LODI CITY COUNCIL

Carnegie Forum
305 West Pine Street, Lodi

"SHIRTSLEEVE" SESSION
Date: November 5, 2013
Time: 7:00 a.m.

For information regarding this Agenda please contact:
Randi Johl-Olson
City Clerk
Telephone: (209) 333-6702

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Informal Informational Meeting

A. Roll Call by City Clerk

B. Topic(s)

B-1 Receive Information on the San Joaquin Council of Governments State Route 99 Lodi Operational Improvements Feasibility Study (PW)

C. Comments by Public on Non-Agenda Items

D. Adjournment

Pursuant to Section 54954.2(a) of the Government Code of the State of California, this agenda was posted at least 72 hours in advance of the scheduled meeting at a public place freely accessible to the public 24 hours a day.

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Randi Johl-Olson
City Clerk

AGENDA ITEM B-01

CITY OF LODI
COUNCIL COMMUNICATION

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AGENDA TITLE: Receive Information on the San Joaquin Council of Governments State Route 99 Lodi Operational Improvements Feasibility Study

MEETING DATE: November 5, 2013 (Shirtsleeve Session)

PREPARED BY: Public Works Director

RECOMMENDED ACTION: Receive information on the San Joaquin Council of Governments State Route 99 Lodi Operational Improvements Feasibility Study.

BACKGROUND INFORMATION: In early 2013, the San Joaquin Council of Governments (SJCOG) commissioned Dokken Engineering to perform the State Route 99 Lodi Operational Improvements Feasibility Study. The purpose of the study is to evaluate current operations of State Route 99 between Armstrong Road and Turner Road and identify a series of short-term projects that could be implemented to improve safety and/or enhance operations of the State Route 99 corridor through the City.

The purpose of this presentation is to provide an overview of the feasibility study, examine various alternatives considered, and to obtain Council feedback on those alternatives.

FISCAL IMPACT: Not applicable.

FUNDING AVAILABLE: Not applicable.

F. Wally Sandelin
Public Works Director

Prepared by Charles E. Swimley, Jr., City Engineer/Deputy Public Works Director

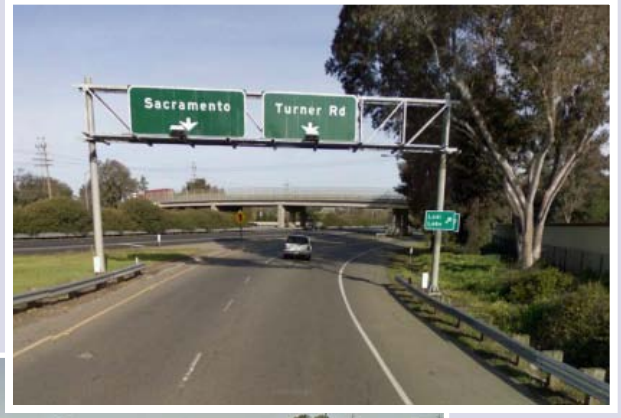
FWS/CES/pmf

APPROVED: _____
Konradt Bartlam, City Manager

Shirtsleeve Session Presentation

PRESENTED TO:

STATE ROUTE 99
LODI OPERATIONAL IMPROVEMENTS
FEASIBILITY STUDY



PROJECT SPONSOR:

PRESENTED BY:

DOKKEN ENGINEERING

November 5, 2013

BACKGROUND AND PURPOSE

SR 99 CORRIDOR CHARACTERISTICS

- 22 on- and off-ramps within 3.5 miles
- Closely spaced on- and off-ramps
- Non-standard ramp geometrics
  - Limited sight distance
  - Steep grades
  - Tight curves
  - Short acceleration and deceleration lengths
  - Short merging distances onto mainline
- Multiple weaving movements on ramps
- High truck percentage

