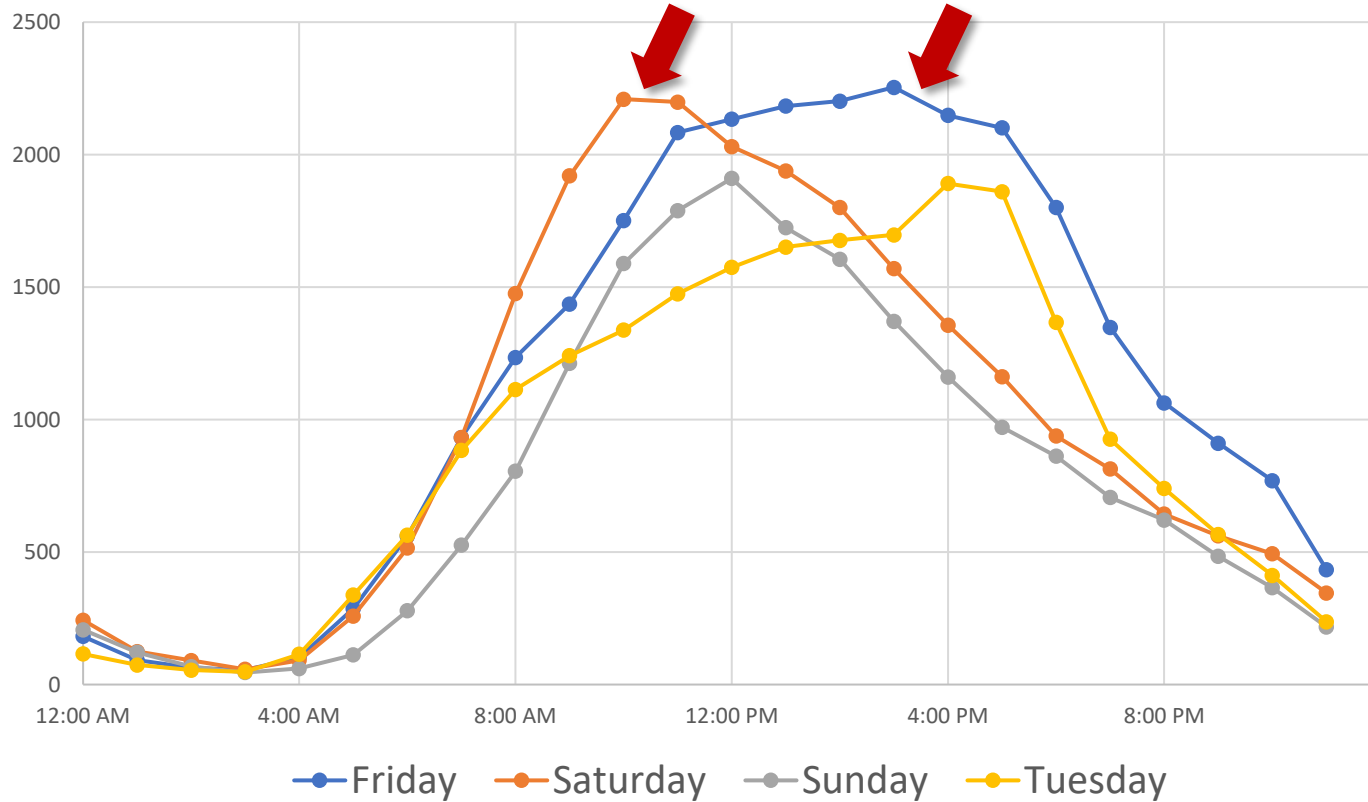


Scenario I

Construct New Elevated Express Lanes

Example Fall 2019 Hourly Volumes

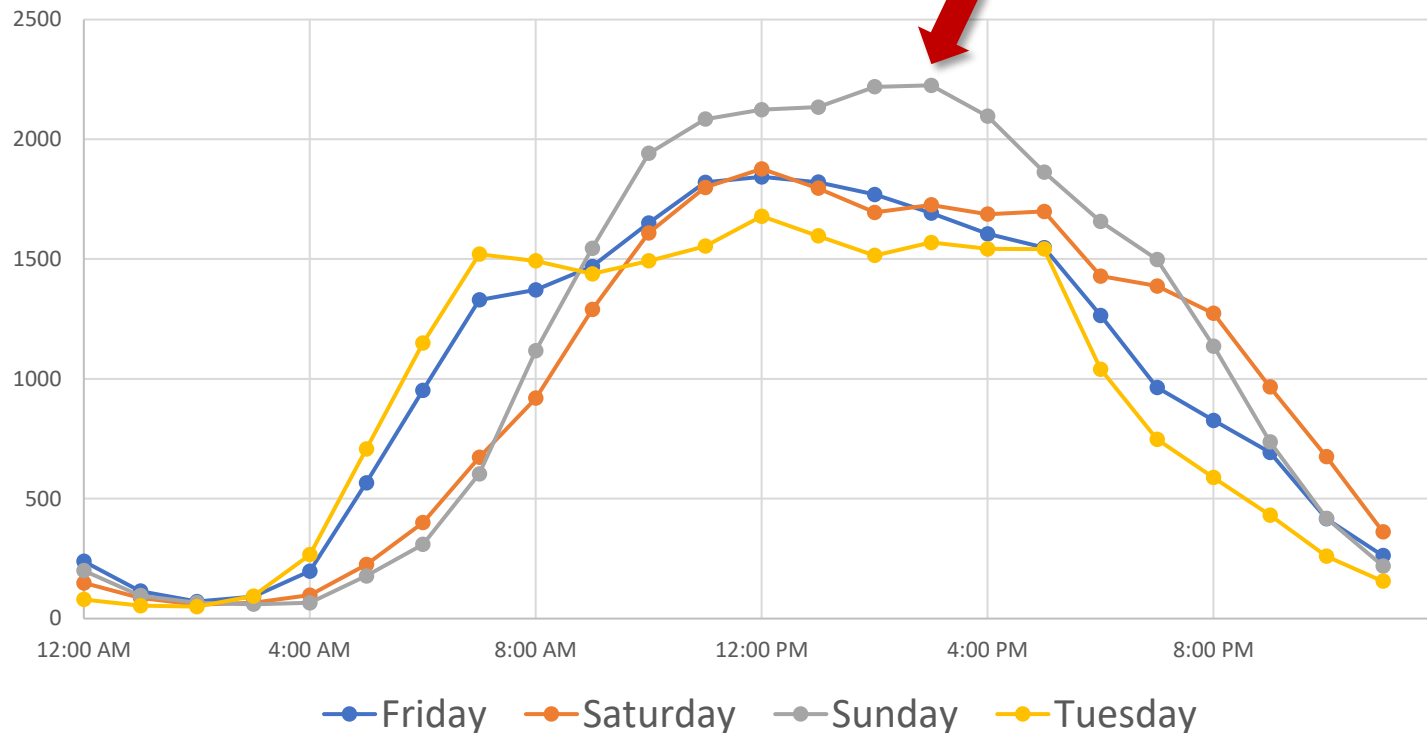
Eastbound-Placerville Dr to Ray Lawyer Dr



- Typical fall eastbound volumes show two peak periods:
 - *Friday afternoon*
 - *Saturday mornings*
- Spreads eastbound volumes out

Example Fall 2019 Hourly Volumes

Westbound-Ray Lawyer Dr to Placerville Dr



- Typical fall westbound volumes show one peak period:
 - *Sunday afternoon*
- Concentrates westbound volumes



Example Eastbound Speeds Fall 2019

Tuesday

Distance	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
POINT VIEW DR 0.50	61	60	60	59	59	62	62	63	62	63	63	62	63	63	64	65	67	67	66	65	65	62	62	62
POINT VIEW DR 0.70	59	59	59	58	57	60	60	62	60	62	61	61	61	62	63	63	64	65	64	63	62	61	60	60
SCHNELL SCHOOL RD 0.45	58	58	57	55	55	59	59	61	60	60	59	59	59	60	61	61	63	63	62	61	60	59	59	58
