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Smoothness Monitoring of Selected Concrete Surfaces

Authors
Guada, Irwin
Harvey, John T

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Smoothness Monitoring of Selected Concrete Surfaces

Authors:
Irwin Guada and John T. Harvey

Work Conducted Under Partnered Pavement Research Center
Strategic Plan Element No. 3.35: Quieter Pavement Monitoring (DRISI Task 2710)

PREPARED FOR:

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16. ABSTRACT

In late 2015, Caltrans requested that 26 recently constructed concrete projects be tested for smoothness in terms of the International Roughness Index (IRI). The stated purpose was to observe measured IRI on projects accepted after a standard special provision (SSP) change that Caltrans made in 2013 and that was incorporated into the 2015 Construction Contract Standards. The projects provided 52 test sections for evaluation, consisting of three types of paving work: (1) diamond grind on existing pavement, (2) new continuously reinforced concrete pavement, and (3) new jointed plain concrete pavement. The project plans had completion dates from May 2010 to December 2014, and contract acceptance dates from April 2014 to October 2015. Caltrans did not identify which projects had the new SSP or specification change in its contract documents. The IRI data were collected from October 2016 to December of 2016. The IRI data collected included the effects of paving, any corrective grinding required to meet contract acceptance, and the increased roughness caused by traffic over post-construction periods of one to more than two and a half years. At the time of testing in 2016, the UCPRC test vehicle was equipped with a point laser in the left wheel path and a wide spot laser in the right wheel path. The data presented in this technical memorandum are primarily from the wide spot laser because the current standards require the wide spot laser. In general, the IRI measured by a point laser can be unduly increased due to the surface texture of the pavement, which is part of the reason for moving toward a wide spot laser. The construction specification considers both wheel paths and not just the right wheel path tested in this project. The IRI data using the wide spot laser in the right wheel path alone showed that 22% of the 0.1 mi. long sections met the construction standard of 60 in./mi. when measured one to two and a half years after construction. Based on the results from the right wheel path and the wide spot laser, 67% of the right wheel path sections are in good condition with IRI values between 60 and 94 in./mi., 28% are in acceptable condition with IRI values between 95 and 170 in./mi., and 5% are in poor condition with IRI values of 170 in./mi. or greater. Although Caltrans did not identify which projects included the new specification, a trend was observed that projects completed later had lower IRI values than those completed several years earlier.

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SIGNATURES

I.M. Guada **FIRST AUTHOR**	J.T. Harvey **TECHNICAL REVIEW**	C. Fink **EDITOR**	J.T. Harvey **PRINCIPAL INVESTIGATOR**	F. Bautista **CALTRANS TECH. LEADS**	T. Joseph Holland **CALTRANS CONTRACT MANAGER**

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LIST OF ABBREVIATIONS

CRCP	Continuously reinforced concrete pavement
DG	Diamond grinding
HOV	High-occupancy vehicle
IRI	International Roughness Index
JPCP	Jointed plain concrete pavement
MRI	Mean Roughness Index
PCC	Portland cement concrete
SSP	Standard special provision

LIST OF TEST METHODS AND SPECIFICATIONS USED IN THE REPORT

ASTM E950	Measuring the Longitudinal Profiles of Traveled Surfaces with an Accelerometer Established Inertial Profiling Reference
ASTM E1926	Computing International Roughness Index of Roads from Longitudinal Profile Measurements

SI* (MODERN METRIC) CONVERSION FACTORS				
APPROXIMATE CONVERSIONS TO SI UNITS				
Symbol	**When You Know**	**Multiply By**	**To Find**	**Symbol**
LENGTH				
in.	inches	25.40	millimeters	mm
ft.	feet	0.3048	meters	m
yd.	yards	0.9144	meters	m
mi.	miles	1.609	kilometers	km
AREA				
in^2	square inches	645.2	square millimeters	mm^2
ft^2	square feet	0.09290	square meters	m^2
yd^2	square yards	0.8361	square meters	m^2
ac.	acres	0.4047	hectares	ha
mi^2	square miles	2.590	square kilometers	km^2
VOLUME				
fl. oz.	fluid ounces	29.57	milliliters	mL
gal.	gallons	3.785	liters	L
ft^3	cubic feet	0.02832	cubic meters	m^3
yd^3	cubic yards	0.7646	cubic meters	m^3
MASS				
oz.	ounces	28.35	grams	g
lb.	pounds	0.4536	kilograms	kg
T	short tons (2000 pounds)	0.9072	metric tons	t
TEMPERATURE (exact degrees)				
°F	Fahrenheit	(F-32)/1.8	Celsius	°C
FORCE and PRESSURE or STRESS				
lbf	pound-force	4.448	newtons	N
lbf/in^2	pound-force per square inch	6.895	kilopascals	kPa
APPROXIMATE CONVERSIONS FROM SI UNITS				
Symbol	**When You Know**	**Multiply By**	**To Find**	**Symbol**
LENGTH				
mm	millimeters	0.03937	inches	in.
m	meters	3.281	feet	ft.
m	meters	1.094	yards	yd.
km	kilometers	0.6214	miles	mi.
AREA				
mm^2	square millimeters	0.001550	square inches	in^2
m^2	square meters	10.76	square feet	ft^2
m^2	square meters	1.196	square yards	yd^2
ha	hectares	2.471	acres	ac.
km^2	square kilometers	0.3861	square miles	mi^2
VOLUME				
mL	milliliters	0.03381	fluid ounces	fl. oz.
L	liters	0.2642	gallons	gal.
m^3	cubic meters	35.31	cubic feet	ft^3
m^3	cubic meters	1.308	cubic yards	yd^3
MASS				
g	grams	0.03527	ounces	oz.
kg	kilograms	2.205	pounds	lb.
t	metric tons	1.102	short tons (2000 pounds)	T
TEMPERATURE (exact degrees)				
°C	Celsius	1.8C + 32	Fahrenheit	°F
FORCE and PRESSURE or STRESS				
N	newtons	0.2248	pound-force	lbf
kPa	kilopascals	0.1450	pound-force per square inch	lbf/in^2

*SI is the abbreviation for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380.
(Revised April 2021)

1 INTRODUCTION

1.1 Background

Smoothness measured according to the International Roughness Index (IRI) is increasingly used as a construction quality parameter for both new construction and rehabilitation and maintenance treatments. Smoothness as measured by the IRI is of interest because rough pavements cause increased vehicle fuel use, increased vehicle maintenance costs, and increased freight damage *(1,2,3)*. Pavements that are built rougher also tend to have shorter lives because of the dynamic interactions between vehicle suspensions and the pavement surface that result in heavier loading.

The California Department of Transportation (Caltrans) has historically used the California Profilograph, a moving straight-edge, to identify rough areas in newly paved surfaces that require attention before a project is accepted from a contractor. The profilograph does not produce data that can be used to calculate IRI. In September 2013, Caltrans revised the Standard Special Provision (SSP) 40-1 for concrete pavement and implemented a new SSP 39-1.12 for asphalt pavement. Both SSPs require a contractor to collect pavement smoothness profiles in both the left and right wheel paths using an inertial profiler and to average the two wheel paths to determine the Mean Roughness Index (MRI) as the roughness parameter for pavement smoothness.

In late 2015, Caltrans requested IRI testing on a limited number of construction projects built with the new IRI-based smoothness specification. The stated purpose was to measure the IRI on projects accepted after the SSP change that Caltrans made in 2013 that was later incorporated into the 2015 Construction Contract Standards *(4)*. The projects provided 52 test sections for evaluation consisting of three types of paving work: (1) diamond grind (DG) on existing pavement, (2) new continuously reinforced concrete pavement (CRCP), and (3) new jointed plain concrete pavement (JPCP). The project plans had completion dates from May 2010 to December 2014 and contract acceptance dates from April 2014 to October 2015. Caltrans did not identify which projects had the new SSP or specification change in its contract documents. The IRI data were collected from October 2016 to December 2016 and include the effects of paving, any corrective grinding required to meet contract acceptance, and the increased roughness caused by traffic over post-construction periods of up to two and a half years.

1.2 Purpose of Project

The purpose of the project, Partnered Pavement Research Program (PPRC) Strategic Plan Element (SPE) 3.35, "Quieter Pavement Monitoring," is to measure the surface characteristics of pavements that may reduce tire pavement noise generated from the highway. The purpose of this task is to measure the IRI on projects identified by Caltrans and report the results.

This research measured the IRI on 26 concrete projects that included three concrete surface types: (1) DG surface rehabilitation, (2) new CRCP construction, and (3) new JPCP construction. The stated purpose was not to compare these three surface types but rather to investigate whether the change in the smoothness specification influenced the surface smoothness of concrete pavement. However, after measurement on the test sections was completed, the UCPRC found that the plans for many of the projects selected by Caltrans were approved before the availability of the SSP and nearly all were contracted before the inclusion of the IRI measurement in the standard specifications.

2 PROJECT DESIGN

Table 2.1 provides a list of the 26 concrete projects separated by surface type. The project location is shown along with the contract number, material bid quantity, total bid amount, type of work, and description of work; this information was provided by the Caltrans database of ongoing projects *(5)*. The project location lists the district, county, route, post mile start, and post mile end. CRCP and JPCP represent new pavement construction while DG is applied to an existing concrete pavement surface.

Table 2.1. Concrete Projects for IRI Study (26 Projects)

Project Location: District – County – Route – Post Mile Start/End	Contract Number	Bid Quantity	Total Bid Amount ($)	Type of Work	Description of Work
03-Butte-99-PM 24.5/30.2	4M7904	66,200 yd^2	291,280	DG	PCC Profile Grinding
03-Nevada-80-PM 21.2/28.1	4M8404	325,000 yd^2	3,737,500	DG	Grind Existing Bonded Wearing
04-Santa Clara-280-PM 7.8/11.5	272044	288,000 yd^2	1,209,600	DG	Rehabilitate Existing Pavement
05-Monterey-101-PM 49.8/55.3	1A7304	91,600 yd^2	302,280	DG	Pavement Preservation (Cap M)
05-Santa Barbara-101-PM 10.0/10.6	1F8404	19,800 yd^2	148,500	DG	Slab Replacement
07-Los Angeles-5-PM C43.9/C46.4	252614	87,000 yd^2	391,500	DG	Roadway Rehabilitation
07-Los Angeles-5-PM R73.2/R88.6	252804	423,000 yd^2	1,776,600	DG	PCC Pavement, Widen Median Shoulder
07-Los Angeles-60-PM 11.6/R23.6	286904	335,000 yd^2	1,165,800	DG	Replace PCC Slab, Grind Pavement
07-Ventura-23-PM R3.5/T11.6	4Y0404	252,000 yd^2	866,880	DG	PCC Profile Grinding
08-San Bernardino-15-PM 3.8/12.8	472224	259,000 yd^2	1,036,000	DG	Pavement Rehabilitation, Slab
10-Stanislaus-99-PM R0.0/R24.7	0M8004	243,000 yd^2	972,000	DG	Rehabilitate Concrete Pavement
11-Imperial-86-PM R21.9/43.1	2M4604	338,000 yd^2	1,064,700	DG	PCC Slab Replacement and Repair
12-Orange-91-PM 0.0/10.1	0H0294	701,000 yd^2	2,523,600	DG	Replace Concrete Pavement
12-Orange-22-PM R1.1/13.2	0L6504	487,000 yd^2	1,168,800	DG	Diamond Grinding
12-Orange-73-PM 25.7/28.0	0H0344	99,500 yd^2	288,550	DG	NB/SB Slab Replacement
02-Siskiyou-5-PM 51.2/58.1	3E7604	95,400 yd^3	21,465,000	CRCP	Reconstruction
06-Kern-99-PM 17.0/22.1	0G8304	47,500 yd^3	7,418,075	CRCP	Widen Freeway from 6 to 8 Lanes
06-Kern-99-PM 27.0/28.4	0G8404	12,600 yd^3	2,165,688	CRCP	Widen Freeway from 6 to 8 Lanes
06-Kern-99-PM R28.4/R43.9	0L6404	145,000 yd^3	19,720,000	CRCP	Replace Existing Pavement
10-Merced-99-PM 4.6/10.5	415704	81,000 yd^3	14,823,000	CRCP	Construct Freeway, Interchange, Bridge
04-Contra Costa-680-PM 4.0/6.8	2285H4	17,300 yd^3	2,941,000	JPCP	Widen Freeway, Retaining Walls
06-Fresno-180-PM R71.8/74.5	342524	26,300 yd^3	3,563,650	JPCP	New Express Highway
07-Los Angeles-5-PM 31.6/36.0	1218V4	34,530 yd^3	4,672,800	JPCP	Construct High Occupancy Vehicle Lanes
07-Los Angeles-5-PM R46.3/R50.0	2332A4	44,100 yd^3	5,292,000	JPCP	Widen Roadway and Bridges with PCC
11-San Diego-805-PM 5.5/9.4	2T1814	19,000 yd^3	2,850,000	JPCP	Construct High Occupancy Vehicle Lanes
12-Orange-57-PM 12.3/15.2	0F0404	12,300 yd^3	1,906,500	JPCP	Widen NB Route 57 and Bridges

Note: DG = Diamond Grind, CRCP = Continuously Reinforced Concrete Pavement, JPCP = Jointed Plain Concrete Pavement, PM = Post Mile, PCC = Portland Cement Concrete, NB = Northbound, SB = Southbound, Cap M = Capital Maintenance

2.1 Test Sections

For this study, each lane and direction was considered a separate test section. Two DG projects, Imperial-86 and Butte-99, have only one direction, while the remaining 24 projects include both directions. These 24 projects involved only one lane in each direction regardless of the number of lanes on the facility, except for Contra Costa-680, a JPCP project, which has two lanes in each direction and therefore yields four test sections. Table 2.2 repeats the project locations grouped by work type, lists the sections in order of the project plans date, and provides the contract acceptance date, sampling date, and section names used throughout this report.