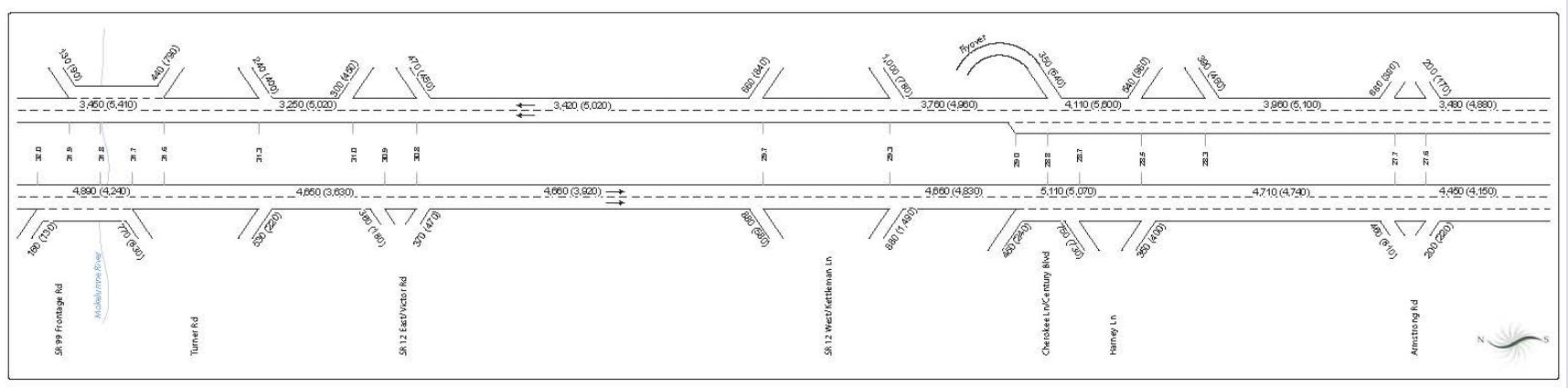
FEASIBILITY STUDY

- Purpose, identify short and long term improvement projects
- Improvement project should:
  - Improve operations
  - Improve safety
- Short term projects to be constructed within the next 5 years
- Review available data
  - Traffic volumes
  - Collision data
- Develop comparison criteria