SCHNELL SCHOOL RD 0.27	50	54	53	52	53	55	56	57	57	57	56	56	56	57	58	58	59	59	58	58	58	58	57	56
MOSQUITO RD 0.13	49	53	53	52	52	54	53	55	54	53	52	53	53	54	54	53	55	54	54	55	55	55	54	55
MOSQUITO RD 0.76	45	45	44	42	43	47	44	42	39	39	35	43	44	44	35	36	35	36	41	41	42	45	47	44
CA-49/SPRING ST 0.14	44	45	43	41	40	38	36	35	30	32	28	33	34	34	29	30	29	30	35	35	37	38	42	41
CA-49/SPRING ST 0.43	45	46	44	42	42	41	42	40	35	36	35	36	36	35	33	31	31	31	39	41	42	43	45	43
PLACERVILLE DR 0.20	58	56	56	55	56	57	58	58	57	58	57	58	58	58	57	58	58	57	58	57	56	57	58	57
PLACERVILLE DR 0.96	59	57	57	56	58	62	65	65	64	64	63	63	64	63	63	64	64	64	64	63	62	62	62	61
FORNI RD 0.21	60	59	61	59	60	63	66	67	66	64	63	63	64	64	63	63	64	64	64	64	63	63	63	63
FORNI RD 0.57	65	65	61	61	62	66	67	67	67	67	66	66	66	67	64	65	67	66	66	65	64	64	65	64
MISSOURI FLAT RD 0.44	65	62	65	63	63	66	69	69	69	67	67	67	68	66	66	67	68	68	67	66	66	65	66	65
MISSOURI FLAT RD 0.61	66	63	65	62	64	67	68	68	67	67	67	67	67	65	66	67	68	67	67	67	67	66	66	66