Table 2.2. Concrete Test Sections Grouped by Work Type (52 Sections)

Project Location: District – County – Route – Post Mile Start/End	Project Plans Date	Contract Acceptance Date	UCPRC Sampling Date	Time Between Acceptance and Sampling (months)	Section Name, Primary Direction	Section Name, Secondary Direction
Diamond Grind						
10-Stanislaus-99-PM R0.0/R24.7	5/23/2011	4/30/2014	12/6/2016	31.3	Sta99N3PM6.8	Sta99S3PM18.4
08-San Bernardino-15-PM 3.8/12.8	6/13/2011	11/24/2014	11/22/2016	24.0	SBd15N4PM3.8	SBd15S4PM12.8
12-Orange-91-PM 0.0/10.1	6/20/2011	6/30/2014	11/23/2016	28.8	Ora91E4PM0.0	Ora91W3PM10.1
07-Los Angeles-60-PM 11.6/R23.6	6/27/2011	3/4/2015	11/24/2016	20.7	LA60E4PM11.6	LA60W4PMR23.6
07-Los Angeles-5-PM R73.2/R88.6	7/11/2011	3/5/2015	11/26/2016	20.8	LA5N2PM73.6	LA5S2PM88.6
07-Los Angeles-5-PM C43.9/C46.4	7/2/2012	5/1/2015	11/25/2016	18.9	LA5N2PMC43.9	LA5S2PMC46.4
12-Orange-22-PM R1.1/13.2	10/8/2012	5/1/2014	11/23/2016	30.8	Ora22E4PM1.1	Ora22W4PM13.2
07-Ventura-23-PM R3.5/T11.6	3/11/2013	2/23/2015	11/24/2016	21.0	Ven23N3PMR3.5	Ven23S3PM11.6
03-Nevada-80-PM 21.2/28.1	3/3/2014	10/21/2015	10/21/2016	12.0	Nev80E2PM21.2	Nev80W2PM28.1
12-Orange-73-PM 25.7/28.0	3/24/2014	12/24/2015	11/23/2016	11.0	Ora73N3PM25.7	Ora73S3PM28.0
05-Monterey-101-PM 49.8/55.3	4/14/2014	9/8/2015	11/2/2016	13.8	Mon101N2PM52.4	Mon101S2PM55.3
04-Santa Clara-280-PM 7.8/11.5	6/2/2014	10/14/2015	11/2/2016	12.7	SCl280N4PM7.8	SCl280S4PM11.5
11-Imperial-86-PM R21.9/43.1	7/7/2014	5/8/2015	11/19/2016	18.4	Imp86S2PM43.1	—
05-Santa Barbara-101-PM 10.0/10.6	11/17/2014	7/30/2015	11/3/2016	15.2	SB101N2PM10.0	SB101S2PM10.6
03-Butte-99-PM 24.5/30.2	12/1/2014	10/7/2015	10/21/2016	12.5	But99S2PM30.2	—
Continuously Reinforced Concrete Pavement						
10-Merced-99-PM 4.6/10.5	10/11/2010	5/18/2015	12/6/2016	18.7	Mer99N3PM4.6	Mer99S3PM10.5
02-Siskiyou-5-PM 51.2/58.1	6/15/2011	7/15/2015	10/20/2016	15.2	Sis5N2PM51.2	Sis5S2PM58.1
06-Kern-99-PM R28.4/R43.9	8/1/2011	2/14/2014	12/8/2016	33.8	Ker99N3PMR28.4	Ker99S3PMR43.9
06-Kern-99-PM 27.0/28.4	4/23/2012	7/10/2014	12/7/2016	29.0	Ker99N1PM27.0	Ker99S1PM28.4
06-Kern-99-PM 17.0/22.1	5/14/2012	9/18/2014	12/7/2016	26.7	Ker99N1PM17.1	Ker99S1PM22.1
Jointed Plain Concrete Pavement						
07-Los Angeles-5-PM 31.6/36.0	5/3/2010	12/15/2015	11/24/2016	11.3	LA5N4PM31.6	LA5S4PM36.0
12-Orange-57-PM 12.3/15.2	4/18/2011	4/21/2015	11/22/2016	19.1	Ora57N5PM12.3	Ora57S5PM15.2
07-Los Angeles-5-PM R46.3/R50.0	4/25/2011	4/21/2015	11/25/2016	19.2	LA5N4PMR46.3	LA5S4PMR50.0
11-San Diego-805-PM 5.5/9.4	12/5/2011	4/3/2014	11/21/2016	31.7	SD805N4PM5.5	SD805S5PM9.4
04-Contra Costa-680-PM 4.0/6.8	7/30/2012	8/18/2014	11/2/2016	26.5	CC680N4PM4.0	CC680S4PM6.8
					CC680N5PM4.4	CC680S5PM6.6
06-Fresno-180-PM R71.8/74.5	12/10/2012	10/27/2014	12/6/2016	25.3	Fre180E2PM71.8	Fre180W2PM73.9

The contract acceptance and sampling dates in Table 2.2 show that the gap in time ranged from 11 to 34 months. Because the contract acceptance date does not reflect the precise date on which contract acceptance smoothness testing was conducted or when the project was opened to traffic, the actual time gap will always be a longer time period than the calculated time shown in Table 2.2. The time between contract acceptance and measurement provides a simple, if imperfect, indication of the number of vehicles and exposure to the environment that degraded the IRI from the values measured for contract acceptance (if these IRI values were measured). Additionally, the amount of corrective grinding required for acceptance is unknown. Therefore, measuring the IRI after corrective grinding does not allow for the comparison of direct effect of construction techniques on smoothness.

2.2 Test Protocol and Data Processing

Roughness measurements were calculated following ASTM E1926, "Computing International Roughness Index of Roads from Longitudinal Profile Measurements." The UCPRC test vehicle carries equipment for measuring the inertial profile in accordance with ASTM E950, "Measuring the Longitudinal Profiles of Traveled Surfaces with an Accelerometer Established Inertial Profiling Reference."

The IRI was measured in the left wheel path with a standard point laser measuring at 16 kHz and in the right wheel path with a wide spot (Roline) laser measuring at 3 kHz, both of which were attached to the rear of the test vehicle in a Dynatest Mark III bumper-mounted inertial profiler. While these two laser types both satisfy the requirements of ASTM, the 2015 Caltrans specification requires a Roline-type laser in both wheel paths and this test vehicle was only equipped with a wide spot laser in the right wheel path. Therefore, while IRI data from both wheel paths are shown graphically, tabular data from the standard point laser are not included. Funding was not available to equip the UCPRC test vehicle with a second wide spot laser at the time of this project.

Section 40 of the Caltrans 2015 Standard Specifications references three test methods—California Test 387, AASHTO R 56, and AASHTO R 57—and requires the following two conditions: (1) no area of localized roughness with an IRI greater than 120 in./mi. and (2) an MRI of 60 in./mi. or less within a 0.1 mi. section *(6)*. The MRI is the average of the IRIs from the left and right wheel paths. "No area of localized roughness" is assumed to refer to any location in either wheel path.

The length of these projects varies from 0.5 to 21 mi. Because the smoothness protocol test length is 0.1 mi. (528 ft.), each section produced five or more 0.1 mi. long protocol sections. For instance, diamond grind section Sta99N3PM6.8 measures 11.9 mi. and produced 119 protocol sections.

The data were processed using *ProVAL* (v3.61). With *ProVAL*, the user can select the analysis length (the standard is 528 ft. [0.1 mi.]) or analyze continuously, where data are reported for every 0.083 ft. (1 in.). For this study, the data were processed using the 0.1 mi. segment analysis to produce the graphical data and using the continuous analysis to obtain the list of defective segments, defined as any length of pavement with an IRI measurement over 120 in./mi., as measured by the wide spot laser in the right wheel path.

3 DATA SUMMARY

Table 3.1 presents the list of concrete test sections along with the IRI test results with averages and standard deviations from both wheel paths. The average of both wheel paths is generally known as the Mean Roughness Index (MRI), and it is the basis for the Caltrans 2015 specification. However, that term is not used in this technical memorandum and those values are not shown in the table since the left wheel path laser on the test vehicle is a point laser.

Appendix A contains a graph and table for each test section. The graph shows the IRI over the project length, while a single point represents an average IRI over the 0.1 mi. protocol length. The table lists the defective segments. As noted previously, the results of this IRI testing include any corrective grinding required for contract acceptance as well as damage induced by loading and environmental factors over the time between contract acceptance and UCPRC sampling.

The wide spot right wheel path data show that five DG sections maintained an average IRI below 60 in./mi.: Nevada-80, with IRI values of 37 in./mi. northbound and 34 in./mi. southbound; Monterey-101, with IRI values of 58 in./mi. northbound and 40 in./mi. southbound; and Butte-99, with an IRI value of 53 in./mi. Santa Clara-280 southbound has an IRI value of 62 in./mi. These four projects were sampled 12 to 14 months after contract acceptance. The CRCP sections with the lowest right average wheel path IRI came from Siskiyou-5, where the two directions have IRI values of 64 and 69 in./mi. The three JPCP sections with the lowest right average wheel path IRI values are the two directions of Contra Costa-680 Lane 4 with values of 73 and 71 in./mi. and the westbound section of Fresno-180 with a value of 73 in./mi.

Several sections from each group still had “good” IRI values, defined as IRI values of less than 95 in./mi. after two years of traffic, based on the right wheel path with the wide spot laser:

- 19 of 28 (68%) DG sections
- 10 of 10 (100%) CRCP sections
- 3 of 14 (21%) JPCP sections

All but one of the remaining sections, LA5S2PMC46.4 with an average IRI of 190 in./mi., had “acceptable” IRI values, defined as an IRI between 95 and 170 in./mi. *(6)*.

Most of the sections tested are truck lanes as shown in Table 3.1. The data were collected after contract acceptance, so whether the impact of one to three years of heavy vehicle loading in these areas contributed to the higher IRI

values is unknown. The impact of truck loading may be indicated by the difference between Lane 4 and Lane 5 of the Contra Costa-680 project. Lane 5 is a truck lane one lane to the right of Lane 4, a passenger lane. Lane 5 had average IRI values of 118 and 111 in./mi. for the two directions, which are differences of 45 and 40 in./mi., respectively, greater than the two directions of Lane 4. Whether Lane 4 and Lane 5 had the same IRI at the completion of construction is unknown. It would be surprising if only a few years of traffic resulted in a difference of 40 in./mi., suggesting that the truck lane was rougher at the time of construction completion.

Table 3.1: Concrete Test Sections with IRI Results

Sections, Grouped by Work Type	Lane Number of Total Lanes	Lane Type (HOV, Truck, or Passenger)	Section Length (mi.)	Average Left – IRI, Point Laser (in./mi.)[a]	St. Dev. Left – IRI, Point Laser (in./mi.)	Average Right – IRI, Wide Spot Laser (in./mi.)	St. Dev. Right – IRI, Wide Spot Laser (in./mi.)
DG[b]			**7.3**	**101**	**51**	**85**	**43**
Sta99N3PM6.8	3 of 3	Truck	11.9	78	48	68	35
Sta99S3PM18.4	3 of 3	Truck	11.8	75	34	76	40
SBd15N4PM3.8	4 of 4	Truck	9.0	103	45	104	46
SBd15S4PM12.8	4 of 4	Truck	9.0	98	43	93	42
Ora91E4PM0.0	4 of 4	Truck	13.7	160	37	85	35
Ora91W3PM10.1	3 of 4	Truck	13.7	174	64	94	35
LA60E4PM11.6	4 of 5	Truck	12.0	103	56	92	34
LA60W4PMR23.6	4 of 5	Truck	16.4	101	44	101	43
LA5N2PM73.6	2 of 4	Passenger	14.9	83	21	74	23
LA5S2PM88.6	2 of 4	Passenger	14.9	97	33	93	42
LA5N2PMC43.9	2 of 6	Passenger	2.7	129	71	131	74
LA5S2PMC46.4	2 of 6	Passenger	2.7	183	92	190	113
Ora22E4PM1.1	4 of 4	Truck	11.8	128	34	105	34
Ora22W4PM13.2	4 of 4	Truck	11.6	114	32	108	31
Ven23N3PMR3.5	3 of 3	Truck	8.2	99	32	96	35
Ven23S3PM11.6	3 of 3	Truck	7.8	97	26	98	32
Nev80E2PM21.2	2 of 2	Truck	6.7	42	30	37	30
Nev80W2PM28.1	2 of 2	Truck	6.7	46	20	34	15
Ora73N3PM25.7	3 of 3	Truck	2.1	149	32	86	35
Ora73S3PM28.0	3 of 3	Truck	1.9	163	33	79	20
Mon101N2PM52.4	2 of 2	Truck	2.7	68	14	58	13
Mon101S2PM55.3	2 of 2	Truck	3.6	60	9	40	11
SCl280N4PM7.8	4 of 4	Truck	3.8	86	23	76	25
SCl280S4PM11.5	4 of 4	Truck	3.6	76	18	62	19
Imp86S2PM43.1	2 of 2	Truck	21.0	73	19	68	34
SB101N2PM10.0	2 of 2	Truck	0.6	101	14	96	9
SB101S2PM10.6	2 of 2	Truck	0.5	93	21	86	20
But99S2PM30.2	2 of 2	Truck	5.5	61	22	53	21
CRCP[b]			**6.9**	**94**	**32**	**78**	**24**
Mer99N3PM4.6	3 of 3	Truck	5.9	91	16	85	18
Mer99S3PM10.5	3 of 3	Truck	6.0	91	16	76	17
Sis5N2PM51.2	2 of 2	Truck	6.8	81	21	64	15
Sis5S2PM58.1	2 of 2	Truck	6.8	148	38	69	14
Ker99N3PMR28.4	3 of 3	Truck	15.3	81	21	84	35
Ker99S3PMR43.9	3 of 3	Truck	15.3	82	27	76	25
Ker99N1PM27.0	1 of 4	Passenger	1.3	92	30	79	17

Sections, Grouped by Work Type	Lane Number of Total Lanes	Lane Type (HOV, Truck, or Passenger)	Section Length (mi.)	Average Left – IRI, Point Laser (in./mi.)[a]	St. Dev. Left – IRI, Point Laser (in./mi.)	Average Right – IRI, Wide Spot Laser (in./mi.)	St. Dev. Right – IRI, Wide Spot Laser (in./mi.)
Ker99S1PM28.4	1 of 4	Passenger	1.3	79	10	70	10
Ker99N1PM17.1	1 of 4	Passenger	5.0	112	28	89	18
Ker99S1PM22.1	1 of 4	Passenger	5.0	111	18	85	14
JPCP[b]			**3.2**	**117**	**45**	**116**	**47**
LA5N4PM31.6	4 of 5	Truck	4.8	132	50	131	50
LA5S4PM36.0	4 of 5	Truck	4.5	113	41	106	32
Ora57N5PM12.3	5 of 6	Truck	2.8	137	36	129	25
Ora57S5PM15.2	5 of 6	Truck	2.8	101	37	98	37
LA5N4PMR46.3	4 of 5	Truck	3.6	149	58	167	74
LA5S4PMR50.0	4 of 5	Truck	4.1	165	50	157	56
SD805N4PM5.5	4 of 5	Truck	3.9	112	29	112	35
SD805S5PM9.4	5 of 5	Truck	3.9	125	34	127	32
CC680N4PM4.0	4 of 5	Truck	2.7	73	21	73	16
CC680S4PM6.8	4 of 5	Truck	2.7	72	18	71	18
CC680N5PM4.4	5 of 5	Truck	1.8	130	23	118	9
CC680S5PM6.6	5 of 5	Truck	1.8	112	22	111	18
Fre180E2PM71.8	2 of 2	Truck	2.7	99	16	99	11
Fre180W2PM73.9	2 of 2	Truck	2.1	77	10	73	11

[a] Left wheel path spot laser data not used in analysis.
[b] Average values for each group are bolded: DG = Diamond Grind, CRCP = Continuously Reinforced Concrete Pavement, JPCP = Jointed Plain Concrete Pavement.

3.1 Project Data Over the Specification Change

Although the primary objective of assessing whether the change in the new smoothness specification improved the smoothness cannot be completed because of uncertainty regarding the specifications in each project, the IRI at the time of testing was compared to the project plans date. Figure 3.1 shows the IRI from the right wheel path only, from Table 3.1, versus the Project Plans Date in Table 2.2.

Of the projects sampled, the CRCP or JPCP pavements had project plans approved between 2010 and 2012, and DG pavements had project plans approved between 2011 and 2014. However, it appears from this plot that the DG and JPCP with plans approved after June 2012 had better smoothness than those approved earlier. The six CRCP projects, all approved before June 2012, consistently have IRI values of about 80 in./mi.