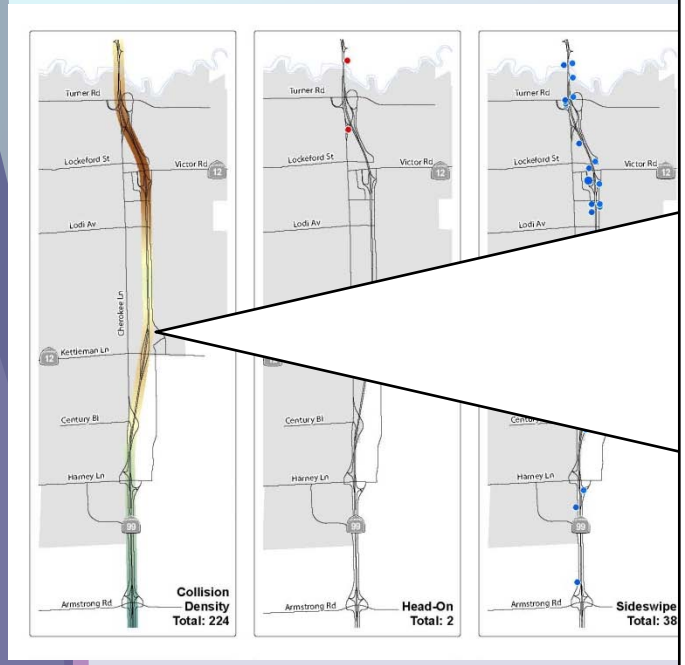
STUDY FINDINGS

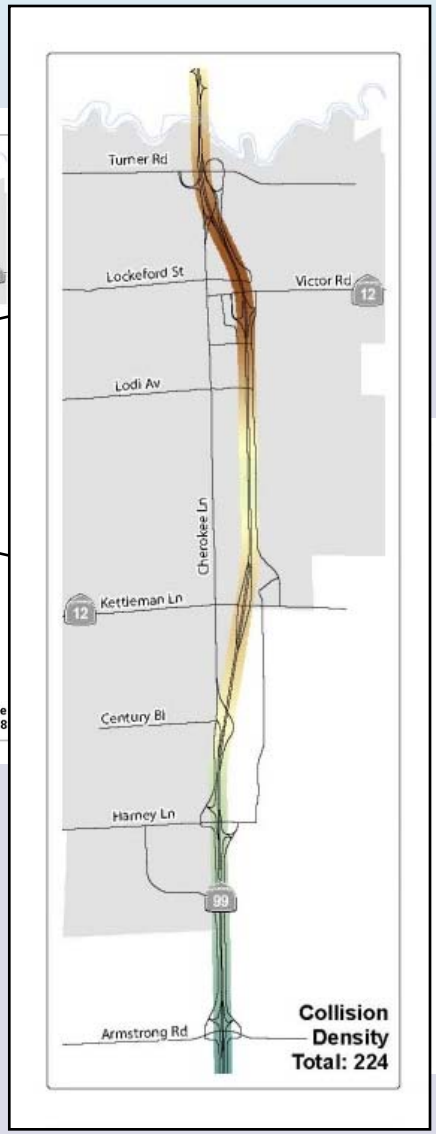
TRAFFIC OPERATIONS

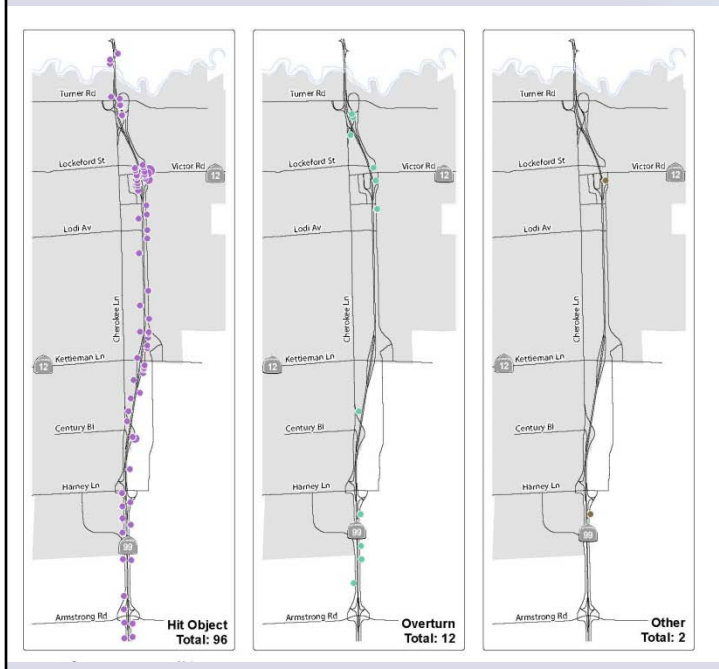
- Speeds generally above 65 mph throughout corridor
- Minor pockets of slowdowns caused by merging traffic from the ramps
