

WaterFix Construction Impacts—Yolo County Traffic, Road Safety, and Pavement Deterioration

Prepared by the County of Yolo for presentation to the State Water Resources Control Board

Presentation Overview

MAIN TOPICS

- Affected local road segments studied in Final EIR/EIS
- Pavement Condition Index—Generally and for affected roads
- Clarksburg Roads: Conditions and challenges
 - State Route 84 and the “traffic factor”
 - Hamilton Road: Before and after Bogle Production Facility construction
 - Hamilton Road: Reconstruction challenges
 - Z Line Road: Damage during traffic rerouting
 - Willow Point Road: Typical road base erosion
- Conclusion

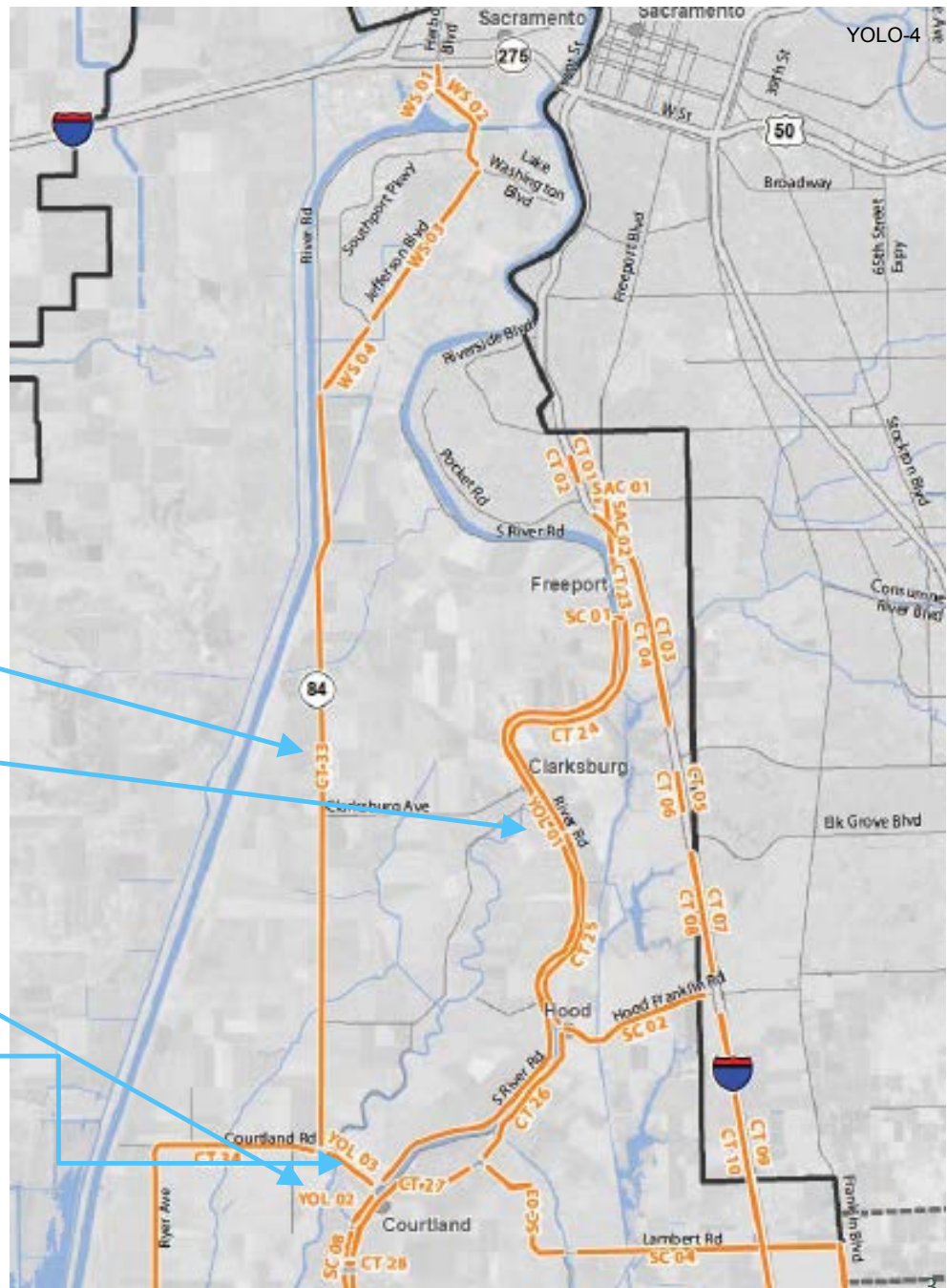
Affected Road Segments Studied in Final EIR/EIS