Eight DG projects planned between January 2011 and January 2014 had IRI values from 74 to 190 in./mi., with an average IRI value of 100 in./mi., while the other seven projects planned between January 2014 and January 2015 had IRI values from 34 to 96 in./mi., with an average IRI value of 65 in./mi. Four JPCP projects planned between January 2010 and January 2012 had IRI values from 98 to 167 in./mi., with an average IRI value of 128 in./mi., while the other two planned between January 2012 and January 2013 had IRI values from 71 to 118 in./mi., with an average IRI value of 91 in./mi. The higher IRI values from older projects indicate a high rate

of increase of IRI with time, and these values may signify the impact of damage induced by loading and environmental factors over time rather than changes in contractor ability to achieve smoothness.

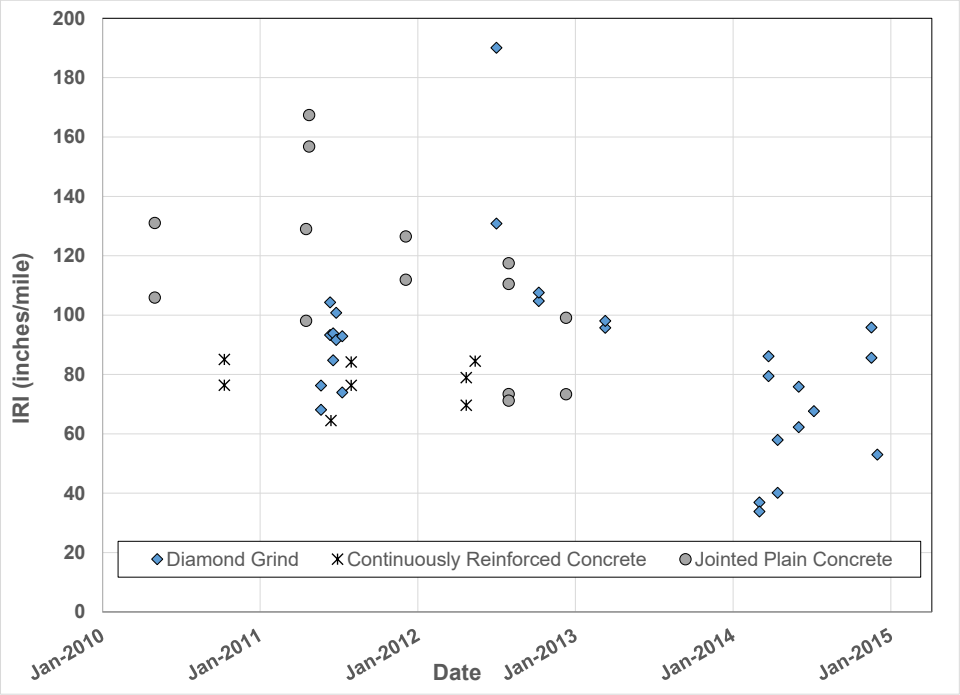

Figure 3.1: IRI from the right wheel path using the wide spot laser versus project plans date.

3.2 Cumulative Protocol Data

A review was completed of all the data analyzed at the 0.1 mi. segment length, and the data were summarized and grouped according to the project work types: DG, CRCP, and JPCP.

The cumulative distribution plots presented in this section show the 2013 SSP/2015 Caltrans construction specification limit of 60 in./mi. as well as the ranges of "good" and "acceptable" IRI values from the annual *State of the Pavement Report (6)*. From the report, "good" IRI values are less than 95 in./mi., and acceptable values are between 95 in./mi. and 170 in./mi. IRI values above 170 in./mi. are considered "poor."

3.2.1 All Sections

All the data analyzed at the 0.1 mi. segment length were collated, yielding 3,489 data points. The cumulative distribution of the data is presented in Figure 3.2. It is again noted that on average these segments were tested two years after construction.

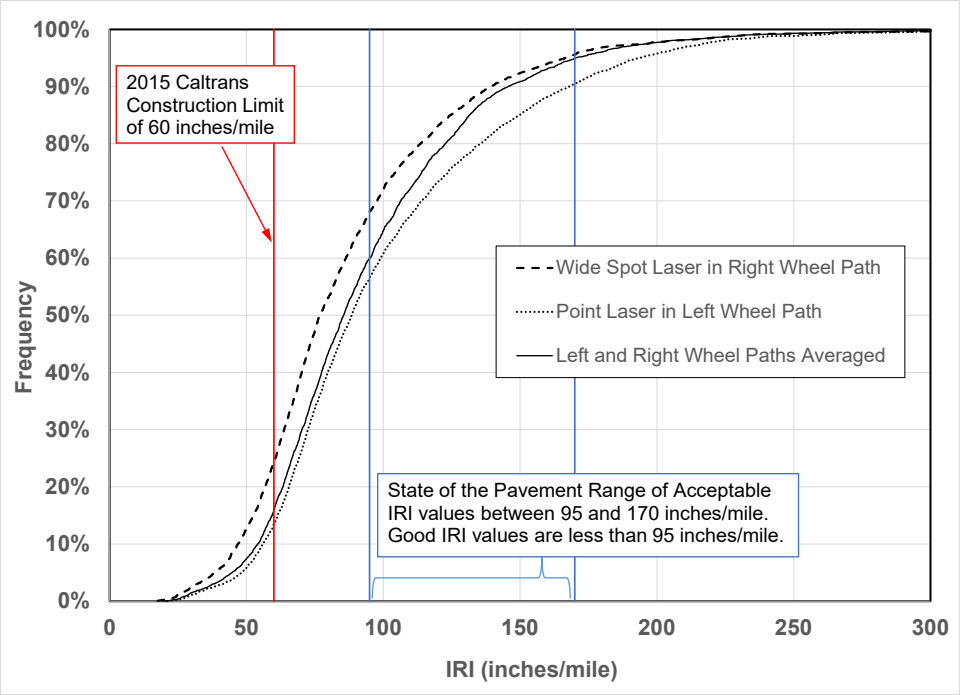

Figure 3.2: Cumulative distribution of all the IRI data.

The primary observation is the lack of sections that meet the 2015 construction smoothness specification one to two and a half years after construction, considering only the wide spot laser in the right wheel path. Only 24% of the 0.1 mi. segments measured IRI values below 60 in./mi. when measured. According to the wide spot laser data, 68% of the right wheel path segments are in good condition, 27% are in acceptable condition, and 5% are in poor condition. If they had been measured with a wide spot laser, the left wheel paths would need to be extremely smooth for the average IRI of both wheel paths to meet the construction specification of 60 in./mi.

The point spot laser measurements in the left wheel path show greater roughness, which should be expected because the points spot laser measures a higher IRI value than the wide spot due to surface texture not associated with roughness.

3.2.2 Diamond Grind Sections

All the diamond grind data analyzed at the 0.1 mi. segment length were collated, yielding 2,336 data points. The cumulative distribution of the data is presented in Figure 3.3.

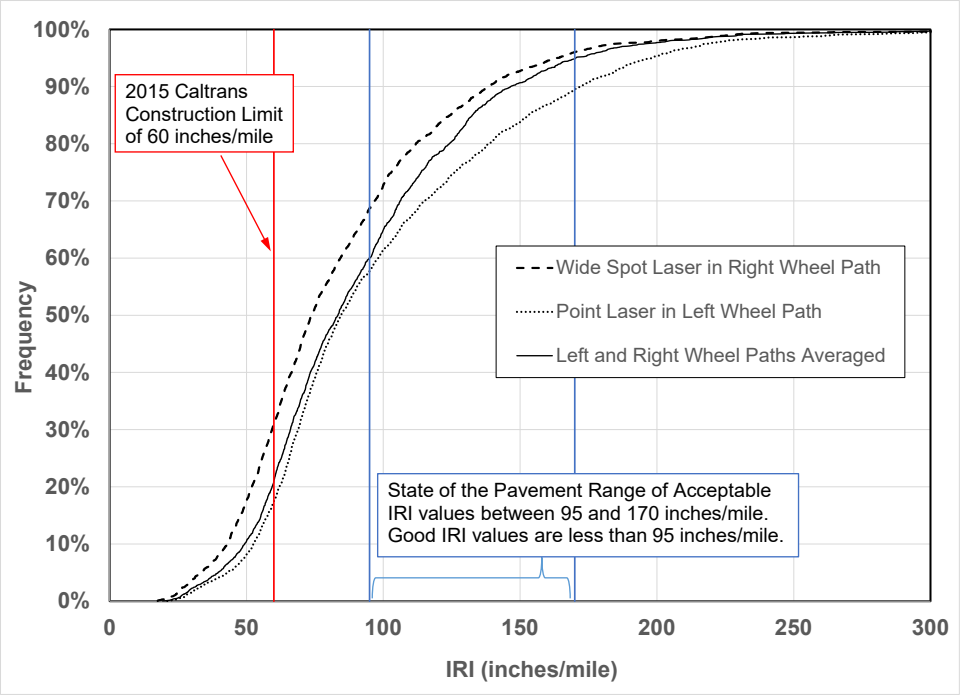

Figure 3.3: Cumulative distribution of all the IRI data from DG segments.

The findings were similar to the overall wide spot laser data discussed in Section 3.2.1, with 68% of the right wheel path segments in good condition, 28% in acceptable condition, and 4% in poor condition, measured with the wide spot laser.

3.2.3 Continuously Reinforced Concrete Pavement Sections

All the CRCP data analyzed at the 0.1 mi. segment length were collated, yielding 697 data points. The cumulative distribution of the data is presented in Figure 3.4.

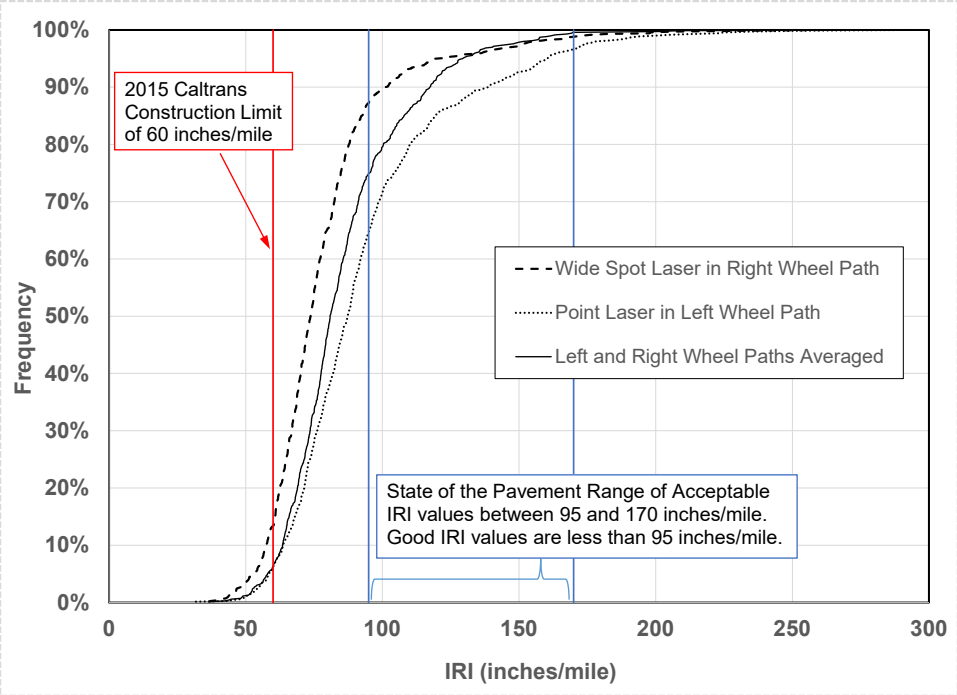

Figure 3.4: Cumulative distribution of all the IRI data from CRCP segments.

According to the wide spot laser data from the right wheel path, 13% of the segments met the construction specification maximum value of 60 in./mi., 87% of the CRCP segments were in good condition, 12% were in acceptable condition, and 1% were in poor condition. With the average time between contract acceptance and sampling exceeding two years, there may be some stability in the IRI value over time for CRCP.

3.2.4 Jointed Plain Concrete Pavement Sections

All the JPCP data analyzed at the 0.1 mi. segment length were collated, yielding 456 data points. The cumulative distribution of the data is presented in Figure 3.5.

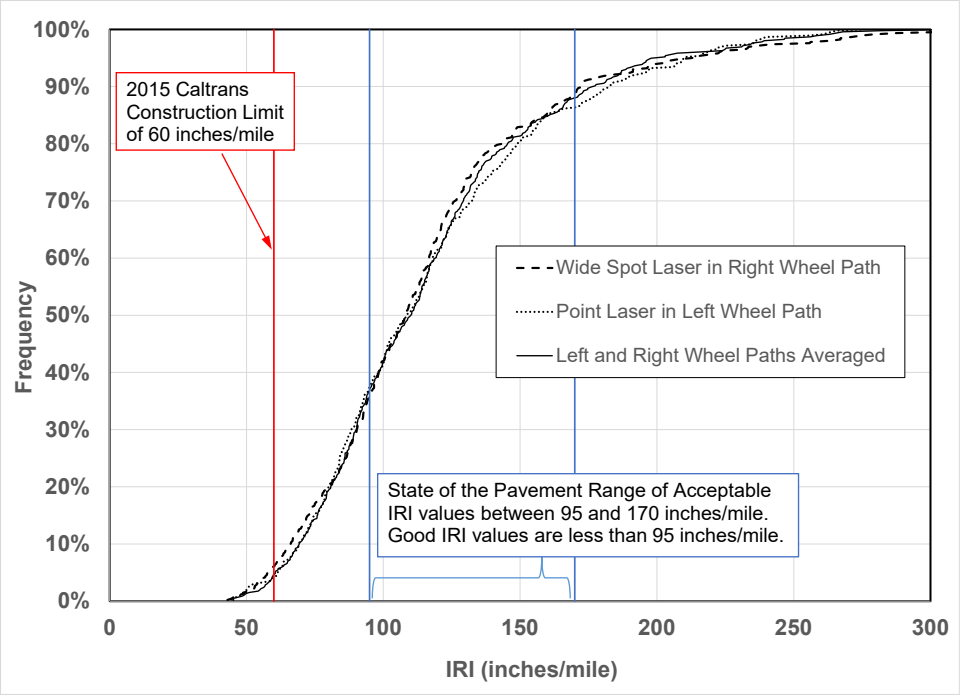

Figure 3.5: Cumulative distribution of all the IRI data from JPCP segments.

Compared to the CRCP segments, a lower percentage of the new JPCP segments, 6%, met the 2015 construction specification, according to the wide spot laser in the right wheel path. The wide spot laser data also show that the JPCP segments were as smooth or less smooth than the DG and CRCP group segments, with 36% of the segments in good condition, 53% in acceptable condition, and 11% in poor condition.

3.3 Defective Segments

As required to meet the smoothness specification, *ProVAL* creates a list of defective segments to provide locations where IRI values exceed a threshold and additional grinding is required. According to the 2015 Caltrans specification, any location with an IRI value above 120 in./mi. requires corrective grinding. The continuous analysis in *ProVAL* is used to calculate the IRI along the entire pavement and to determine if any location exceeds the 120 in./mi. threshold and requires additional grinding.

A list of defective segments was produced for each wheel path. Table 3.2 shows the number of defective segments for each section, from the right wheel path. The defective segments from the right wheel path, measured with the wide spot laser, are listed in Appendix A.