- Traffic volumes (Existing and Forecasted)



MAINLINE COLLISION DATA







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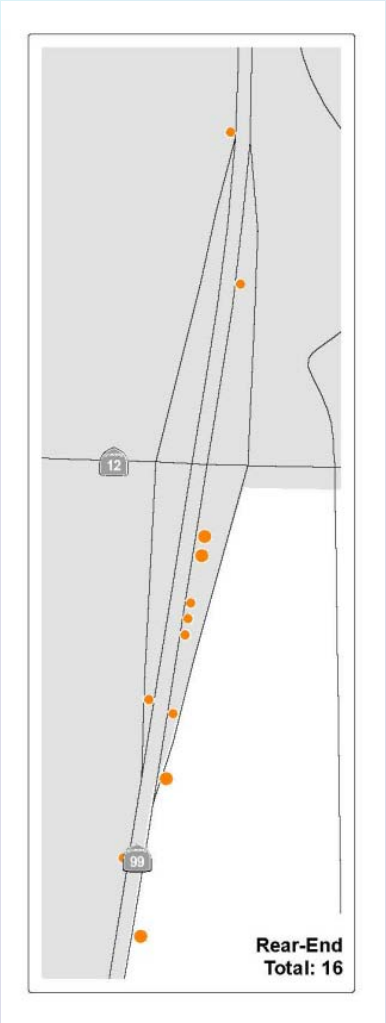
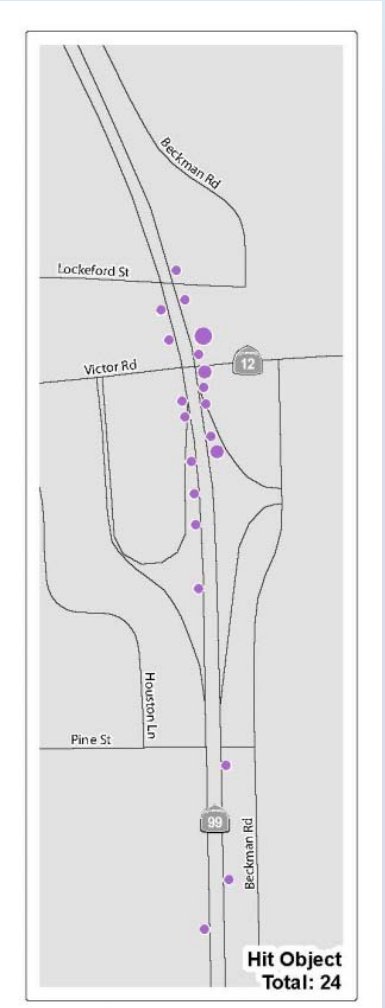
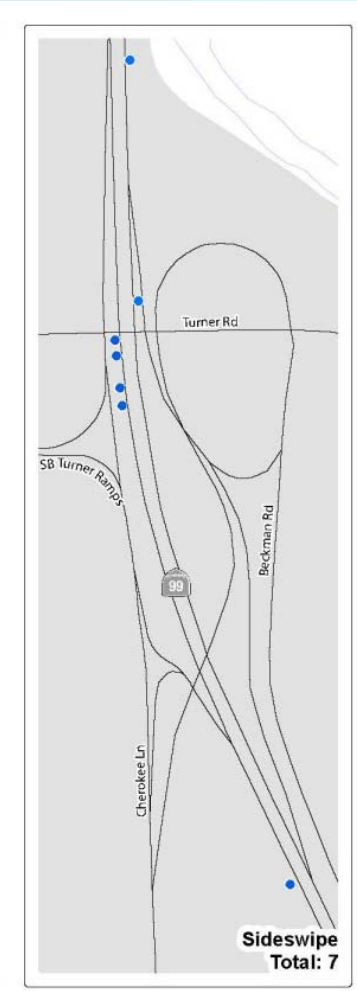