Friday

Distance	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
POINT VIEW DR 0.50	59	59	59	56	59	63	63	64	63	64	64	63	63	64	65	64	65	65	65	64	63	63	63	62
POINT VIEW DR 0.70	57	57	57	54	57	61	61	62	62	60	61	60	60	62	62	63	62	62	62	61	60	60	60	59
SCHNELL SCHOOL RD 0.45	57	55	55	53	56	59	59	60	60	60	59	59	59	60	60	61	61	61	60	59	59	59	59	59
SCHNELL SCHOOL RD 0.27	52	52	53	50	54	56	57	58	57	57	56	56	56	56	56	57	58	57	57	56	56	57	57	57
MOSQUITO RD 0.13	52	52	53	50	52	55	55	54	53	54	53	53	53	52	53	52	54	53	54	53	53	55	54	54
MOSQUITO RD 0.76	42	43	43	40	44	45	44	42	40	38	38	44	43	42	43	42	43	43	36	36	39	44	44	45
CA-49/SPRING ST 0.14	40	42	40	40	39	37	37	36	32	32	31	33	33	32	33	33	33	33	29	31	34	36	37	40
CA-49/SPRING ST 0.43	43	44	42	40	44	41	44	40	36	34	33	31	32	30	31	27	28	30	32	36	39	41	41	43
PLACERVILLE DR 0.20	58	57	55	55	57	58	58	59	58	58	57	57	56	56	55	57	56	58	57	58	59	58	58	58
PLACERVILLE DR 0.96	60	57	55	56	59	63	64	65	65	64	64	63	63	63	62	64	63	63	63	63	63	63	64	63
FORNI RD 0.21	63	60	59	59	61	64	66	67	66	64	64	63	64	64	64	64	65	65	65	63	63	64	64	64
FORNI RD 0.57	64	64	64	62	64	68	67	68	68	67	67	66	66	67	67	67	67	67	67	67	67	67	67	67
MISSOURI FLAT RD 0.44	65	65	65	64	64	67	69	70	69	68	68	67	67	67	67	67	67	67	67	66	66	67	67	66
MISSOURI FLAT RD 0.61	66	65	64	62	63	69	68	68	68	67	67	67	67	67	67	66	67	67	67	67	68	69	68	67

Saturday

Distance	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
POINT VIEW DR 0.50	61	58	57	60	61	62	62	63	64	63	62	63	62	63	63	64	65	65	65	64	63	63	64	63
POINT VIEW DR 0.70	58	58	56	57	60	59	60	61	61	60	60	60	60	61	61	62	63	62	62	61	60	61	62	60
SCHNELL SCHOOL RD 0.45	57	56	54	55	58	59	59	60	60	59	59	58	58	59	60	61	61	60	60	60	60	60	61	59
SCHNELL SCHOOL RD 0.27	57	54	52	52	55	57	57	58	58	57	56	56	56	57	56	57	58	58	57	57	57	57	58	57
MOSQUITO RD 0.13	55	53	52	52	54	54	54	54	53	52	51	51	51	51	51	52	54	53	52	54	53	54	55	54
MOSQUITO RD 0.76	46	44	42	41	46	48	44	43	42	38	36	42	41	39	42	44	45	45	34	35	41	42	44	46
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CA-49/SPRING ST 0.43	44	43	42	43	47	46	42	40	39	29	24	21	23	24	29	34	35	37	35	34	37	38	37	42
PLACERVILLE DR 0.20	59	59	57	58	59	60	60	61	60	58	46	37	45	51	56	60	60	59	59	58	58	58	58	58
PLACERVILLE DR 0.96	60	60	58	58	60	64	64	66	66	65	57	43	54	59	62	65	65	64	64	63	63	63	64	62
FORNI RD 0.21	61	61	61	61	62	64	64	66	66	65	62	54	62	64	64	65	66	65	64	63	64	63	64	63
FORNI RD 0.57	65	65	65	62	65	67	67	69	70	69	66	62	67	68	68	69	69	68	67	67	66	66	67	66
MISSOURI FLAT RD 0.44	66	66	66	65	65	68	67	70	70	69	67	66	67	68	68	69	69	68	68	66	67	67	67	66
MISSOURI FLAT RD 0.61	66	66	66	64	65	68	67	69	69	68	67	66	67	68	68	69	69	68	68	67	67	67	67	66





Example Westbound Speeds Fall 2019

Tuesday

Distance	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
POINT VIEW DR 0.17	63	63	64	67	68	69	69	70	69	66	66	66	66	65	67	68	68	68	67	66	66	63	63	62
POINT VIEW DR 0.42	61	60	63	66	67	67	67	69	67	65	65	65	65	64	66	66	66	65	65	65	64	62	62	62
SCHNELL SCHOOL RD 0.75	61	59	61	65	67	67	67	68	67	65	64	64	64	64	65	67	66	66	65	64	63	62	62	62
SCHNELL SCHOOL RD 0.47	57	57	60	62	65	64	64	65	64	64	63	64	62	63	63	63	63	62	62	60	59	59	59	59
MOSQUITO RD 0.27	53	54	54	58	59	60	59	60	58	59	58	59	58	58	59	53	53	58	58	56	55	54	54	55
MOSQUITO RD 0.13	50	51	51	54	57	56	56	56	53	53	53	53	53	52	52	43	44	52	54	53	53	51	53	53
CA-49/SPRING ST 0.69	44	45	44	47	49	47	44	35	28	32	35	36	36	34	23	17	19	25	39	41	42	42	41	42
CA-49/SPRING ST 0.24	41	43	40	45	49	42	31	18	14	18	24	28	28	24	16	14	13	15	28	33	36	34	37	40
PLACERVILLE DR 0.43	46	44	43	48	52	52	49	44	43	42	43	45	46	43	42	43	42	47	48	48	44	45	47	47
PLACERVILLE DR 0.17	58	58	59	59	61	64	62	62	61	60	59	59	59	58	59	61	60	60	60	59	61	59	59	58
FORNI RD 0.97	61	59	60	62	65	68	67	68	67	65	64	64	64	63	64	65	65	64	64	65	64	63	63	61
FORNI RD 0.43	64	63	65	66	69	71	70	70	70	68	68	67	68	67	68	70	70	68	68	67	66	66	66	65
MISSOURI FLAT RD 0.42	63	62	63	65	67	69	68	68	68	68	67	66	66	66	66	67	67	66	65	64	65	63	64	63
MISSOURI FLAT RD 0.48	65	64	65	66	69	70	70	69	69	68	67	65	66	66	67	68	67	67	67	66	67	65	66	65