Table 3.2: Defective Segments Summary from the Right Wheel Path with the Wide Point Laser

Sections Grouped by Work Type	Section Length (mi.)	Number of All Defective Segments	Length of All Defective Segments (ft.)	Number of Segments Longer Than 10 ft.	Length of Segments Longer Than 10 ft. (ft.)	Number of Segments Longer Than 50 ft.	Length of Segments longer Than 50 ft. (ft.)	Number of Segments Longer Than 100 ft.	Length of Segments Longer Than 100 ft. (ft.)
DG	**7.3**	**303**	**7762**	**156**	**7211**	**40**	**4264**	**14**	**2453**
Sta99N3PM6.8	11.9	142	4493	64	4203	25	3191	11	2192
Sta99S3PM18.4	11.8	291	6388	148	5841	32	3159	10	1661
SBD15N4PM3.8	9.0	436	16238	252	15599	94	11229	41	7389
SBD15S4PM12.8	9.0	472	11414	241	10620	64	6191	23	3400
Ora91E4PM0.0	13.7	543	12827	261	11703	69	6707	25	3613
Ora91W3PM10.1	13.7	560	15552	314	14612	96	9109	35	4837
LA60E4PM11.6	12.0	594	12259	295	11157	61	5568	16	2404
LA60W4PMR23.6	16.4	963	23013	469	21152	114	12148	38	6675
LA5N2PM73.6	14.9	390	7964	213	7335	31	2642	5	776
LA5S2PM88.6	14.9	662	20202	354	19080	119	12928	46	7847
LA5N2PMC43.9	2.7	161	5603	97	5316	26	3493	12	2547
LA5S2PMC46.4	2.7	81	8138	58	8055	22	7071	13	6440
Ora22E4PM1.1	11.8	801	17978	395	16465	85	8745	28	4854
Ora22W4PM13.2	11.6	870	19917	424	18273	111	10327	31	5105
Ven23S3PM11.6	8.2	424	9429	205	8574	40	4471	17	2828
Ven23N3PMR3.5	7.8	400	8640	198	7870	40	4112	11	1977
Nev80E2PM21.2	6.7	23	1170	18	1142	6	819	2	526
Nev80W2PM28.1	6.7	23	709	18	690	6	400	0	0
Ora73N3PM25.7	2.1	56	1895	34	1813	11	1231	3	660
Ora73S3PM28.0	1.9	44	1032	24	968	10	700	1	109
Mon101N2PM52.4	2.7	24	274	9	206	0	0	0	0
Mon101S2PM55.3	3.6	8	133	4	115	0	0	0	0
SCl280N4PM7.8	3.8	87	1973	43	1782	12	1031	3	390
SCl280S4PM11.5	3.6	51	902	28	818	3	215	1	105
Imp86S2PM43.1	21.0	252	6503	149	6095	28	2949	9	1680
SB101N2PM10.0	0.6	40	642	19	534	1	51	0	0
SB101S2PM10.6	0.5	31	528	17	462	1	52	0	0
But99S2PM30.2	5.5	49	1517	29	1414	7	852	4	663
CRCP	**7.1**	**221**	**3805**	**96**	**3379**	**13**	**1525**	**5**	**970**
Mer99N3PM4.6	5.9	222	3142	83	2680	10	1038	4	651
Mer99S3PM10.5	6.0	93	1805	42	1653	9	932	3	501
Sis5N2PM51.2	6.8	141	2057	69	1791	7	416	0	0
Sis5S2PM58.1	6.8	158	1703	61	1376	2	171	0	0
Ker99N3PMR28.4	15.3	493	12749	223	11810	57	8208	31	6411
Ker99S3PMR43.9	15.3	412	7019	188	6262	18	2476	6	1631
Ker99N1PM27.0	1.3	37	853	20	803	3	383	1	253
Ker99S1PM28.4	1.3	39	441	17	353	0	0	0	0
Ker99N1PM17.1	5.0	333	4566	142	3951	12	1013	1	254
Ker99S1PM22.1	5.0	285	3717	119	3115	10	612	0	0
JPCP	**3.2**	**224**	**5819**	**114**	**5371**	**29**	**3238**	**10**	**1912**
LA5N4PM31.6	4.8	353	11152	191	10480	52	7034	22	4761
LA5S4PM36.0	4.5	283	6873	150	6349	30	3129	12	1944
Ora57N5PM12.3	2.8	305	7860	159	7313	47	4247	13	1926
Ora57S5PM15.2	2.8	155	3493	79	3162	14	1507	6	876
LA5N4PMR46.3	3.6	206	9718	117	9370	46	7663	27	6295
LA5S4PMR50.0	4.1	249	11986	145	11586	66	9539	33	7054
SD805N4PM5.5	3.9	399	7289	177	6249	31	2875	8	1187
SD805S5PM9.4	3.9	461	9125	203	7972	50	4237	14	1801
CC680N4PM4.0	2.7	81	1498	46	1374	3	266	2	211
CC680S4PM6.8	2.7	76	1264	39	1126	5	314	0	0
CC680N5PM4.4	1.8	208	4030	102	3643	21	1426	2	230
CC680S5PM6.6	1.8	131	3709	84	3581	30	2209	3	366
Fre180E2PM71.8	2.7	185	2916	83	2546	11	827	1	114
Fre180W2PM73.9	2.1	47	553	19	441	1	64	0	0

Note: DG = Diamond Grind, CRCP = Continuously Reinforced Concrete Pavement, JPCP = Jointed Plain Concrete Pavement

The number and length of defective segments give an indication of the amount of corrective grinding that would be required to reduce the IRI to a required level. Almost all the sections would require at least 1,000 linear feet of grinding cumulated over several dozen locations. Only three projects require less than 1,000 linear feet of corrective grinding in both directions: Santa Barbara-101, Monterey-101, and Kern-99-PM27/28.4. At 0.6 mi., 2.9 mi., and 1.3 mi., respectively, these are relatively short projects.

For most sections, the point laser reported a rougher surface than the wide spot laser. For CRCP sections, the point laser reported about 50% to 100% more rough segments. For JPCP sections, the point and wide spot lasers reported very similar summary values.

4 SUMMARY AND RECOMMENDATIONS

4.1 Summary

Caltrans requested that the UCPRC test 26 concrete projects to observe effects of the change in the smoothness specification that Caltrans initiated in the 2015 Construction Contract Standards. The projects provided 52 test sections for evaluation, consisting of three types of paving work: (1) diamond grind (DG) of existing concrete pavement, (2) new construction of continuously reinforced concrete pavement (CRCP), and (3) new construction of jointed plain concrete pavement (JPCP). The objective was to assess whether these concrete projects met the smoothness specification. However, once measurements had been completed, the UCPRC determined that none of these project plans were approved under the 2015 specification, and it is uncertain how many included the 2013 SSP for measurement of IRI and met the IRI specification of 60 in./mi. at the time of construction acceptance.

IRI data were collected from October 2016 to December 2016, and the construction projects had contract acceptance dates from February 2014 to December 2015. Of these projects, only six DG project plans were accepted in 2014. The IRI data include any corrective grinding required to meet contract acceptance and the cumulative damage incurred by traffic over one year to two and a half years after construction acceptance.

The UCPRC test vehicle was equipped with a point laser in the left wheel path and a wide spot laser in the right wheel path. Attention was given to the wide spot laser data collected in the right wheel path in the data presented in this technical memorandum because the current standards require the wide spot laser. In general, the IRI measured by a point laser can increase due to the surface texture of the pavement to the extent that the measurement is unusable for specification measurement. This difference is part of the reason for moving toward a wide spot laser. However, this difference in lasers was not evident when testing JPCP sections in this study.

The IRI data showed that few 0.1 mi. long segments met the construction standard of 60 in./mi., only 24% when using the wide spot laser in the right wheel path. While the current smoothness conditions of the roads are seldom near the level of construction contract acceptance, about 68% are in good condition, with average IRI values below 95 in./mi., and another 28% are in an acceptable condition, with average IRI values below 170 in./mi.

About 4% of all 0.1 mi. segments had already become so rough as to be rated in poor condition, with IRI values above 170 in./mi. One diamond grind section, LA5S2PMC46.4, rated as poor over the entire 2.7 mi. test section, with an average section IRI of 190 in./mi. Both sections of an adjacent JPCP, LA5N4PMR46.3 and LA5S4PMR50.0, exhibited the next highest section IRI values, with averages of 167 and 157 in./mi., respectively.

When the IRI data for both CRCP and JPCP sections were combined, the results were very similar to the DG data set. Although there is no information regarding the initial or constructed smoothness of any of the sections, the CRCP sections are generally much smoother than the JPCP sections after two years.

4.2 Recommendations

The following are recommendations based on the findings of this study:

1. Sample pavement surfaces closer to contract acceptance test work or when opening the section to traffic to determine the effects of specification changes on smoothness.
2. Split pavement type (JPCP or CRCP) from surface texture (DG), and include more surface textures, such as longitudinal tining and longitudinal grooving. If available in the data set, include other rigid pavement types, such as pre-cast panels.
3. Sample pavement types regularly to understand the durability of surface smoothness for different pavement types and textures.
4. Sample with wide spot lasers in both wheel paths. (Note: equipment was purchased at the start of the UCPRC 2017-2020 contract.)

REFERENCES

1. Chatti, K., and Zaabar, I. 2012. *Estimating the Effects of Pavement Condition on Vehicle Operating Costs* (Report Number 720). Washington, DC: Transportation Research Board. nap.edu/catalog/22808 /estimating-the-effects-of-pavement-condition-on-vehicle-operating-costs.
2. Wang, T., Harvey, J., and Kendall, A. 2015. *Network-Level Life-Cycle Energy Consumption and Greenhouse Gas from CAPM Treatments* (Research Report: UCPRC-RR-2014-05). Davis and Berkeley, CA: University of California Pavement Research Center. escholarship.org/uc/item/87q8x6j2.
3. Steyn, W.J., and du Plessis, L. 2014. *Freight-Truck-Pavement Interaction, Logistics, and Economics: Final Phase 1 Report (Tasks 9–11)* (Research Report: UCPRC-RR-2014-01). Davis and Berkeley, CA: University of California Pavement Research Center. escholarship.org/uc/item/7rx5v4sg.
4. California Department of Transportation. n.d. "2018 Standard Plans and Standard Specifications." Design. Accessed February 1, 2018. dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications.
5. California Department of Transportation. n.d. "Statement of Ongoing Contracts." Construction. Accessed May 3, 2016. dot.ca.gov/programs/construction/statement-of-ongoing-contracts.
6. California Department of Transportation. 2015. *2015 State of the Pavement Report*. Sacramento, CA: California Department of Transportation. dot.ca.gov/-/media/dot-media/programs/maintenance/documents/f0009632-2015-sop-7-9-12-22-15-final-revised-1-4-15-a11y.docx.

APPENDIX A: IRI TESTING FROM ALL SECTIONS, GROUPED BY TYPE

Appendix A presents graphs and tables that summarize the IRI testing conducted on 26 projects that produced 52 sections. Each graph shows the IRI over the project length, where a single point represents an average IRI over the 0.1 mi. protocol length. Each table lists the defective segments, defined as any length of pavement with an IRI measurement over 120 in./mi. from measurements in the right wheel path.

Each graph shows three lines: the trace of consecutive 0.1 mi. sections from the left and right wheel paths and the average of the left and right wheel paths. The upper right text box reports the average IRI and standard deviation over the left and right wheel paths and the average of the left and right wheel paths. (The average of the left and right wheel paths is also known as the Mean Roughness Index [MRI].) The left text box reports the pavement type (either diamond grind, continuously reinforced concrete pavement, or jointed plain concrete pavement), the contract acceptance date, and the sampling date. These graphs are grouped by pavement type.

The list of defective segments tables presents four pieces of data per entry: (1) the start location, (2) the stop location, (3) the IRI value, and (4) the segment length. Some sections have several hundred defective segments, and four columns of segment data are presented in each table. Each table page shows up to 248 segments. As discussed in Section 2.2, the list of defective segments come from the right wheel path only, as the right wheel path IRI is measured with a wide spot laser and the left wheel path IRI is measured with a point laser.