Kettleman Lane

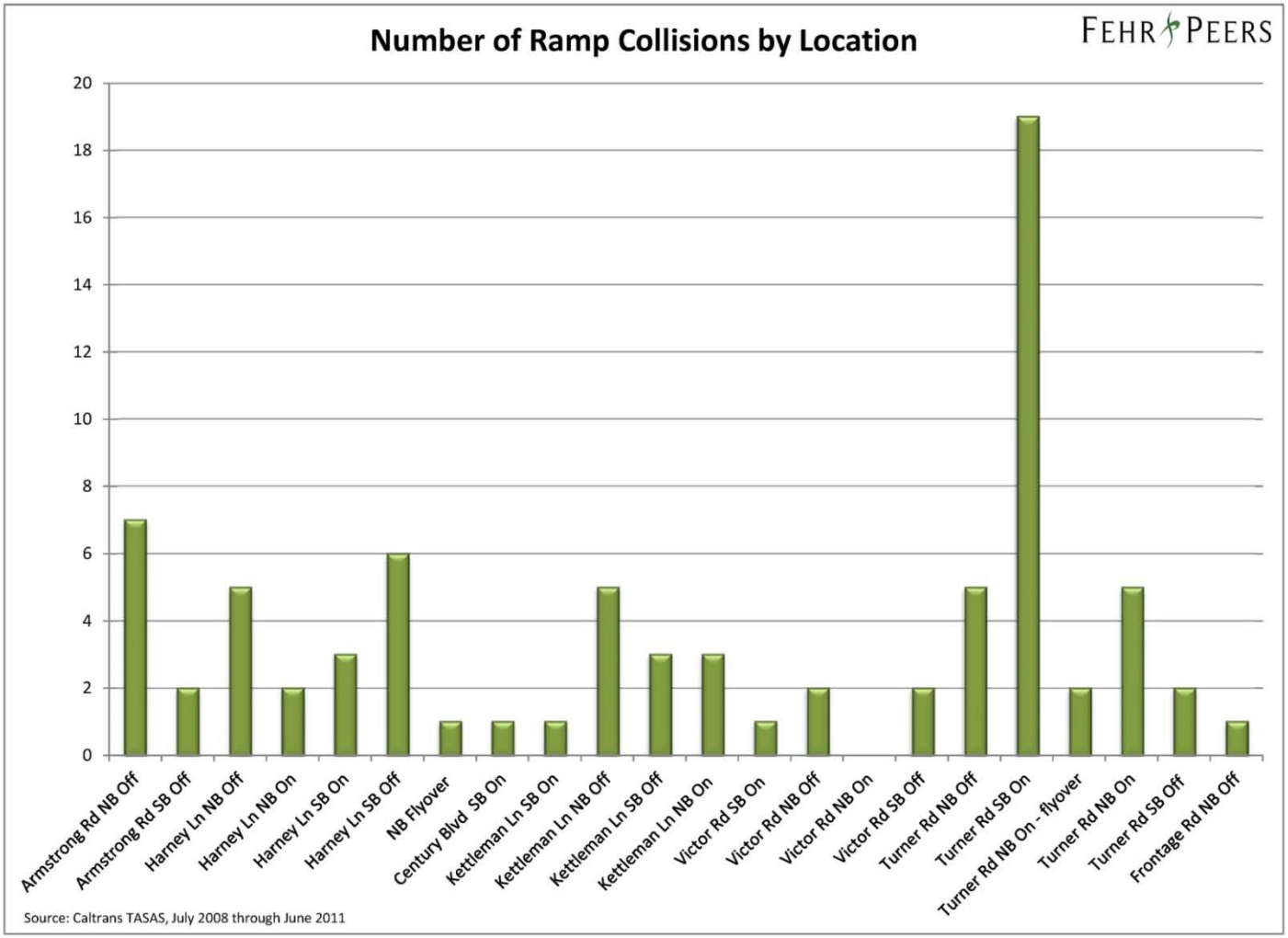


Victor Road



Turner Road

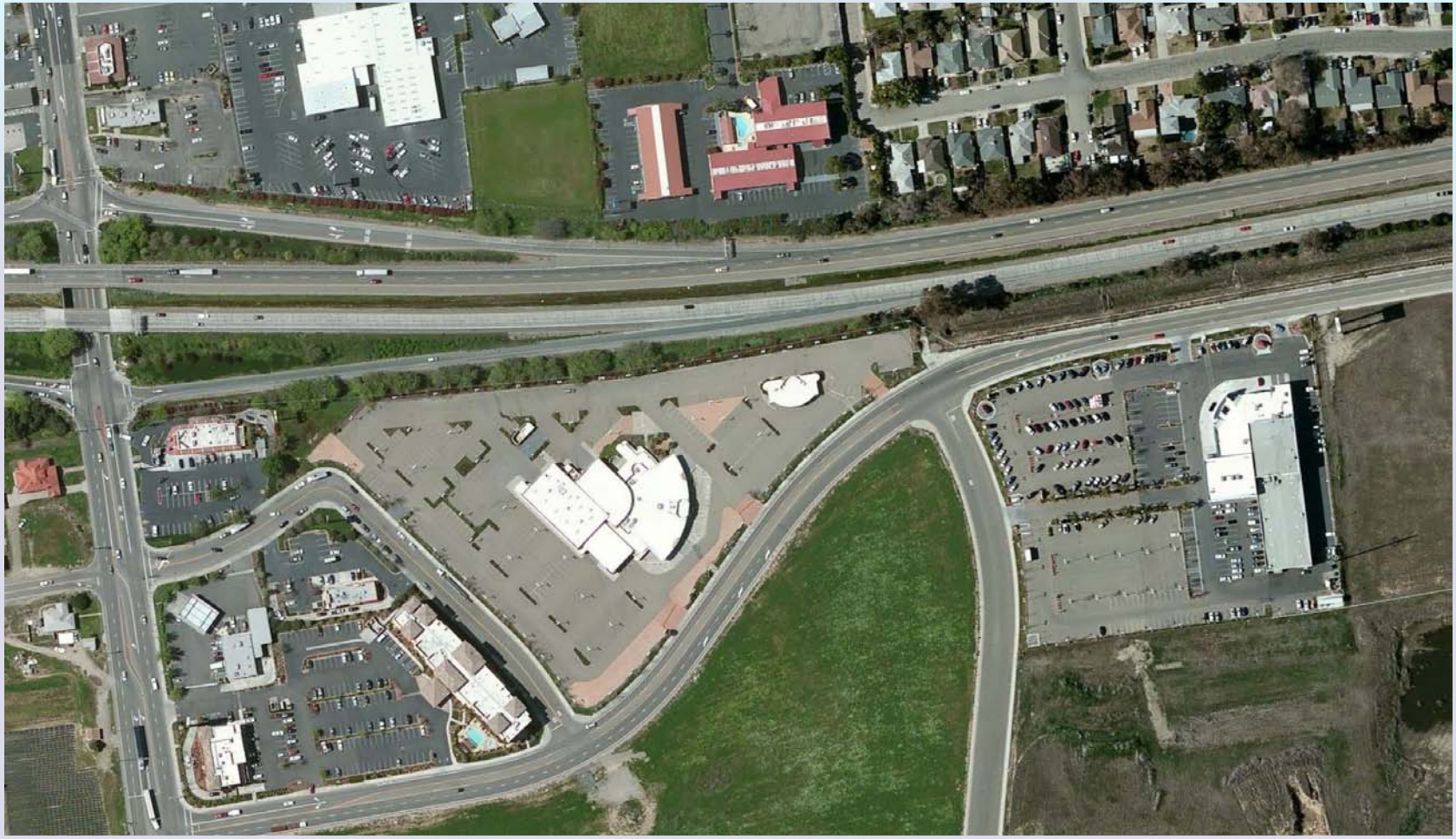
RAMP COLLISION DATA



South → North

PROJECT
"HOT SPOTS"