Saturday

Distance	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
POINT VIEW DR 0.17	64	63	60	64	65	65	66	69	68	68	69	67	68	66	66	66	66	66	67	66	65	65	66	66
POINT VIEW DR 0.42	63	62	59	63	65	65	65	67	67	67	68	66	67	66	66	66	65	65	66	65	65	64	65	66
SCHNELL SCHOOL RD 0.75	65	62	60	64	65	64	64	66	66	67	67	66	67	66	66	64	62	59	63	64	63	63	63	62
SCHNELL SCHOOL RD 0.47	62	61	57	61	62	63	62	65	65	64	65	65	64	63	62	46	37	30	49	63	62	62	60	60
MOSQUITO RD 0.27	59	58	52	55	58	58	57	60	60	60	60	59	58	51	49	30	20	18	39	56	57	57	56	57
MOSQUITO RD 0.13	56	57	50	51	52	55	54	55	55	54	54	51	43	39	23	15	15	32	52	53	53	53	52	
CA-49/SPRING ST 0.69	43	43	41	43	44	48	45	44	41	40	39	37	31	24	22	11	8	9	19	36	41	41	41	42
CA-49/SPRING ST 0.24	39	42	40	42	45	44	38	30	24	24	27	28	23	19	18	15	14	13	18	29	34	35	33	36
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FORNI RD 0.43	66	63	64	65	65	69	69	69	69	70	69	69	69	69	69	69	69	68	69	67	68	67	66	66
MISSOURI FLAT RD 0.42	63	62	60	63	62	65	67	67	68	68	67	67	67	67	67	67	67	66	66	65	65	64	63	64
MISSOURI FLAT RD 0.48	65	63	62	64	64	67	67	68	68	69	68	68	68	67	67	67	67	66	67	66	66	66	65	65

Sunday

Distance	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
POINT VIEW DR 0.17	64	64	62	64	63	62	62	67	68	69	68	68	66	67	65	65	66	66	67	68	67	66	65	62
POINT VIEW DR 0.42	63	64	62	63	62	62	62	66	67	68	67	67	66	66	62	61	65	65	66	67	66	64	64	60
SCHNELL SCHOOL RD 0.75	62	62	61	63	62	59	62	65	66	67	67	67	65	58	51	49	49	55	64	66	65	63	63	61
SCHNELL SCHOOL RD 0.47	60	60	58	59	58	56	60	63	64	66	65	64	53	36	38	37	35	37	56	63	63	62	61	60
MOSQUITO RD 0.27	56	56	53	55	54	51	55	58	60	60	60	57	38	24	26	30	29	30	50	59	58	57	56	55
MOSQUITO RD 0.13	53	54	50	51	51	50	51	55	55	56	55	50	29	20	22	26	25	27	44	55	53	53	53	
CA-49/SPRING ST 0.69	43	42	42	44	44	46	44	45	44	40	39	29	15	11	15	15	15	18	31	40	44	45	45	
CA-49/SPRING ST 0.24	39	40	41	44	43	47	38	38	37	29	30	21	18	17	19	18	19	20	27	33	35	36	40	40
PLACERVILLE DR 0.43	45	44	43	47	47	52	48	49	49	47	46	43	42	42	43	43	43	42	46	46	47	47	47	45
PLACERVILLE DR 0.17	58	57	56	58	60	63	61	63	62	62	61	60	60	60	60	60	60	60	60	60	60	61	59	59
FORNI RD 0.97	62	60	58	60	62	66	65	66	66	66	66	65	64	64	64	64	63	63	64	65	65	64	62	61
FORNI RD 0.43	67	65	64	66	66	67	68	69	70	70	70	69	69	69	69	69	69	68	68	68	68	68	66	64
MISSOURI FLAT RD 0.42	64	63	63	65	65	65	67	67	68	69	69	67	67	67	67	67	67	66	66	66	66	65	65	62
MISSOURI FLAT RD 0.48	66	64	64	66	66	66	67	67	68	69	69	68	67	67	67	67	67	66	66	67	67	66	66	64