Diamond Grind Sections

Stanislaus 99 Northbound Lane 3 PM 6.8

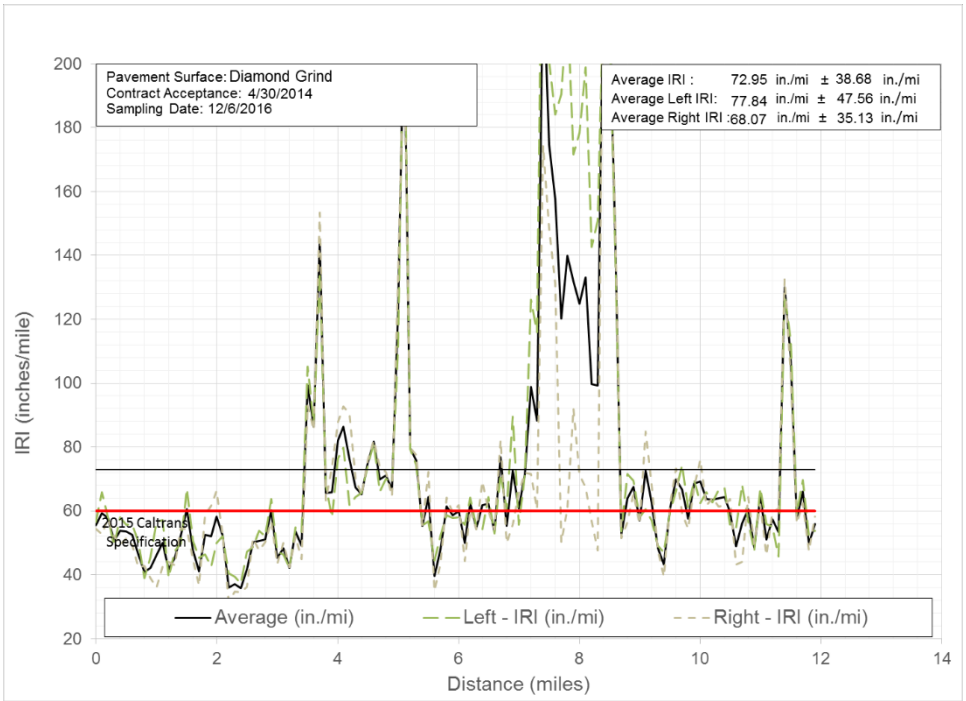

Figure A.1: Sta99N3PM6.8

Table A.1: Defective Segments from Sta99N3PM6.8

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
867	868	121	0.8	35661	35663	123	1.9	52813	52825	133	11.9				
875	879	122	3.9	35855	35856	123	1.7	54318	54342	137	23.5				
883	886	123	3.0	35880	35922	183	42.8	54347	54349	121	1.2				
2663	2691	176	27.1	36871	36872	121	0.8	55288	55295	129	7.3				
10060	10062	122	1.6	37435	37482	268	46.6	55300	55310	160	9.3				
18788	18890	482	102.4	37970	38000	155	30.0	55325	55328	127	2.6				
18893	18903	127	9.3	38017	38060	150	43.6	57372	57388	131	15.8				
18924	18925	120	0.4	38466	38467	121	1.1	57390	57391	120	0.7				
19472	19759	679	287.3	38470	38485	134	15.4	57629	57654	176	25.5				
20738	20741	123	2.3	39279	39535	664	256.3	60364	60369	129	5.2				
20760	20761	122	1.1	39539	39540	120	0.3	60379	60465	273	86.4				
20968	20972	128	3.3	39542	39620	582	78.2	60469	60525	215	56.4				
20987	20990	127	3.5	39702	39706	126	4.4	60530	60633	296	102.4				
21239	21240	121	0.9	39723	39725	121	1.3	60646	60679	218	33.6				
21523	21551	166	27.9	39731	39758	167	26.8	60683	60693	155	9.1				
21556	21624	240	67.7	39830	39834	130	4.3	60695	60806	386	110.8				
21712	21741	162	28.1	39921	40058	431	137.5	60809	60811	124	1.6				
21803	21805	123	2.5	40063	40065	126	2.3	60817	60886	243	68.6				
21808	21825	141	16.6	40066	40067	121	1.2	52813	52825	133	11.9				
21831	21832	121	1.1	40081	40159	236	78.3								
21878	21880	123	1.7	40204	40207	124	2.8								
21938	21974	145	35.5	40209	40225	160	15.9								
22337	22346	151	8.4	40235	40237	124	2.1								
22349	22354	123	5.0	40242	40271	186	28.4								
22379	22407	170	28.0	40326	40329	126	2.5								
22446	22447	123	1.6	40332	40458	507	126.6								
22491	22493	122	2.1	41155	41161	124	5.7								
22561	22579	143	17.6	41661	41677	135	15.6								
22612	22620	128	8.6	41793	41799	132	5.8								
24225	24231	128	5.5	41803	41804	120	0.7								
24275	24277	123	1.9	41895	41931	178	35.7								
24331	24367	175	36.5	42012	42077	271	64.7								
24771	24779	130	7.9	42231	42233	122	1.6								
24791	24793	122	2.0	42234	42242	127	7.5								
24808	24816	139	8.2	42338	42339	121	0.9								
24990	25034	186	43.9	42344	42350	127	6.3								
26482	26491	134	9.8	43227	43231	127	4.3								
26497	26505	133	8.1	43236	43238	123	2.4								
26790	26884	835	94.2	43276	43305	183	29.3								
26915	27011	509	96.2	44560	44893	809	332.8								
27088	27348	401	259.1	44910	45236	476	326.0								
27350	27356	126	6.2	45260	45313	390	53.2								
27362	27380	156	18.0	45317	45318	120	0.5								
27419	27495	225	76.0	45323	45382	649	59.6								
27648	27662	139	14.0	45400	45550	402	150.3								
28367	28375	127	7.8	45631	45673	213	41.3								
28386	28417	162	31.6	45680	45746	306	66.0								
28419	28423	127	4.4	45767	45793	154	25.6								
29176	29177	121	1.1	46844	46845	121	1.3								
29181	29185	122	4.5	48144	48161	143	17.3								
29212	29266	300	54.3	48163	48163	121	0.7								
30690	30696	134	6.4	48362	48363	121	1.4								
30979	30982	124	2.2	48368	48379	128	10.7								
30983	30983	121	0.6	48496	48543	241	47.2								
33777	33779	122	2.1	48665	48678	128	12.6								
33975	33990	133	14.3	48706	48715	130	9.0								
33993	33997	127	3.8	48997	49002	127	4.9								
34185	34196	136	10.5	50610	50637	169	27.3								
35396	35400	123	3.1	50976	50999	160	23.8								
35402	35410	133	8.0	52771	52778	133	6.6								
35622	35625	127	2.8	52780	52796	147	15.9								
35627	35629	123	2.3	52802	52809	128	7.5								

Stanislaus 99 Southbound Lane 3 PM 18.4

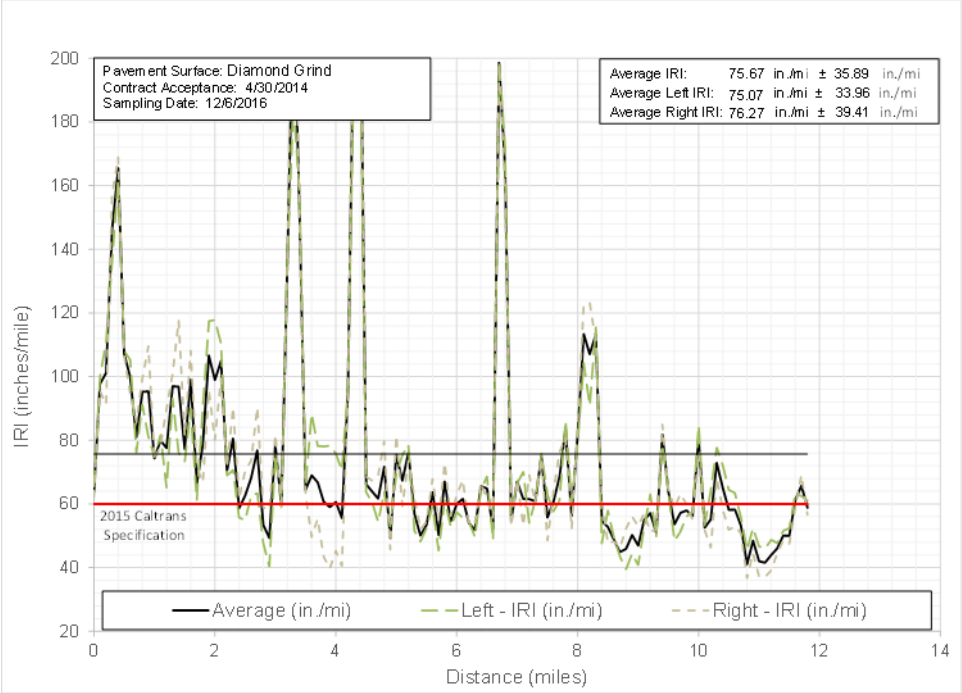

Figure A.2: Sta99S3PM18.4

Table A.2: Defective Segments from Sta99S3PM18.4

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
727	756	173	28.5	4494	4496	122	1.9	8733	8748	143	15.3	17173	17185	142	11.5
759	768	153	8.4	4499	4506	134	6.3	8832	8847	153	15.3	17211	17236	146	24.7
774	777	124	2.6	4751	4765	147	13.6	8854	8856	127	2.5	17246	17247	122	1.5
780	826	243	45.2	4765	4797	201	31.4	8887	8911	145	23.3	17259	17264	138	5.4
1015	1044	184	29.0	4828	4843	134	14.5	8921	8921	121	0.7	17275	17347	382	71.7
1049	1078	144	29.0	4869	4872	121	2.5	8925	8944	146	19.3	17371	17413	214	41.7
1095	1104	126	8.6	4908	4912	125	3.1	9314	9320	125	6.2	17424	17427	124	2.5
1107	1112	126	4.9	4974	4998	163	24.4	9951	9954	123	3.2	17429	17730	1172	301.8
1311	1324	131	13.7	5112	5115	124	2.2	10019	10020	121	1.6	17734	17804	198	69.9
1334	1337	127	3.0	5116	5168	169	52.1	10106	10121	137	14.4	17811	17912	233	101.7
1355	1386	209	31.9	5232	5274	231	41.5	10122	10123	120	0.4	17934	17937	125	3.2
1388	1406	161	18.7	5282	5288	128	5.8	10135	10153	146	18.4	17946	17959	152	12.6
1418	1423	126	4.7	5618	5633	145	15.2	10161	10244	186	83.1	17960	17971	137	11.7
1426	1428	123	2.9	5636	5641	132	5.3	10430	10441	133	11.2	17985	18073	344	87.5
1581	1584	127	3.5	6266	6275	143	8.7	10738	10776	155	38.0	18074	18076	121	1.5
1587	1636	174	49.8	6448	6449	124	1.6	10777	10786	131	9.4	18080	18230	537	149.8
1639	1669	191	29.9	6572	6580	133	8.6	10804	10805	121	0.9	18970	18981	141	11.0
1672	1685	142	13.1	6727	6733	125	5.4	10805	10813	130	7.8	19137	19150	148	13.8
1861	1939	342	78.6	6767	6768	122	1.7	10839	10849	142	10.1	22648	22826	735	177.7
1945	1961	155	16.2	6797	6824	153	26.7	10966	10981	152	15.1	22834	22895	184	60.6
1965	1994	177	29.3	6828	6854	191	26.4	11104	11107	124	3.5	22900	22904	134	3.5
1998	2111	484	112.3	6907	6931	165	24.4	11120	11121	122	1.6	22906	22958	233	52.2
2113	2224	430	110.8	6965	6965	120	0.5	11228	11250	138	22.1	22971	22974	128	3.9
2272	2273	120	0.5	7160	7162	121	1.6	11313	11316	123	3.4	22975	23012	226	36.6
2274	2285	143	10.7	7163	7169	134	5.7	11406	11412	127	5.5	23014	23143	826	129.4
2289	2365	733	76.0	7171	7178	132	7.5	11414	11430	143	16.3	23401	23476	1049	75.7
2518	2520	124	1.8	7182	7206	136	23.6	11467	11469	124	2.6	23479	23480	121	1.2
2522	2524	122	1.7	7260	7267	133	7.3	11471	11471	120	0.6	23508	23511	122	3.0
2525	2537	143	12.1	7275	7280	131	4.7	11472	11474	123	1.9	23512	23523	142	11.4
2604	2626	147	22.1	7319	7322	126	3.3	11478	11483	136	5.2	23553	23758	845	204.3
2801	2804	123	2.5	7327	7331	127	4.0	11526	11552	171	25.8	23766	23786	154	20.2
2874	2898	156	23.7	7333	7343	157	10.0	11580	11582	122	1.8	24059	24084	144	24.6
2905	2915	134	9.8	7348	7363	159	15.7	11626	11664	175	38.1	24765	24798	161	32.8
2923	2929	137	6.2	7364	7370	125	5.2	11719	11745	162	26.2	25456	25483	193	26.2
2954	2999	241	44.9	7370	7372	124	2.0	11748	11748	120	0.6	25520	25585	198	65.9
3019	3045	157	25.9	7416	7447	203	30.3	11789	11790	124	1.6	26471	26491	148	20.8
3079	3091	132	11.7	7534	7535	121	0.7	12175	12199	164	24.4	26492	26536	157	44.5
3109	3150	189	40.9	7537	7540	123	3.2	12212	12237	167	25.0	26812	26813	121	1.2
3150	3151	120	0.7	7543	7568	159	25.0	12253	12278	163	24.9	26819	26831	150	11.5
3204	3206	121	1.4	7569	7570	121	0.6	12403	12409	127	6.2	26870	26872	122	2.2
3209	3273	168	64.4	7582	7609	159	26.7	12422	12426	133	3.9	26881	26884	123	3.0
3275	3282	139	6.9	7616	7624	159	8.5	12602	12615	141	13.3	27637	27639	123	1.9
3311	3326	146	15.0	7637	7648	157	10.5	13214	13218	122	3.5	27730	27754	153	24.1
3328	3330	124	1.6	7648	7716	195	67.7	13336	13338	121	1.5	28084	28107	146	23.2
3551	3555	122	3.6	7717	7722	128	5.1	14135	14148	147	13.0	29984	30007	134	23.1
3590	3593	124	3.0	7732	7764	190	32.0	14297	14325	155	28.1	30011	30025	135	14.3
3677	3680	124	2.5	7779	7779	121	0.5	14336	14338	124	1.9	30623	30646	150	23.7
3708	3729	140	20.8	7808	7838	183	30.3	14350	14351	122	1.1	31858	31859	121	0.8
3878	3885	126	7.4	7960	7984	150	24.4	14352	14354	121	1.1	32618	32646	147	27.6
3892	3895	123	2.9	8388	8389	120	1.0	14365	14366	121	0.9	32908	32928	132	20.5
3901	3905	122	3.2	8389	8391	123	2.1	14369	14406	255	37.4	34429	34431	123	1.7
4035	4038	125	2.4	8435	8461	157	25.9	14488	14502	152	13.9	34874	34881	128	7.4
4140	4141	120	0.7	8531	8555	168	23.5	14528	14534	124	6.1	35435	35702	752	267.1
4142	4152	136	9.4	8582	8584	123	2.2	14924	14984	148	59.8	35902	35994	737	91.9
4152	4153	121	1.1	8585	8606	152	20.8	14984	14998	140	13.3	36001	36036	211	35.5
4271	4279	146	8.2	8623	8625	121	1.8	16127	16164	171	37.2	36041	36068	189	27.5
4312	4339	158	26.5	8626	8627	121	1.3	16266	16274	135	8.3	36073	36145	548	72.1
4347	4392	190	44.8	8634	8636	121	1.6	16762	16777	131	15.2	37032	37036	124	3.8
4420	4431	139	11.4	8664	8688	154	24.4	16779	16806	144	26.4	37095	37099	123	3.9
4457	4469	141	11.5	8704	8713	133	8.3	16901	16910	129	9.1	17173	17185	142	11.5
4479	4483	132	4.7	8717	8717	120	0.5	16989	17012	153	23.8	17211	17236	146	24.7
4485	4492	126	6.6	8719	8730	144	11.8	17096	17146	406	50.2	17246	17247	122	1.5

Table A.2: Sta99S3PM18.4 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
17259	17264	138	5.4	39112	39128	134	15.3								
17275	17347	382	71.7	39134	39139	127	4.3								
17371	17413	214	41.7	39140	39142	121	1.4								
17424	17427	124	2.5	39156	39160	130	4.1								
17429	17730	1172	301.8	40768	40784	136	15.3								
17734	17804	198	69.9	40787	40787	120	0.2								
17811	17912	233	101.7	41074	41079	125	4.7								
17934	17937	125	3.2	41085	41095	132	9.4								
17946	17959	152	12.6	41100	41103	124	3.3								
17960	17971	137	11.7	41255	41282	209	27.7								
17985	18073	344	87.5	41325	41333	134	7.6								
18074	18076	121	1.5	41344	41350	133	6.1								
18080	18230	537	149.8	41355	41363	130	7.2								
18970	18981	141	11.0	41364	41370	130	5.7								
19137	19150	148	13.8	41384	41391	125	7.5								
22648	22826	735	177.7	41393	41420	146	27.0								
22834	22895	184	60.6	42329	42350	143	20.8								
22900	22904	134	3.5	43235	43341	949	105.9								
22906	22958	233	52.2	43366	43407	234	41.1								
22971	22974	128	3.9	43425	43496	582	71.6								
22975	23012	226	36.6	43980	43986	141	6.1								
23014	23143	826	129.4	43990	44046	394	55.9								
23401	23476	1049	75.7	44046	44129	358	83.3								
23479	23480	121	1.2	44148	44150	121	1.5								
23508	23511	122	3.0	44150	44157	124	6.7								
23512	23523	142	11.4	49584	49592	137	8.6								
23553	23758	845	204.3	49633	49658	152	24.9								
23766	23786	154	20.2	49739	49793	225	53.8								
24059	24084	144	24.6	49805	49811	126	6.1								
24765	24798	161	32.8	51086	51090	122	4.1								
25456	25483	193	26.2	51215	51219	127	3.6								
25520	25585	198	65.9	53027	53029	123	1.7								
26471	26491	148	20.8	53030	53048	132	17.6								
26492	26536	157	44.5	54530	54535	125	4.5								
26812	26813	121	1.2	54537	54551	138	13.9								
26819	26831	150	11.5	54565	54619	279	54.4								
26870	26872	122	2.2	55112	55149	238	37.2								
26881	26884	123	3.0	60179	60189	127	9.8								
27637	27639	123	1.9	61795	61799	122	3.3								
27730	27754	153	24.1	61800	61804	122	3.4								
28084	28107	146	23.2	61822	61842	134	19.1								
29984	30007	134	23.1												
30011	30025	135	14.3												
30623	30646	150	23.7												
31858	31859	121	0.8												
32618	32646	147	27.6												
32908	32928	132	20.5												
34429	34431	123	1.7												
34874	34881	128	7.4												
35435	35702	752	267.1												
35902	35994	737	91.9												
36001	36036	211	35.5												
36041	36068	189	27.5												
36073	36145	548	72.1												
37032	37036	124	3.8												
37095	37099	123	3.9												
38444	38457	146	13.1												
38459	38463	122	3.4												
38482	38503	166	20.3												
39071	39076	134	5.3												
39092	39093	120	0.8												