NB KETTLEMAN LANE ON-RAMP



NB VICTOR ROAD ON-RAMP


1


2


3


4


5

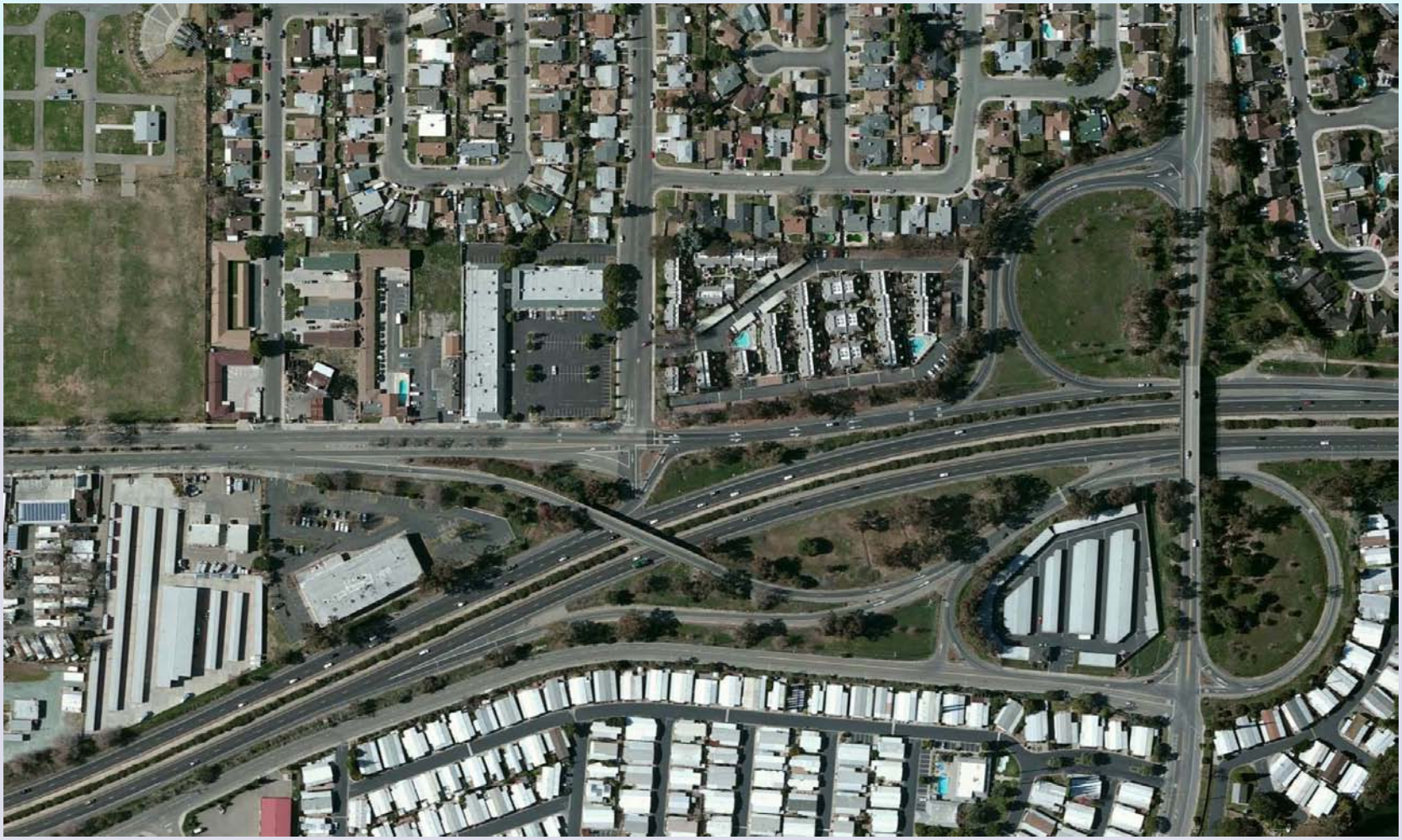

6


7


8


9

SB TURNER ROAD ON-RAMP




1
FREEWAY ENTRANCE
99
SOUTH
STOP


2
FREEWAY ENTRANCE
99
ONE WAY


3
ONE WAY


4
FUTURE RAMP
DRIVER PERSPECTIVE

RECOMMENDED ALTERNATIVES

NB KETTLEMAN LANE ON-RAMP ALTERNATIVE 1

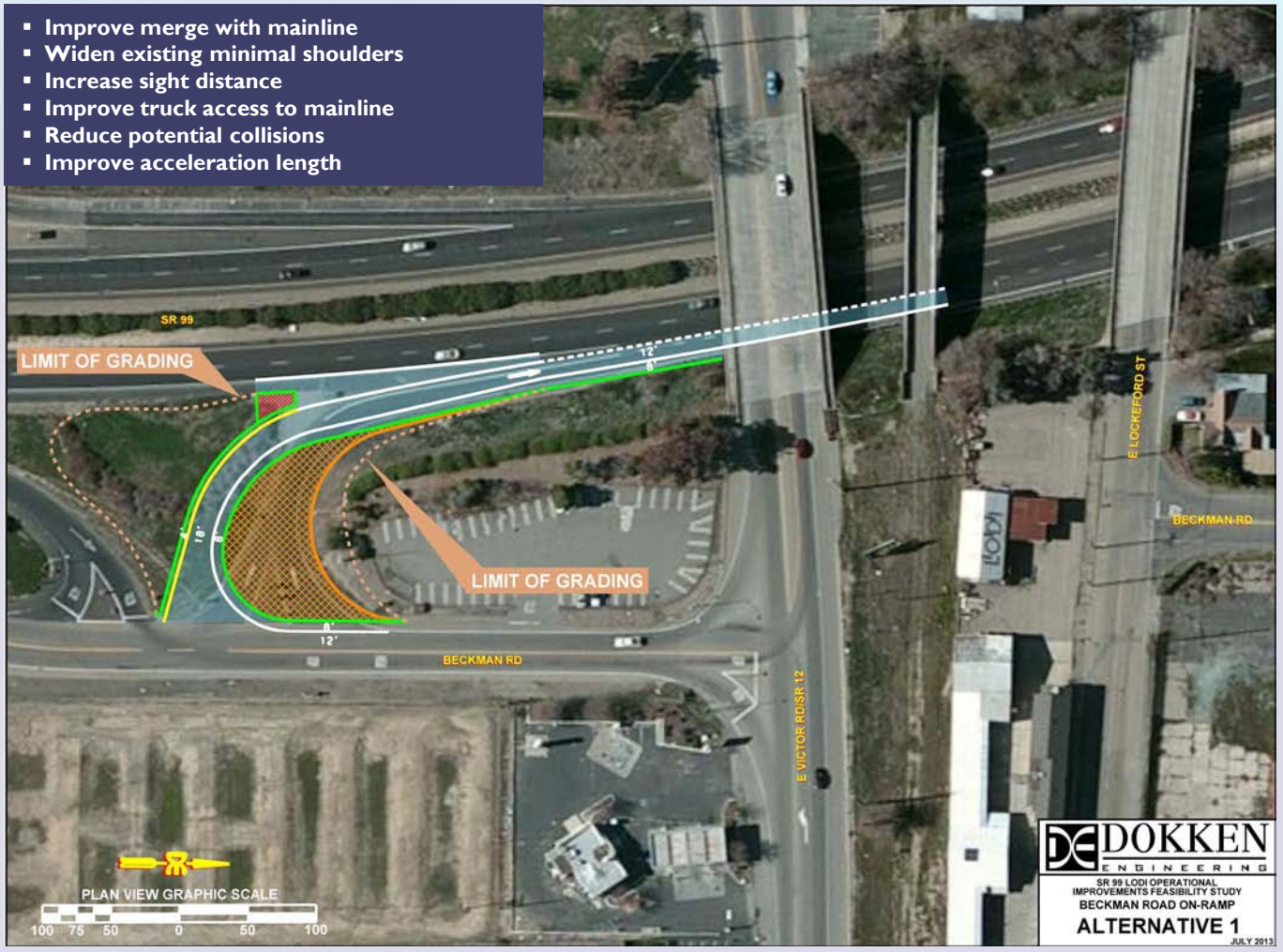
Construct Auxiliary Lane

- Increase merge distance
- Reduce potential mainline collisions caused by merge
- Increase acceleration length
- Can be incorporated into mainline ultimate widening

NB VICTOR ROAD ON-RAMP ALTERNATIVE 1

Realign On-Ramp

- Improve merge with mainline
- Widen existing minimal shoulders
- Increase sight distance
- Improve truck access to mainline
- Reduce potential collisions
- Improve acceleration length



NB VICTOR ROAD ON-RAMP ALTERNATIVE 2

Construct Auxiliary Lane Between Victor Road and Turner Road

- Improve traffic operations
- Increase merging distance
- Increase weave distance
- Improve acceleration/deceleration length
- Can be incorporated into mainline ultimate widening

SB TURNER ROAD ON-RAMP ALTERNATIVE 1

Realign Intersection

- Improve merge with mainline
- Increase sight distance
- Reduce potential collisions at the intersection and on the ramp
- Improve traffic operations
- Improve acceleration length
- Maintain access to Cherokee Lane