State Route 84 (Jefferson Blvd.) (CT 33)

South River Road—Freeport Bridge to Courtland Road (YOL 01)

South River Road—Courtland Road to Sutter Slough Bridge (YOL 02)

Courtland Road—State Route 84 to South River Road (YOL 03)



Pavement Condition Index (PCI)

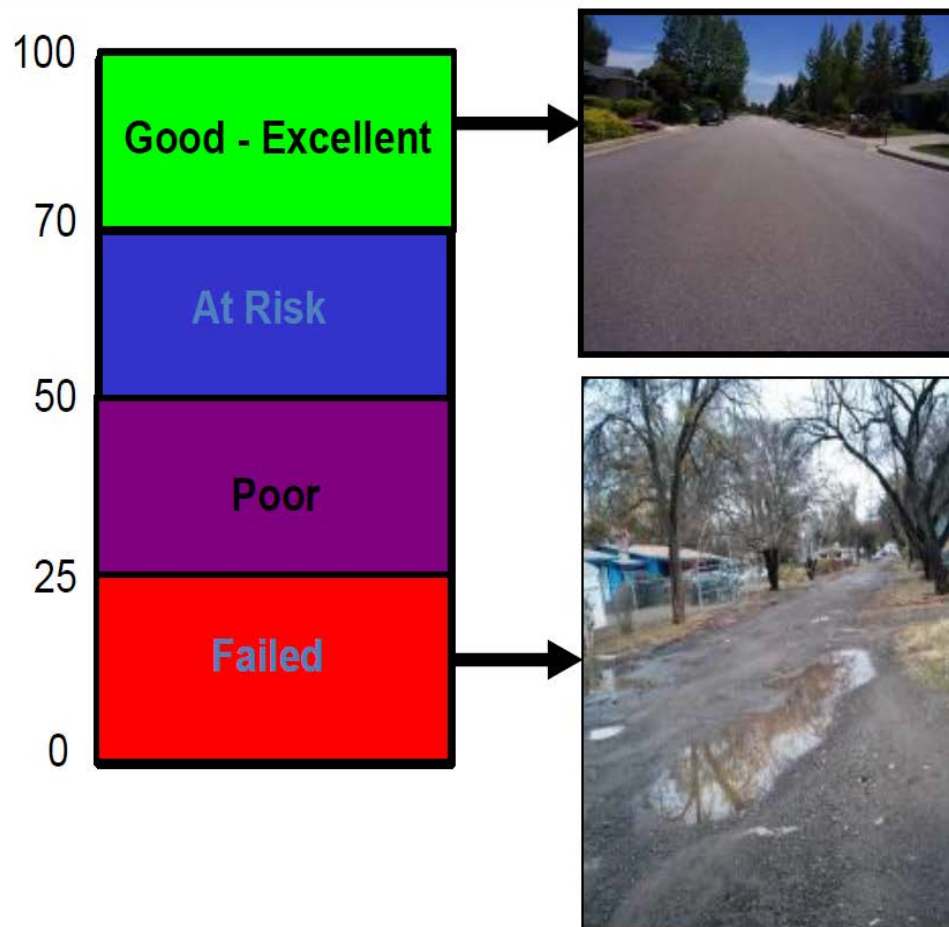
County Roads Preserve the Health & Safety of County Residents

Pavement Condition Index

Less than 70 = At Risk

Less than 50 = Poor

Less than 25 = Failed



PCI for Affected Road Segments in Yolo County

Less than 70 = At Risk

Less than 50 = Poor

State Route 84 PCI from p. 19-19 of Final EIR/EIS. Based on International Roughness Index an equivalent system. IRI of greater than 170 = deficient

(Yolo County Data 2017)