Orange 22 Eastbound Lane 4 PM 1.1

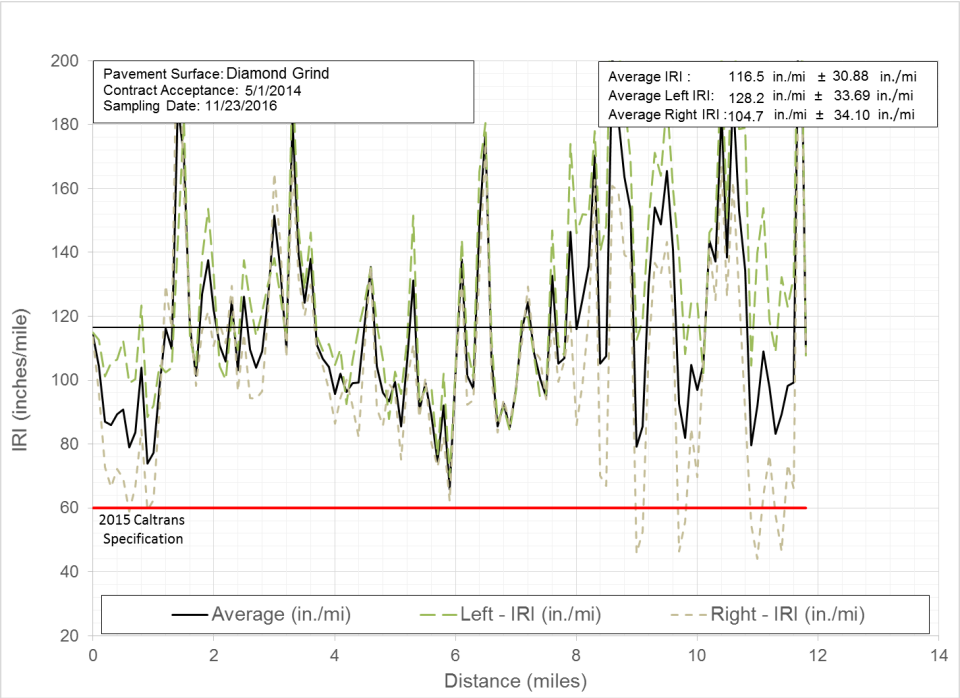

Figure A.3: Ora22E4PM1.1

Table A.3: Defective Segments from Ora22E4PM1.1

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	23	152	10.5	7055	7055	121	0.7	10187	10211	160	23.8	13153	13154	122	1.5
42	83	170	40.3	7090	7123	184	33.2	10241	10245	124	4.0	13167	13173	128	5.2
84	92	138	8.4	7135	7160	171	25.0	10248	10254	134	6.0	13175	13183	127	8.0
230	238	133	8.4	7173	7184	126	10.9	10261	10263	121	1.5	13213	13215	122	1.4
239	249	137	10.4	7189	7192	130	3.1	10276	10276	120	0.2	13218	13225	126	7.4
284	335	193	51.5	7291	7317	187	26.7	10289	10291	121	1.6	13397	13400	125	3.0
370	372	124	2.3	7354	7371	146	17.1	10292	10299	130	7.0	13401	13404	124	2.7
383	391	131	7.7	7430	7692	515	261.6	10304	10323	144	18.3	13406	13417	142	11.2
392	394	123	1.5	7696	7763	651	67.1	10344	10401	193	56.8	13419	13420	122	1.1
420	437	154	17.2	7775	7881	493	105.9	10440	10480	198	40.4	13447	13482	139	34.7
455	461	128	5.4	7894	7919	147	24.7	10485	10522	198	36.5	13484	13485	121	0.7
461	478	152	16.8	7931	7981	377	49.9	10567	10572	130	5.0	13486	13495	134	9.0
531	573	237	42.5	8051	8084	165	32.6	10574	10583	140	8.8	13496	13499	124	3.4
583	618	149	34.9	8091	8098	132	6.3	10586	10603	149	17.8	13503	13511	132	7.9
624	625	121	1.1	8126	8154	175	27.7	10633	10675	189	42.5	13526	13567	184	40.8
627	628	121	0.8	8195	8255	812	60.0	10690	10714	146	24.0	13571	13579	130	7.9
655	678	156	23.3	8255	8261	133	5.3	10937	10971	213	33.7	13627	13675	185	48.1
738	744	129	6.1	8265	8325	191	59.9	10972	10972	120	0.4	13678	13680	124	2.0
749	752	123	3.3	8330	8335	133	5.2	10979	10994	131	15.7	13682	13683	121	1.1
1552	1554	126	2.5	8349	8353	126	3.1	10997	10998	120	1.2	13696	13702	130	6.2
1555	1557	123	2.1	8353	8355	124	2.0	11023	11047	158	24.5	13705	13706	122	1.1
2186	2188	126	2.5	8485	8526	162	40.5	11058	11077	139	19.4	13707	13712	131	4.5
2189	2191	123	1.7	8527	8528	122	1.1	11116	11140	140	24.0	13714	13755	156	41.2
2403	2409	127	6.0	8547	8548	122	1.1	11158	11162	128	4.1	13775	13778	126	2.9
2623	2623	120	0.4	8562	8594	167	32.2	11241	11253	133	12.1	13780	13783	124	3.4
2934	2968	191	34.0	8596	8597	124	1.6	11264	11266	125	1.9	13786	13800	128	13.9
3126	3128	125	1.9	8614	8617	124	3.5	11271	11271	120	0.2	14049	14073	159	23.1
3149	3155	132	6.3	8631	8635	125	3.5	11275	11276	121	1.2	14073	14074	121	1.1
3157	3162	123	5.2	8639	8716	175	77.8	11277	11284	132	7.1	14081	14087	129	5.4
3188	3214	149	26.3	8739	8746	128	6.4	11315	11316	120	0.6	14100	14105	133	5.1
3486	3494	135	7.8	8748	8749	123	1.5	11328	11353	160	25.7	14182	14204	170	22.1
4014	4035	138	20.7	8752	8756	126	4.2	11392	11427	167	34.9	14375	14383	129	8.0
4106	4127	150	20.3	8777	8784	122	7.1	11432	11457	166	25.7	14385	14386	121	0.9
4280	4304	149	23.5	8785	8824	151	38.5	11498	11559	181	61.4	14481	14482	120	0.2
4348	4359	129	11.6	8905	8951	185	46.2	11566	11579	137	12.7	14484	14493	140	9.6
4434	4477	208	43.1	9151	9165	141	13.9	11582	11616	176	34.1	14495	14496	121	0.8
4650	4655	128	5.2	9167	9193	153	25.9	11693	11773	242	80.3	14498	14505	133	7.0
5107	5107	120	0.7	9222	9224	123	2.4	11790	11828	154	37.6	14561	14564	127	3.1
5807	5830	153	23.4	9243	9245	126	2.2	11832	11837	126	5.5	14565	14569	129	3.5
5858	5871	131	13.3	9249	9249	120	0.1	11838	11839	121	1.1	14579	14582	127	2.3
5873	5875	124	2.2	9312	9338	168	25.8	11875	11890	142	14.6	14583	14589	127	6.6
6157	6160	126	3.0	9477	9480	125	3.2	11940	11943	122	2.1	14598	14600	122	1.7
6162	6162	120	0.2	9534	9561	149	27.0	11944	11949	133	4.5	14704	14705	121	1.1
6169	6177	135	8.0	9572	9620	174	48.5	11951	11956	123	4.6	14713	14723	146	10.6
6304	6307	124	2.6	9631	9635	131	4.2	11992	12014	145	21.7	14971	15024	197	53.2
6363	6401	160	38.1	9636	9644	130	8.0	12034	12062	177	27.4	15027	15028	122	1.5
6407	6411	126	4.8	9652	9653	122	1.3	12159	12161	122	2.3	15071	15082	136	10.9
6521	6532	150	11.2	9679	9722	168	43.1	12163	12176	140	13.5	15083	15096	131	12.2
6567	6587	156	20.3	9773	9778	128	5.2	12283	12393	264	109.7	15255	15308	198	52.6
6624	6669	240	44.7	9780	9783	126	3.4	12411	12427	146	16.9	15418	15420	124	2.1
6687	6688	121	0.9	9787	9792	128	6.0	12430	12437	131	6.6	15557	15558	122	1.5
6690	6764	262	74.2	9818	9824	126	5.6	12452	12455	122	2.5	15649	15658	128	9.2
6774	6776	124	2.1	9827	9827	120	0.3	12456	12485	187	28.5	15659	15809	425	150.3
6779	6799	143	19.9	9829	9837	132	7.2	12541	12551	130	9.4	15819	15823	133	4.1
6806	6859	194	53.1	9863	9914	200	51.0	12560	12567	129	6.7	15824	15856	167	32.2
6888	6917	191	29.0	9918	9945	158	27.8	12570	12672	223	102.0	15867	15900	268	32.2
6919	6921	125	1.9	10047	10056	135	8.5	12743	12755	138	11.7	15904	16113	337	208.4
6930	6956	159	26.0	10062	10066	125	3.7	12893	12907	133	14.1	16120	16121	122	1.1
6979	6997	149	17.8	10081	10109	140	28.0	12910	12911	120	0.7	16123	16148	162	24.9
6999	7003	127	3.4	10125	10126	121	1.0	12943	12945	126	2.6	16174	16176	126	2.5
7032	7036	129	3.6	10128	10129	123	1.9	12966	12968	124	1.7	16178	16200	142	22.0
7040	7050	132	9.3	10149	10153	130	4.6	13094	13119	153	24.7	16200	16203	128	2.7

Table A.3: Defective Segments from Ora22E4PM1.1 (2 of 4)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
16218	16297	164	78.2	18549	18551	122	1.5	22362	22398	190	35.6	27575	27576	122	1.5
16299	16307	130	8.4	18553	18555	125	2.5	22400	22404	124	3.7	27608	27610	124	2.1
16308	16339	167	30.6	18585	18610	159	25.7	22456	22507	235	50.9	27663	27668	130	5.0
16353	16355	122	1.4	18784	18794	138	10.4	22511	22517	139	6.3	27674	27674	120	0.5
16359	16361	121	1.6	18800	18862	193	62.2	22519	22523	124	3.8	27842	27843	123	1.5
16362	16376	140	14.7	18879	18944	253	64.2	22611	22616	132	4.8	27862	27862	120	0.4
16381	16387	134	5.8	18961	18979	155	18.1	22716	22722	131	6.3	27892	27918	149	26.2
16388	16392	130	3.4	18992	19032	178	39.7	22735	22737	124	2.3	27919	27928	130	9.0
16394	16395	120	0.2	19069	19154	396	85.1	22763	22795	200	32.2	27967	27974	131	6.6
16400	16419	137	19.1	19174	19235	255	61.4	22796	22798	123	2.2	27999	28014	146	15.3
16420	16465	152	45.1	19259	19279	136	20.5	22799	22809	139	10.0	28089	28091	125	2.2
16470	16483	142	13.4	19398	19404	125	5.7	22816	22838	162	22.1	28096	28096	120	0.5
16489	16496	135	6.4	19405	19409	130	3.3	23092	23107	157	15.4	28119	28132	135	13.5
16509	16514	127	4.8	19411	19422	135	11.2	23132	23162	151	30.9	28133	28141	142	8.4
16518	16524	133	6.2	19523	19553	200	30.3	23169	23169	120	0.3	28165	28194	202	28.8
16528	16554	154	26.0	19644	19663	161	19.8	23608	23615	130	6.8	28220	28245	179	25.3
16583	16590	132	6.8	19755	19777	188	22.7	23647	23657	134	9.8	28256	28324	227	67.9
16593	16593	120	0.6	19832	19855	153	22.9	23894	23895	121	0.7	28328	28343	137	14.2
16596	16608	139	12.0	19927	19992	184	65.8	23900	23903	123	2.7	28347	28355	125	7.6
16610	16620	129	10.2	19997	20027	174	29.5	23921	23946	175	25.7	28365	28376	127	10.4
16663	16707	227	43.6	20034	20089	158	55.8	23968	23970	122	1.4	28380	28383	124	2.5
16718	16830	253	112.5	20300	20332	201	31.7	23975	24007	174	31.8	28530	28566	205	35.9
16838	16881	235	42.9	20352	20361	137	9.7	24130	24152	161	21.9	28832	28865	157	32.4
16941	16943	122	1.6	20362	20363	121	0.9	24162	24278	247	116.1	28870	28879	139	9.3
16943	16972	144	28.6	20416	20419	127	2.6	24283	24440	498	157.4	28885	28912	151	27.3
16978	16986	132	8.1	20420	20457	184	37.1	24446	24459	159	13.5	28912	28914	124	2.1
16987	16996	130	8.9	20491	20493	121	1.6	24464	24495	163	31.4	29044	29048	131	3.4
17007	17010	123	2.5	20495	20499	127	3.7	24783	24809	149	25.3	29108	29114	128	5.7
17057	17115	174	58.2	20542	20585	178	43.4	24998	24999	122	1.1	29240	29242	122	1.6
17176	17181	130	4.6	20592	20593	121	0.7	24999	25022	165	22.5	29248	29276	160	27.2
17187	17194	138	6.6	20670	20675	129	4.5	25060	25082	160	21.7	29288	29313	161	25.3
17210	17214	137	4.8	20680	20692	141	12.3	25214	25215	122	1.1	29484	29514	187	30.2
17216	17217	122	1.6	20795	20798	123	2.4	25293	25296	129	3.4	29534	29574	226	39.1
17219	17220	121	1.0	20798	20810	136	11.6	25301	25340	213	38.8	29658	29694	206	36.6
17228	17233	128	4.6	20812	20816	135	3.6	25348	25349	120	0.8	30375	30397	154	21.9
17282	17295	133	13.0	20877	20879	121	2.1	25352	25353	121	1.5	30719	30762	193	42.3
17352	17372	137	19.9	20885	20886	121	1.1	25357	25384	213	27.0	30799	30823	148	23.9
17410	17489	238	78.9	20928	20934	125	6.6	25432	25438	137	6.0	31088	31132	162	44.2
17491	17495	123	3.5	20936	20975	155	39.0	25450	25452	121	1.9	31953	31984	216	30.9
17496	17497	122	1.6	21006	21027	146	20.8	25719	25734	158	14.4	31986	31987	122	1.1
17518	17610	199	92.3	21140	21146	137	6.0	25759	25784	180	24.8	31998	31999	121	1.1
17616	17694	233	78.3	21152	21157	123	5.3	25859	25867	140	8.4	32062	32068	135	6.1
17696	17853	391	156.5	21158	21158	120	0.4	25881	25907	179	26.2	32092	32387	281	294.5
17861	17869	125	8.4	21158	21164	131	6.2	25924	25975	162	50.8	32388	32398	139	10.1
17879	17882	127	3.4	21229	21230	121	1.1	26064	26071	128	6.4	32399	32400	120	0.2
17883	17886	125	2.8	21263	21266	121	2.8	26184	26191	132	7.6	32426	32512	257	86.0
17886	17935	169	49.3	21300	21323	161	22.6	26194	26212	167	17.6	32539	32554	133	14.9
17964	17968	125	4.2	21599	21605	134	6.0	26215	26252	185	36.7	32769	32774	133	5.1
18012	18031	148	18.7	21609	21611	122	2.3	26256	26284	201	28.3	32860	32863	128	2.5
18047	18140	266	92.4	21612	21613	120	0.8	26421	26424	123	3.3	32864	32889	184	24.9
18170	18172	123	2.0	21732	21773	211	40.6	26429	26443	144	13.5	32891	32899	139	8.0
18173	18175	125	2.0	21810	21810	120	0.7	26490	26493	125	2.9	32906	32917	133	11.2
18207	18214	136	6.7	21831	21833	122	1.1	26504	26544	203	40.4	33073	33079	129	6.6
18219	18232	154	12.6	21835	21845	135	9.8	26567	26591	179	23.8	33131	33132	121	0.8
18237	18316	288	79.5	21846	21847	120	0.4	26701	26726	158	24.9	33135	33138	131	3.4
18357	18358	121	0.7	21881	21928	154	47.5	26728	26755	189	26.4	33147	33149	122	1.2
18401	18401	120	0.4	22206	22217	135	10.7	27299	27318	143	19.2	33152	33160	128	8.0
18403	18415	135	11.6	22219	22220	123	1.4	27337	27338	122	1.6	33200	33227	144	26.4
18420	18421	120	0.7	22222	22230	134	7.7	27342	27349	128	7.6	33229	33236	128	7.0
18421	18423	123	2.0	22292	22313	143	20.8	27359	27360	120	0.4	33238	33239	121	1.1
18518	18523	125	5.0	22330	22351	143	20.8	27499	27531	184	31.7	33380	33383	123	2.9