SB TURNER ROAD ON-RAMP ALTERNATIVE 2

Shift Intersection North/Stop Controlled at Weave

- Improve merge with mainline
- Increase sight distance
- Eliminate weaving movement between on/off-ramp traffic
- Reduce potential collisions
- Improve acceleration length
- Maintain access to Cherokee Lane

SB TURNER ROAD ON-RAMP ALTERNATIVE 4

Roundabout

- Improve merge with mainline
- Increase sight distance
- Improve acceleration length
- Reduce potential collisions at the intersection and on the ramp
- Eliminate weaving movement between on/off-ramp traffic
- Ability to create a gateway feature for the City within roundabout
- Maintain access to Cherokee Lane

SB TURNER ROAD ON-RAMP ALTERNATIVE 5

On-Ramp Overcrossing

- Improve merge with mainline
- Increase sight distance
- Improve acceleration length
- Reduce potential collisions at the intersection and on the ramp
- Eliminate weaving movement between on/off-ramp traffic
- Ability to create a gateway feature for the City
- Maintain access to Cherokee Lane

ALTERNATIVES COMPARISON

ALTERNATIVES COMPARISON

DESIGN FEATURES	NORTHBOUND VICTOR ROAD ON-RAMP		SOUTHBOUND TURNER ROAD/CHEROKEE LANE				NB KETTLEMAN LANE ON-RAMP
	Alt 1	Alt 2	Alt 1	Alt 2	Alt 4	Alt 5	Alt 1
	Realign On-ramp	Construct Aux Lane	Realign Intersection	Shift Intx N / Stop Controlled at Weave	Roundabout	On-ramp Over-crossing	Construct Aux Lane
Improved Safety	✓✓	✓	✓	✓✓	✓✓✓	✓✓	✓✓
Improved Traffic Operations	✓	✓	✓✓		✓✓	✓✓	
Minimize Future Throw-away Improvements	✓✓	✓	✓	✓	✓	✓	✓
Minimize Environmental Impacts	✓	✓	✓✓	✓	✓✓		✓
Minimize Community Impacts	✓	✓	✓✓		✓✓		✓
Encroachment Permit/Streamlined Oversight	✓✓✓	✓	✓✓✓	✓	✓		✓
Meets Short-term Objectives	✓✓	✓	✓✓✓	✓✓	✓✓		✓✓
TOTAL ✓'S	**12**	**7**	**14**	**7**	**13**	**5**	**8**

✓ Minimally meets objectives
✓✓ Meets objectives
✓✓✓ Significantly meets objectives

ALTERNATIVES COMPARISON

DESIGN FEATURES	NORTHBOUND VICTOR ROAD ON-RAMP		SOUTHBOUND TURNER ROAD/CHEROKEE LANE				NB KETTLEMAN LANE ON-RAMP
	Alt 1	Alt 2	Alt 1	Alt 2	Alt 4	Alt 5	Alt 1
	Realign On-ramp	Construct Aux Lane	Realign Intersection	Shift Intx N / Stop Controlled at Weave	Roundabout	On-ramp Over-crossing	Construct Aux Lane
Project Delivery Period	12 mo	18-24 mo	12 mo	30 mo	30 mo	30 mo	18 mo
CONSTRUCTION COST	$700 K	$2.3 M	$750 K	$1.8 M	$2.3 M	$3.5 M	$2.2 M
SUPPORT COSTS							
Environmental Document	$100 K	$180 K	$100 K	$180 K	$180 K	$180 K	$150 K
Preliminary Engineering	$100 K	$150 K	$100 K	$150 K	$550 K	$400 K	$200 K
PS & E	$140 K	$250 K	$140 K	$150 K	$350 K	$400 K	$300 K
Construction Management + Administration (≈15% Const.)	$100 K	$350 K	$110 K	$270 K	$350 K	$530 K	$330 K
Miscellaneous	$30 K	$50 K	$50 K	$100 K	$100 K	$150 K	$150 K
TOTAL PROJECT COST							
OPTONAL AUXILIARY LANE ($1.6 M Const. Plus Support Costs)							
TOTAL PROJECT COST WITH OPTIONAL AUXILIARY LANE							

Alt 1
$3.3 M

Notes:

* No Project Report (PR) or Permit Engineering Evaluation Report (PEER) is assumed to be required. If a project approval document is necessary, support costs may be higher.

** A PEER is assumed to be the project approval document. If a PR is necessary, support costs may be higher.

*** A PR is assumed to be the project approval document.

FUNDING

FUNDING

- Have begun coordination with SJCOG regarding funding opportunities
- City of Lodi has filed RTIP application for Turner Road Alternative 4
- Coordination with Caltrans