CT 33 SR 84 West Sacramento Courtland Rd Deficient Majority IRI range from 157 to 294. Approximately 1 mile better than acceptable (minority of segment length).
(Jefferson Blvd) City Limits

	NAME	SECTION	START	END	LENGTH	PCI
YOL 01	SOUTH RIVER RD - 139	10	FREEPORT BRIDGE	ROSE RD	12,319	75
	SOUTH RIVER RD - 139	15	ROSE RD	PUMPHOUSE RD	3,560	95
	SOUTH RIVER RD - 139	25	PUMPHOUSE RD	WILLOW POINT RD	911	95
	SOUTH RIVER RD - 139	30	WILLOW POINT RD	NETHERLANDS RD	4,317	94
	SOUTH RIVER RD - 139	30	5580' N/O FREEPORT	FREEPORT BRDG	5,580	45
	SOUTH RIVER RD - 139	40	NETHERLANDS RD	CR141	3,910	100
	SOUTH RIVER RD - 139	50	CR141	MERRITT LANDING	9,120	86
	SOUTH RIVER RD - 139	60	MERRITT LANDING	CR142	4,420	80
	SOUTH RIVER RD - 140	70	CR142	5280' S/O CR142	5,280	57
	SOUTH RIVER RD - 140	74	5280' S/O CR 142	9585' S/O CR 142	4,305	41
	SOUTH RIVER RD - 140	83	9585' S/O CR 142	3360' N/O CR 143	5,000	37
	SOUTH RIVER RD - 140	87	3360' N/O CR 143	CR 143	3,360	44
	SOUTH RIVER RD - 140	90	CR143	COURTLAND RD	4,057	44
YOL 02	SOUTH RIVER RD - 140	90	COURTLAND RD	SACTO COUNTY	3,047	44
YOL03	COURTLAND RD - 158	10	SH 84	CR140	4,995	36

State Route 84

Typical east lane (levee
slope side) pavement
failures along the Deep
Water Ship Channel Levee












Note drop-off (at left),
narrow lanes and shoulders

(Photo taken 11/2017)



Traffic Factor

Understanding why heavy vehicles destroy roads

Class	Description	Picture	Traffic Factor* (Car = 1)
Class 1 Class 2 Class 3	Motorcycle Passenger Car Pickup Van		1
Class 4	Bus		969
Class 5	2 Axles, 6-Tire Single Units		103
Class 6	3 Axles, Single Unit		1,236
Class 7	3 to 4 Axles, Single Trailer		5,296
Class 8	3 to 4 Axles, Single Trailer		1,116
Class 9	5 Axles, Single Trailer		2,970
Class 10	6 or More Axles, Single Trailer		2,650
Class 11	5 or Less Axles, Multi-Trailers		2,402
Class 12	6 Axles, Multi -Trailers		6,765
Class 13	7 or More Axles, Multi-Trailers		4,224

* CLASS 1, 2, & 3 VEHICLES (PASSENGER CARS) ARE CONSIDERED EQUAL TO A TRAFFIC FACTOR (i.e. PAVEMENT IMPACT) OF 1. CLASS 4 THROUGH 13 TRANSPORT/HAULING VEHICLES ARE SHOWN AS AN EQUIVALENT NUMBER OF PASSENGER CAR TRIPS (e.g. ONE CLASS 4 TRIP ON A ROAD IS EQUAL TO 969 PASSENGER CARS TRIPS).

Clarksburg Roads: Example 1

Hamilton Road Before/After Bogle Production Facility Construction

BEFORE



NINE MONTHS LATER



Clarksburg Roads: Example 2

Hamilton Road Reconstruction

Hamilton Road west
of State Route 84
(2012 Photos)

Subgrade insufficient
to support legally
loaded lime
transport truck

Note dewatered
roadside ditches and
extent of subgrade
damage



Clarksburg Roads: Example 3

Z Line Road: Damage from brief service as detour route

Z Line Road, west of
and parallel to SR 84
(2012 Photos)

Top photos look north

Bottom photos look
south

Note damage in
particular to
southbound lane in
photos (left lane at
top, right lane at
bottom) —the lane
that received the
most traffic from
loaded trucks during
the detour period



Clarksburg Roads: Example 4

Z Line Road Today, following reconstruction

Note that just a few years after reconstruction, Z Line Road is already showing significant deterioration simply from local traffic (including heavy trucks)