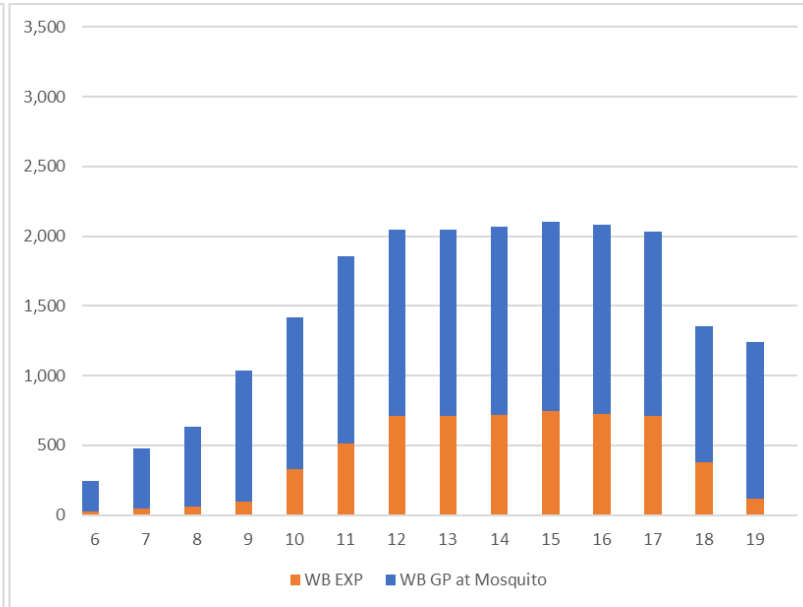
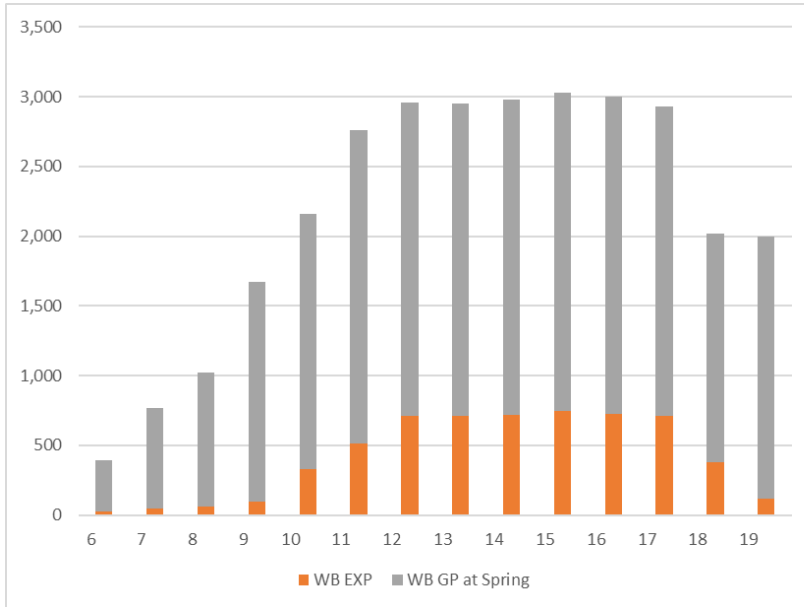
Congestion AND Safety Concern

Overall Methodology (Sketch-Level)

- Create hourly traffic profile for trips using the corridor
- Use data to estimate travel time savings
- Estimate traffic and toll revenue (sketch-level) considering:
 - *Traffic eligible to use the lanes (through traffic)*
 - *Value of time (estimated using income levels)*
 - *Future traffic growth*
- Assume in operation 24 hours/day, 365 days/year



Gross Revenue for Elevated Express Lane



- **Elevated express lanes usage ~25%-35% of total corridor volume at peak period toll rates of \$1.00-\$1.75/\$0.50 off peak**
- **Annual gross revenue \$1.4 million in 2025 (2021\$)**

	Transactions	Revenue
2025	2,004,000	\$1,369,000
2026	2,013,000	\$1,392,000
2027	2,022,000	\$1,414,000
2028	2,031,000	\$1,436,000
2029	2,040,000	\$1,458,000
2030	2,049,000	\$1,480,000
2031	2,058,000	\$1,503,000
2032	2,067,000	\$1,525,000
2033	2,076,000	\$1,547,000
2034	2,085,000	\$1,569,000
2035	2,094,000	\$1,591,000
2036	2,103,000	\$1,613,000
2037	2,112,000	\$1,636,000
2038	2,121,000	\$1,658,000
2039	2,130,000	\$1,680,000
2040	2,139,000	\$1,702,000
2041	2,148,000	\$1,724,000
2042	2,157,000	\$1,747,000
2043	2,167,000	\$1,769,000
2044	2,176,000	\$1,791,000
2045	2,185,000	\$1,813,000
Total	43,977,000	\$33,417,000



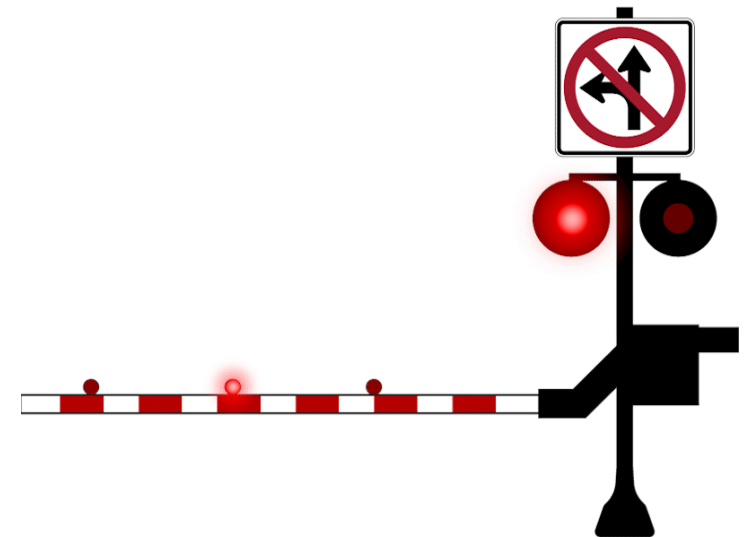
Scenario 2

Select Trip to Green Implementation



Overall Methodology (Sketch-Level)