Table A.3: Defective Segments from Ora22E4PM1.1 (3 of 4)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
33465	33474	136	8.5	37642	37673	162	31.1	40736	40760	151	24.4	43869	43899	213	29.7
33535	33542	141	6.5	37707	37725	138	17.5	40844	40846	125	2.6	43900	43906	133	6.4
33631	33633	124	2.1	37907	38006	187	99.5	40852	40865	147	12.8	43912	43980	216	67.8
33705	33716	140	11.2	38008	38050	169	42.5	40924	40925	120	0.5	43983	43983	120	0.5
33739	33764	155	24.8	38051	38052	121	0.9	40926	40966	173	40.2	43997	44025	187	27.6
33951	33981	173	30.3	38065	38110	237	44.4	40968	40978	144	9.4	44062	44068	144	6.2
34031	34053	139	21.5	38120	38142	160	21.9	41061	41086	179	24.6	44079	44151	309	72.3
34059	34090	159	30.8	38179	38182	124	2.5	41187	41196	140	8.9	44177	44207	197	29.7
34092	34108	151	16.2	38197	38200	130	3.0	41197	41202	130	4.9	44235	44243	124	7.1
34113	34118	131	5.3	38238	38241	130	2.6	41211	41213	121	1.6	44247	44322	321	74.7
34134	34138	126	4.7	38283	38403	211	119.8	41231	41246	132	14.1	44330	44338	146	7.9
34147	34178	212	30.6	38405	38430	153	25.0	41249	41253	130	4.1	44340	44341	121	1.0
34202	34433	432	231.0	38528	38530	125	2.5	41282	41307	148	25.3	44342	44357	158	15.1
34433	34441	127	7.5	38536	38552	150	16.5	41336	41358	153	21.3	44357	44359	125	1.7
34454	34632	345	177.2	38645	38668	162	23.3	41402	41412	130	9.7	44361	44368	140	6.6
34633	34657	165	24.3	38692	38693	120	0.7	41414	41428	144	13.9	44516	44522	124	6.0
34697	34740	187	43.0	38701	38703	126	2.7	41429	41442	134	13.3	44703	44714	143	11.7
34746	34750	131	4.4	38707	38745	166	37.6	41529	41545	142	15.4	44888	44894	123	6.1
34754	34764	131	9.4	38749	38758	131	8.9	41591	41607	148	16.3	45090	45104	138	13.8
34769	34847	370	78.3	38759	38775	143	15.9	41672	41691	140	19.1	45110	45112	123	1.7
34849	34890	175	40.9	38782	38786	133	3.9	41702	41705	129	3.4	45117	45148	191	30.2
34897	34903	132	5.6	38787	38793	126	6.4	41722	41727	132	4.6	45149	45151	121	1.4
34906	34922	144	16.3	38797	38808	140	10.6	41728	41789	181	61.1	45402	45439	424	37.6
34959	34970	138	10.3	38830	38833	123	2.9	41790	41792	123	2.1	45453	45644	462	190.5
34974	34979	125	4.2	38871	38872	122	1.2	41813	41816	123	2.4	45646	45664	138	18.1
34997	35021	172	24.6	38880	38895	143	14.4	41884	41962	267	77.1	46018	46076	390	58.7
35055	35083	190	28.5	38899	38901	125	2.3	41978	42001	156	22.9	46094	46096	123	1.6
35123	35125	127	2.5	38913	38947	167	34.1	42074	42078	124	3.9	46097	46172	185	74.7
35130	35146	143	16.3	38955	38969	140	13.2	42080	42088	128	8.0	46184	46231	375	46.9
35156	35175	137	18.6	39003	39028	140	25.0	42092	42093	120	0.7	46235	46243	140	8.0
35210	35211	121	0.7	39077	39084	142	7.3	42134	42161	151	26.4	46288	46327	195	38.5
35480	35507	168	26.7	39092	39097	126	5.2	42486	42487	122	1.0	46351	46412	295	61.9
35508	35510	125	1.6	39097	39151	156	53.5	42488	42489	121	1.1	46425	46491	241	65.6
35522	35526	126	4.2	39152	39165	142	12.7	42490	42493	122	2.9	46500	46506	136	6.1
35697	35698	122	2.0	39172	39175	125	3.2	42503	42506	128	2.5	46507	46544	222	36.8
35700	35719	151	19.4	39195	39247	187	51.5	42584	42607	151	22.5	46560	46658	482	98.0
35897	35904	131	7.6	39361	39374	146	12.6	42689	42692	122	3.2	46935	47021	438	85.7
36074	36110	150	36.3	39383	39385	122	2.2	42695	42708	145	13.4	47049	47255	456	205.8
36110	36116	128	5.4	39408	39416	131	8.4	42743	42746	126	2.3	48272	48283	131	10.3
36285	36286	122	1.6	39418	39432	142	14.0	42748	42757	134	9.1	48289	48293	126	3.7
36288	36290	121	1.6	39438	39448	138	10.1	42759	42764	128	5.3	48301	48303	122	2.2
36292	36300	128	8.4	39750	39753	121	2.6	42766	42768	123	1.9	48820	48870	347	50.6
36329	36357	168	28.1	39990	40009	153	19.9	42770	42774	133	3.6	48875	48922	227	47.0
36361	36418	218	57.4	40060	40093	225	32.6	42785	42835	157	49.8	48938	49067	235	129.7
36443	36457	145	13.7	40138	40139	121	0.8	42848	42850	123	1.3	49134	49191	309	56.8
36545	36545	120	0.6	40177	40193	150	17.0	42850	42872	146	22.5	49244	49256	130	11.3
36679	36693	138	13.8	40199	40227	152	28.7	43086	43091	124	5.7	49263	49287	145	23.5
36694	36705	130	10.2	40229	40230	122	1.3	43092	43093	121	1.1	49338	49352	145	14.1
36822	36827	125	5.0	40232	40243	130	10.4	43106	43132	163	26.1	49415	49418	126	3.0
36828	36829	120	0.6	40253	40254	122	1.5	43263	43263	120	0.2	49420	49438	136	18.0
36995	37022	152	26.6	40297	40302	128	5.1	43268	43288	167	19.8	49465	49468	123	3.1
37024	37026	124	1.6	40342	40359	139	17.6	43288	43289	120	0.9	49530	49636	291	106.4
37233	37235	123	2.4	40388	40391	123	3.6	43290	43291	121	1.3	49791	49816	159	25.6
37241	37253	140	12.2	40403	40418	138	14.5	43292	43300	140	7.5	49954	50111	577	157.2
37361	37362	123	1.4	40419	40427	148	7.1	43302	43332	199	30.1	50134	50144	128	9.7
37366	37373	129	7.1	40501	40503	121	2.0	43484	43487	127	2.5	50155	50196	162	41.2
37375	37390	140	15.3	40505	40506	121	0.8	43581	43661	338	79.5	50198	50200	127	2.3
37447	37477	171	29.4	40538	40569	200	31.3	43681	43710	231	29.9	50211	50371	347	160.3
37480	37482	121	1.8	40570	40641	262	70.7	43712	43738	185	26.2	50497	50502	127	5.1
37500	37541	187	40.7	40662	40688	160	26.4	43745	43771	183	25.4	50513	50544	167	30.7
37578	37604	165	26.3	40694	40698	126	4.0	43840	43862	160	21.9	50578	50634	181	56.6

Table A.3: Defective Segments from Ora22E4PM1.1 (4 of 4)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
50704	50853	348	149.0	62390	62392	123	2.8								
50854	50865	130	10.5	62418	62444	146	25.6								
51029	51030	120	0.3	62571	62574	122	2.7								
52157	52166	133	8.4	62613	62636	152	22.6								
52274	52275	123	1.6												
52329	52338	147	9.1												
52341	52354	169	13.5												
52361	52369	127	7.5												
52689	52707	134	17.3												
52708	52713	128	5.0												
53280	53302	161	22.3												
53390	53392	127	3.0												
53397	53424	164	26.4												
53474	53516	224	41.3												
53572	53578	129	5.7												
53586	53625	215	39.3												
53636	53705	259	69.1												
54080	54183	234	103.0												
54183	54210	161	26.9												
54216	54220	123	3.6												
54238	54268	168	29.7												
54277	54348	360	71.5												
54356	54585	381	228.4												
54992	55046	237	54.2												
55066	55196	892	129.8												
55217	55291	333	73.8												
55293	55317	167	23.9												
55596	55614	144	18.6												
55618	55618	121	0.7												
55737	55981	385	243.9												
56004	56171	615	166.6												
56438	56543	501	105.2												
56604	56605	122	1.1												
56646	56668	150	21.9												
56671	56677	126	6.2												
56680	56759	399	79.5												
57012	57020	137	8.2												
57024	57032	138	7.9												
57044	57044	120	0.2												
57252	57280	205	27.9												
57291	57294	123	2.7												
57295	57298	128	2.7												
57308	57312	134	3.5												
57332	57334	123	2.0												
57342	57383	240	41.2												
58889	58891	124	2.5												
59022	59053	264	30.6												
59370	59377	127	6.4												
59385	59469	308	84.2												
60002	60003	121	1.0												
60896	60919	148	23.0												
61116	61150	194	34.0												
61260	61275	136	15.3												
61327	61329	122	1.1												
61344	61356	136	11.5												
61356	61358	121	1.6												
61499	61513	133	13.5												
61862	62338	773	475.6												
62341	62367	172	26.2												
62370	62370	120	0.2												
62371	62375	127	4.1												