(Photo taken 11/2017)



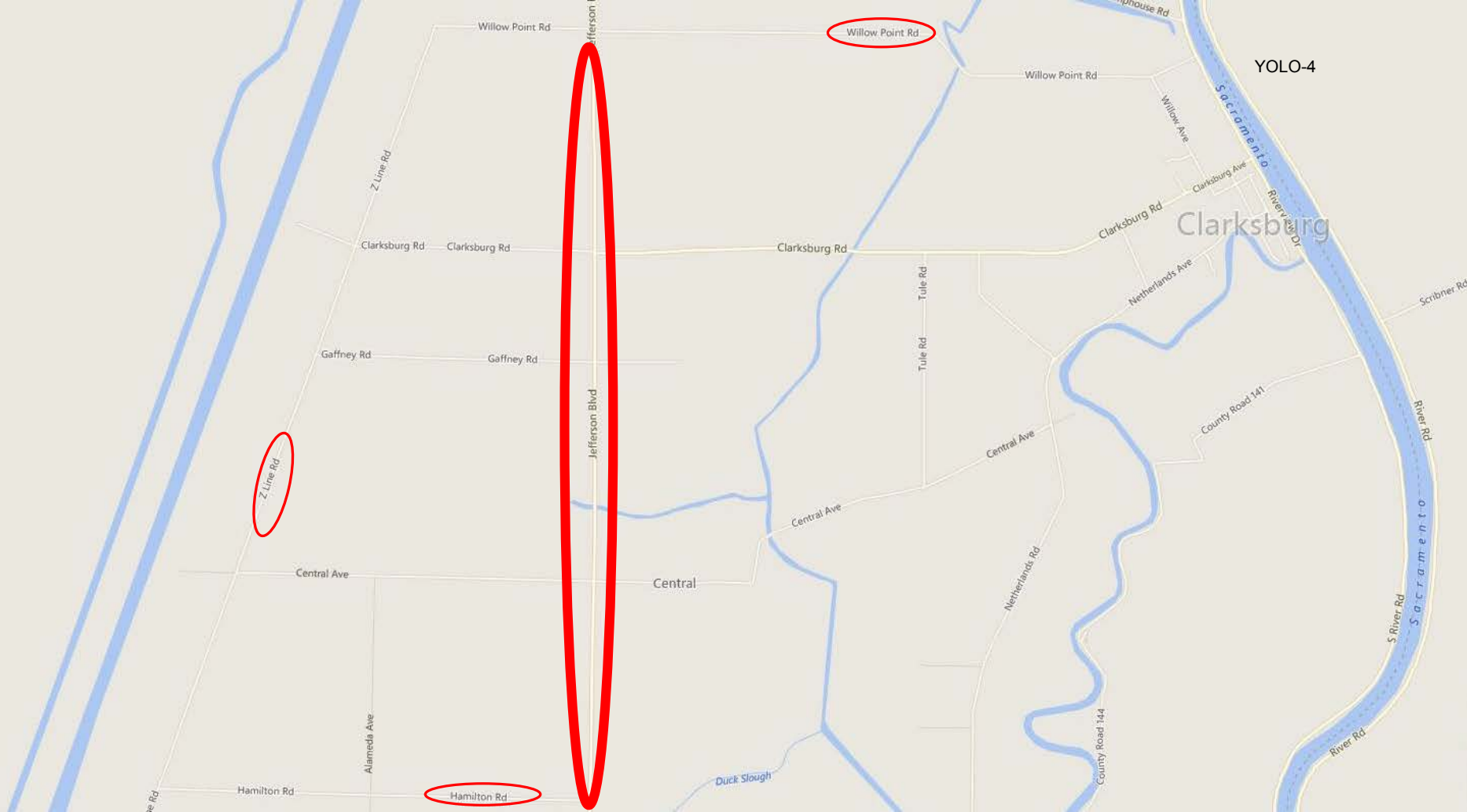
Clarksburg Roads: Example 5

Willow Point Road: Typical pavement edge deterioration

Saturated soils due to nearby drainage ditch and saturated soils cause erosion and pavement failure

(Photo taken 11/2017)





Conclusion