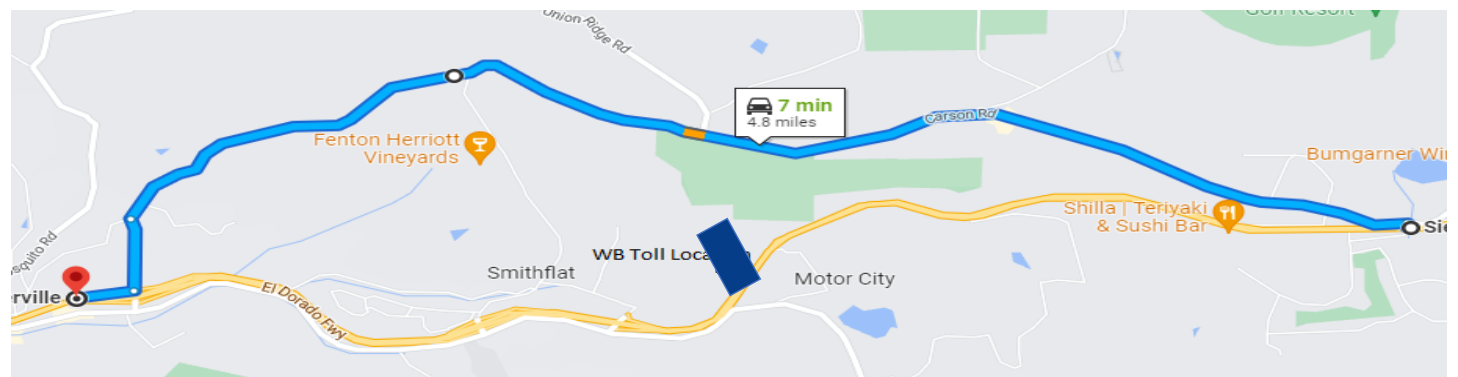
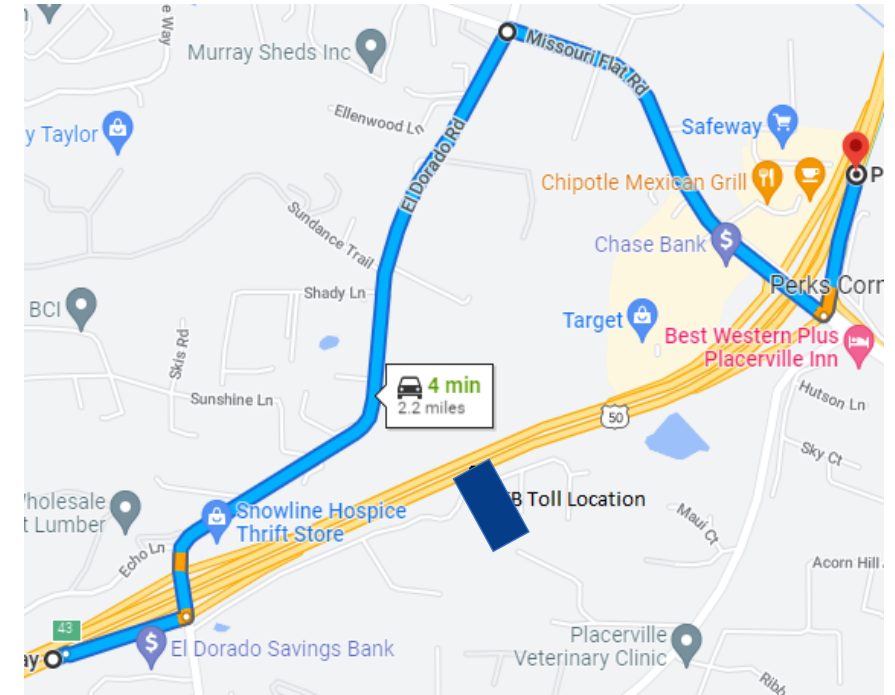
- Create traffic profile for trips during 5 holiday periods and 7 typical Fall weekends
 - *Memorial Day (4 days)*
 - *July Fourth (4 days)*
 - *Labor Day (4 days)*
 - *Thanksgiving (3 days)*
 - *Christmas/New Year's Day (3 days)*
- Signals on US50 held to green with other infrastructure (e.g. ITS, barriers, etc.)
- Approximate traffic diversion to alternate routes under range of potential toll rates
- Estimate traffic and toll revenue (sketch-level)



Sketch-Level Traffic & Revenue

Gantry locations set to minimize potential for diversion/bypass

- Eastbound Between El Dorado Rd and Missouri Flat Rd
- Westbound East of Point View Drive



Toll Revenue for Trip to Green

- **Assumptions**
 - *Local residents exempt (10% of traffic at Point View Dr.)*
 - *Tolling for 12 weekends: 5 holiday weekends and 7 “typical” Fall weekends*
- **Toll amount: \$1.00-\$3.00**
- **Annual Gross Revenue: \$620,000-\$1,800,000 (2021\$) at current year levels, depending on toll rates charged**



Scenario 1: Elevated Express Lanes

- **Cost Range: \$200M-\$300M**
- **Annual Gross Revenue:
\$1.3M-\$1.8M**



Scenario 2: Select Trip to Green

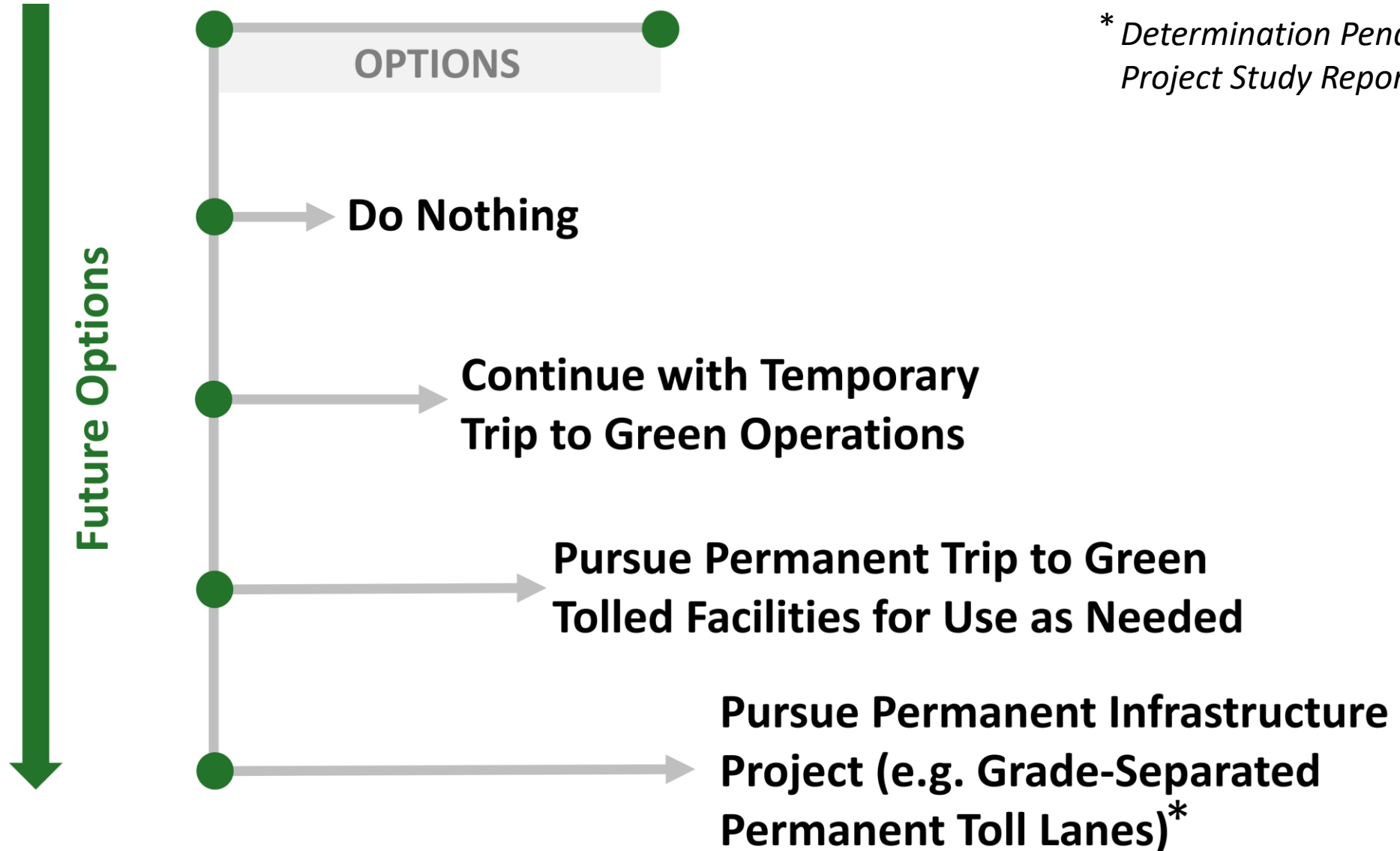
- **Cost Range: \$16+ million**
- **Annual Gross Revenue:
\$620k-\$1.8M**



Next Steps



Next Step Options



** Determination Pending Future Project Study Report Results*

Description

Do nothing more
and keep U.S. 50
as it is today

Pros 👍

- Requires no new or ongoing investment

Cons 👎

- Continued or worsening traffic congestion on peak weekends and holidays
- Does not aid in evacuations
- Safety concerns with major differences in U.S. 50 speeds
- Continued traffic diverting through downtown when U.S. 50 is congested due to google, waze, and mapping applications

Potential Cost: None

Potential Timeframe: None

Description

Continue temporary Trip to Green operations as needed, similar to the 2022 trial roll out

Pros 👍

- Temporary relief from seasonal recreation and holiday travel
- Low cost compared to permanent infrastructure
- Time and date adjustments can be made to mitigate peak traffic impacts

Cons 👎

- Setup and take down requires labor and equipment being available
- Labor availability limits ability to adjust to conditions quickly
- Safety concerns over field staff being exposed to traffic during setup and takedown
- Need to identify ongoing funding for operations

Potential Cost: \$200k-\$500k per Year

Potential Timeframe: 0-3 Years

Description

Install permanent, tolled, and automated Trip to Green infrastructure to deploy as needed during peak periods

Pros 👍

- Ability to quickly deploy based on traffic conditions or during evacuations
- Opportunity to toll to help pay for required infrastructure
- Little labor required, improving flexibility and reliability
- Minor infrastructure required (e.g. gates and dynamic signs)

Cons 👎

- Tolling requires additional studies and approvals
- Detailing toll exemption for local residents may be a challenge
- Potential for some traffic to divert to local roads to avoid toll

Potential Cost: \$16+ million

Potential Timeframe: 3-5 Years

Voting Option: Pursue Permanent Tolled Infrastructure

Description

Design and construct major, permanent tolled infrastructure such as elevated express lanes

Pros 👍

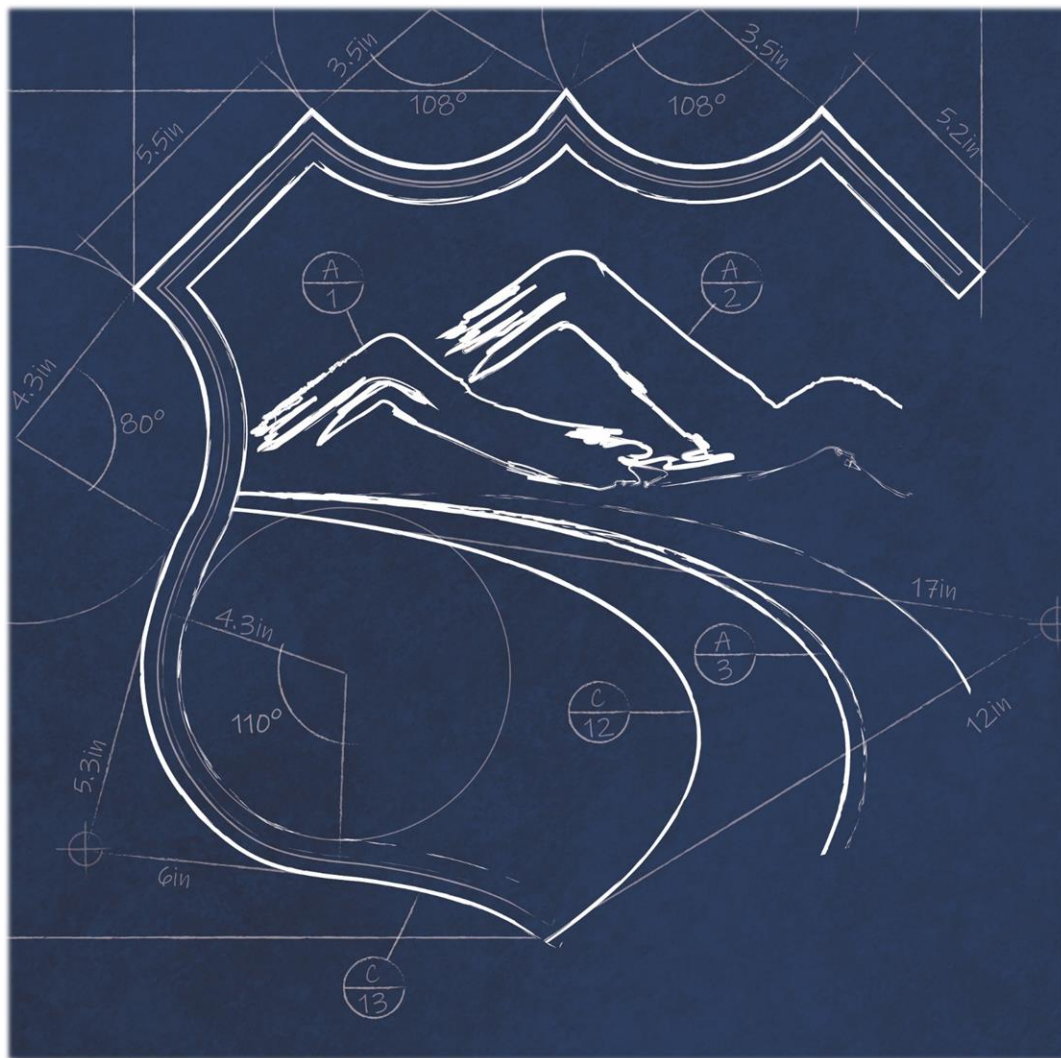
- Continuously available, does not require deployment
- Opportunity to toll to offset small portion of costs associated with permanent infrastructure
- No labor required, maximizing reliability

Cons 👎

- Large, expensive infrastructure required
- Tolling likely to only cover a small fraction of the construction cost
- Tolling requires additional studies and approvals
- Visual impacts and conflicts with ped bridges from elevated options
- Heavy infrastructure funding limited under current state and federal guidelines

Potential Cost: \$200-\$300 million

Potential Timeframe: 20+ Years



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