Orange 22 Westbound Lane 4 PM 13.2

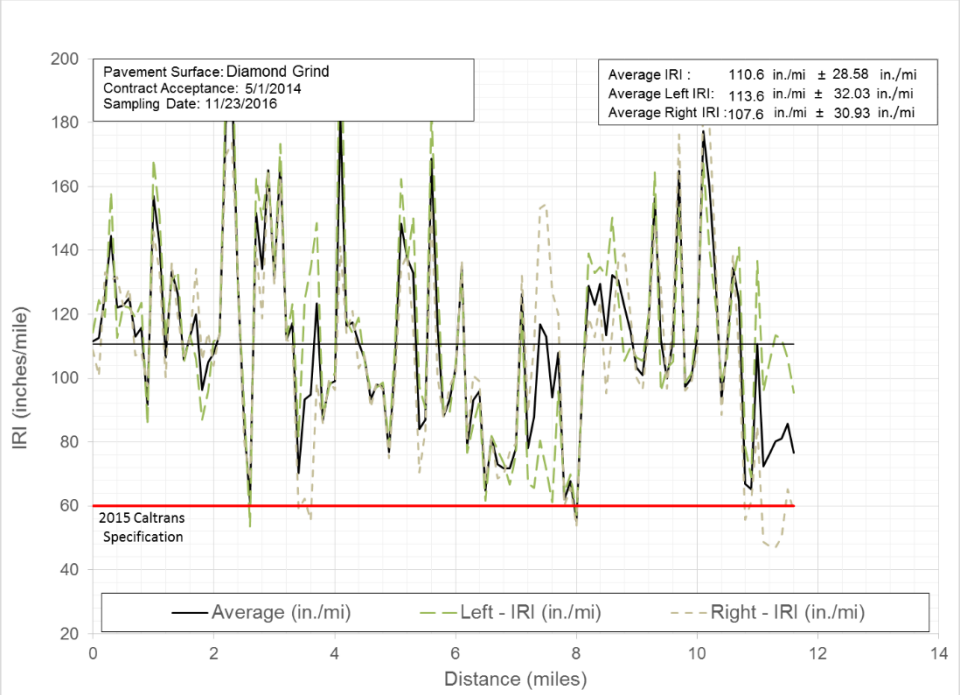

Figure A.4: Ora22W4PM13.2

Table A.4: Defective Segments from Ora22W4PM13.2

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	14	124	1.9	2744	2796	201	52.2	6216	6242	157	26.0	9959	9994	251	35.3
23	25	121	1.8	2797	2914	181	116.2	6244	6250	133	6.4	10007	10060	192	53.1
72	152	235	81.0	2926	2956	174	30.5	6255	6257	124	2.1	10074	10098	151	23.5
204	242	160	38.6	2977	2998	154	20.8	6299	6301	127	2.4	10153	10160	130	7.8
313	337	148	24.0	3028	3031	127	2.5	6313	6318	130	5.3	10189	10190	121	0.9
578	610	188	32.5	3071	3075	130	4.3	6356	6364	124	8.4	10192	10195	124	2.5
618	621	124	2.5	3094	3096	123	1.7	6372	6378	139	6.6	10197	10222	160	25.6
622	624	124	2.5	3115	3115	120	0.4	6390	6401	162	11.2	10232	10234	134	2.8
672	686	149	14.2	3141	3172	189	31.2	6408	6414	130	5.8	10249	10278	238	29.4
810	818	128	7.9	3204	3234	158	30.3	6465	6467	122	1.4	10294	10320	171	26.1
821	823	123	2.0	3303	3306	127	2.9	6705	6729	168	23.7	10324	10327	123	2.5
827	831	135	3.9	3320	3376	333	56.2	6739	6784	185	44.4	10373	10379	125	5.6
849	850	120	0.7	3407	3408	121	0.8	6801	6838	188	37.5	10450	10456	127	5.2
871	872	122	1.5	3411	3445	161	34.0	6878	7028	303	149.9	10578	10586	128	8.0
910	915	134	5.5	3447	3475	185	28.6	7029	7029	121	0.7	10587	10603	140	15.4
917	926	128	8.4	3493	3529	191	35.1	7082	7108	152	25.3	10610	10613	125	3.1
979	981	122	1.6	3530	3545	140	15.5	7125	7180	183	55.0	10615	10633	139	17.6
1019	1020	122	1.5	3551	3558	141	7.0	7189	7197	135	8.0	10635	10637	124	2.0
1027	1029	122	1.9	3592	3607	144	15.3	7198	7210	128	12.4	10718	10725	130	7.5
1030	1035	129	4.6	3608	3615	134	7.2	7275	7277	125	2.1	10885	10890	127	5.2
1036	1089	223	53.2	3706	3713	128	6.7	7302	7304	124	1.6	10917	10952	321	34.8
1090	1092	125	2.0	3746	3837	175	90.5	7339	7345	127	6.0	11030	11048	139	17.6
1112	1115	127	3.0	3844	3850	139	6.4	7349	7364	146	15.0	11092	11126	183	34.4
1118	1120	123	1.9	3854	3871	158	16.8	7456	7550	280	93.2	11127	11130	129	3.4
1122	1173	160	50.9	3874	3877	124	3.4	7572	7588	139	15.9	11131	11188	181	56.5
1208	1217	138	9.1	4033	4052	155	18.7	7603	7657	266	54.5	11194	11196	126	2.3
1290	1322	200	31.9	4153	4168	147	15.1	7807	7860	209	52.7	11290	11320	163	30.3
1339	1341	123	2.1	4257	4278	156	20.9	7885	7911	184	25.9	11386	11387	122	1.4
1346	1349	128	3.9	4279	4325	187	45.9	7949	7971	141	22.2	11388	11443	208	55.4
1356	1396	153	39.7	4345	4346	120	0.7	7993	8040	186	46.5	11451	11453	122	2.5
1431	1486	234	54.4	4349	4353	125	3.4	8165	8199	220	34.0	11454	11480	163	26.0
1498	1499	125	1.1	4361	4363	124	2.7	8224	8254	221	30.0	11514	11535	144	20.8
1500	1562	175	61.9	4474	4499	146	24.8	8386	8396	133	9.9	11676	11698	143	21.7
1564	1603	170	38.2	4531	4543	129	11.6	8398	8400	122	1.6	11768	11788	142	19.9
1631	1643	139	11.6	4575	4576	120	0.8	8450	8478	185	28.3	11792	11793	122	1.1
1651	1654	125	2.7	4579	4581	123	1.4	8486	8490	123	3.8	11804	11807	124	2.6
1747	1762	147	15.1	4589	4595	129	6.4	8540	8554	144	14.8	11809	11933	412	124.0
1764	1767	125	3.2	4596	4599	128	3.2	8557	8586	178	28.9	11935	12068	228	133.2
1792	1860	239	67.7	4601	4604	129	3.0	8599	8604	132	5.0	12078	12080	121	1.6
1864	1915	281	51.2	4605	4606	121	1.0	8605	8628	162	23.0	12080	12163	356	82.7
1920	1993	195	72.8	4609	4613	124	4.3	8646	8656	135	10.6	12175	12201	170	25.4
2049	2051	122	1.2	4638	4640	121	2.3	8742	8751	129	9.4	12239	12268	203	28.3
2054	2073	160	19.6	4644	4645	121	1.1	8757	8764	134	7.2	12274	12277	124	3.6
2076	2079	128	3.6	4652	4677	166	25.3	8854	8883	224	29.5	12280	12281	121	0.7
2101	2133	180	32.6	4802	4805	125	3.5	8916	8923	141	6.8	12283	12303	169	19.8
2135	2136	120	0.6	4896	4949	170	52.6	8925	8951	145	25.4	12303	12336	163	33.0
2158	2160	124	1.8	5013	5018	124	5.3	9043	9074	182	31.4	12337	12340	126	2.5
2178	2180	123	2.2	5043	5068	147	24.7	9092	9128	195	36.2	12341	12343	121	1.9
2185	2210	180	25.5	5237	5331	310	93.3	9129	9152	153	23.0	12359	12537	393	177.9
2216	2248	189	31.2	5333	5336	127	3.9	9156	9271	353	115.2	12544	12585	193	41.4
2263	2269	130	5.4	5339	5344	134	5.2	9291	9293	122	1.3	12604	12663	227	59.4
2275	2288	140	13.1	5345	5464	198	119.7	9300	9324	167	23.9	12722	12725	123	2.8
2290	2327	168	36.6	5492	5493	120	0.7	9439	9442	123	2.8	12728	12808	199	80.0
2333	2333	120	0.3	5497	5499	126	2.2	9493	9499	134	6.8	12901	12904	123	3.2
2335	2345	139	9.6	5500	5503	126	2.7	9500	9511	150	11.1	12913	12963	566	50.1
2346	2348	122	1.9	5517	5624	293	106.7	9536	9542	126	5.7	12974	13010	184	35.9
2349	2414	223	64.8	5659	5703	164	44.1	9573	9574	120	0.5	13107	13150	163	42.6
2435	2463	178	27.3	5757	5772	149	14.4	9579	9592	136	12.5	13196	13197	121	1.0
2488	2526	229	37.7	5779	5783	127	3.4	9655	9666	132	10.9	13224	13281	292	56.8
2536	2539	126	2.5	5816	5897	251	80.8	9769	9792	153	23.0	14127	14155	169	27.8
2540	2565	138	24.6	5913	5960	174	47.7	9795	9806	142	11.2	14163	14175	129	12.1
2630	2634	125	3.1	6060	6159	280	98.4	9941	9947	134	6.3	14179	14182	126	2.7

Table A.4: Defective Segments from Ora22W4PM13.2 (2 of 4)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
14182	14184	124	1.8	17038	17040	120	1.6	22360	22369	139	8.9	25744	25754	140	10.6
14212	14236	139	24.5	17050	17051	121	0.9	22407	22409	121	2.0	25861	25892	165	31.3
14259	14292	247	33.8	17059	17060	122	1.1	22410	22411	121	1.8	25894	25909	138	15.7
14293	14293	120	0.2	17062	17088	157	26.0	22421	22428	124	7.1	26240	26270	236	29.4
14323	14326	130	3.1	17088	17089	120	0.4	22430	22486	272	55.9	26398	26437	212	39.3
14333	14347	140	14.1	17096	17099	124	2.7	22509	22572	227	62.7	26461	26476	135	15.4
14351	14358	141	6.3	17116	17120	127	4.8	22604	22656	171	52.0	26496	26517	138	21.4
14371	14375	125	3.3	17150	17165	134	15.3	22725	22731	127	6.4	26776	26815	179	38.9
14388	14444	186	56.2	17203	17204	120	0.7	22763	22791	160	27.4	26853	26860	128	7.6
14445	14487	178	41.8	17215	17220	131	5.6	22821	22842	144	21.0	26862	26900	216	38.4
14522	14531	134	9.4	17221	17223	123	1.9	22856	22858	122	1.5	26904	26905	126	1.8
14539	14547	138	8.2	17227	17228	121	0.7	22869	22871	121	1.3	26913	27079	251	165.3
14548	14550	121	1.1	17283	17313	163	29.4	22873	22880	133	7.6	27082	27122	168	40.3
14550	14568	148	17.9	17315	17320	126	4.6	22891	22895	129	4.2	27126	27134	126	7.1
14569	14577	132	8.3	17322	17323	121	1.3	22899	22899	120	0.2	27136	27209	257	73.0
14583	14587	123	4.0	17359	17371	148	13.0	22901	22974	198	72.6	27307	27309	124	1.8
14617	14618	121	0.7	17374	17375	121	1.1	23008	23074	194	65.5	27372	27378	129	5.8
14620	14624	128	4.7	17475	17479	124	4.4	23077	23079	121	1.2	27380	27382	124	1.7
14668	14838	260	170.7	17481	17500	153	18.9	23160	23213	163	52.7	27657	27902	291	245.7
14927	14970	251	42.9	17523	17571	192	47.2	23468	23505	154	37.1	27904	27905	122	1.8
14972	15026	189	54.5	17627	17634	128	6.2	23537	23597	174	59.7	27925	27956	158	31.3
15111	15114	123	2.7	17639	17666	175	27.2	23656	23669	154	12.6	27966	27970	122	3.3
15116	15147	154	31.9	17673	17674	122	1.1	23704	23727	159	23.0	28013	28051	208	38.2
15232	15233	121	1.3	17703	17736	210	32.3	23733	23735	124	1.6	28057	28061	122	3.9
15265	15273	143	7.8	17917	17941	144	24.1	23741	23744	123	2.7	28087	28119	369	31.7
15278	15288	134	9.6	19217	19221	129	3.6	23750	23781	162	30.8	28244	28245	121	1.1
15336	15360	150	24.1	19222	19237	140	15.3	23856	23878	169	22.4	28252	28265	137	12.8
15360	15412	221	52.0	19238	19239	121	1.1	23943	23944	122	1.9	28330	28331	120	1.1
15419	15466	287	47.2	19806	19827	161	20.8	23947	23962	158	15.7	28332	28349	145	16.5
15488	15728	322	239.4	19851	19880	148	28.2	23965	23972	134	7.5	28377	28380	129	2.8
15738	15739	121	1.0	19891	19892	120	0.7	24061	24061	121	0.6	28397	28443	188	45.6
15743	15769	198	26.5	19893	19909	135	16.2	24062	24070	133	7.8	28705	28708	123	3.0
15839	15843	127	3.4	19968	19974	130	5.9	24078	24080	124	2.5	28709	28725	158	15.9
15856	15914	197	58.5	19974	19978	137	3.5	24081	24083	122	1.5	28725	28729	126	3.4
15922	15926	123	3.8	20015	20040	156	25.3	24108	24142	157	33.9	29008	29014	129	5.8
15927	15928	120	1.4	20048	20049	121	1.1	24153	24155	126	2.5	29018	29050	165	32.6
15929	15939	139	9.8	20050	20052	126	2.5	24166	24189	160	23.7	29052	29061	127	8.6
15940	15945	127	5.3	20130	20138	122	7.5	24224	24238	135	13.9	29280	29281	121	0.9
15954	15960	130	5.8	20139	20141	126	2.3	24328	24350	165	21.9	29284	29329	188	44.9
15961	15962	121	1.6	20144	20145	121	0.7	24352	24366	143	13.7	29329	29332	128	2.8
16088	16093	125	4.4	20151	20176	146	24.7	24394	24420	179	26.2	29523	29616	279	93.0
16094	16104	146	9.5	20186	20195	136	8.7	24586	24596	133	9.8	29618	29625	127	6.8
16109	16131	163	22.1	20204	20208	124	3.3	24845	24848	125	2.8	29626	29632	126	6.3
16161	16193	188	31.6	20620	20623	126	2.8	24879	24896	126	17.2	29641	29680	223	39.2
16242	16248	128	5.7	20749	20774	181	24.7	24937	24948	145	11.0	29681	29688	137	6.6
16252	16254	122	2.0	20799	20854	165	55.7	24949	24958	134	9.4	29694	29697	124	2.7
16258	16597	398	339.4	20958	20959	121	1.6	24977	24980	124	2.2	29705	29708	127	2.5
16668	16670	123	1.8	20995	21008	134	13.6	24983	24993	128	10.7	29716	29718	124	2.1
16686	16706	152	19.7	21041	21066	171	25.5	24994	24997	124	3.5	29725	29741	132	16.7
16707	16713	141	5.8	21070	21078	128	7.9	25025	25050	165	25.3	29748	29952	279	203.8
16772	16773	122	1.3	21471	21505	270	34.0	25156	25162	132	6.2	29987	29991	126	4.0
16817	16822	134	4.8	21601	21738	215	136.6	25164	25176	138	11.6	30006	30039	165	32.6
16847	16851	127	3.8	21741	21787	312	46.0	25200	25234	156	34.8	30264	30297	198	33.3
16851	16884	283	32.6	21826	21831	137	4.5	25368	25398	190	29.9	30307	30337	165	29.7
16885	16888	128	2.7	21962	21963	122	1.1	25405	25419	146	14.4	30476	30533	243	56.7
16890	16892	128	2.3	21964	21996	185	31.9	25421	25431	142	9.7	30534	30536	123	1.8
16899	16903	123	3.9	22012	22038	184	25.9	25510	25529	166	19.3	30551	30559	134	8.1
16906	16911	130	5.3	22057	22108	244	50.2	25611	25634	153	22.6	30561	30570	128	9.0
16968	16977	132	9.1	22116	22123	144	6.7	25666	25679	140	12.9	30572	30574	126	1.8
16984	16992	129	7.7	22128	22188	298	59.9	25679	25681	123	1.5	30584	30592	135	7.7
17001	17032	175	31.1	22354	22356	122	1.6	25719	25720	121	0.7	30603	30609	130	5.6

Table A.4: Defective Segments from Ora22W4PM13.2 (3 of 4)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
30711	30741	194	29.8	37704	37714	133	10.2	43039	43042	121	2.5	46556	46583	158	26.7
30746	30788	226	42.2	37758	37763	129	4.4	43048	43062	144	13.2	46622	46634	137	11.2
30808	30810	122	1.6	37768	37869	446	101.5	43155	43169	160	14.8	46730	46781	324	50.9
31009	31010	120	0.5	37948	37953	123	4.4	43171	43174	125	2.5	46793	46965	351	171.9
31010	31017	128	7.0	37963	37968	125	4.5	43217	43230	145	12.6	46984	47017	255	33.7
31081	31099	144	18.3	38214	38215	122	1.1	43232	43232	120	0.6	47021	47075	169	54.3
31212	31259	157	47.4	38217	38249	159	32.1	43275	43284	130	8.4	47109	47115	123	6.0
31405	31427	173	21.5	38283	38291	128	8.4	43330	43339	135	9.2	47128	47153	161	24.6
31429	31430	121	1.0	38331	38333	121	1.6	43526	43535	132	9.1	47205	47206	120	0.7
31433	31460	175	27.3	38575	38603	162	27.9	43545	43551	129	6.5	47213	47217	127	3.0
31514	31540	192	25.7	38628	38631	127	3.4	43558	43587	198	28.9	47289	47291	123	1.7
31591	31595	124	3.6	38632	38653	147	21.5	43594	43622	202	27.9	47296	47306	128	9.9
31608	31609	121	1.1	38727	38730	124	3.0	43625	43655	211	29.8	47310	47311	121	1.3
31628	31657	188	28.8	38752	38785	181	33.4	43693	43703	141	10.5	47361	47371	134	10.2
31745	31747	121	2.5	38789	38794	126	5.7	43730	43918	298	188.0	47379	47384	123	5.3
31751	31765	137	14.7	38838	38858	157	19.8	43924	43934	138	9.7	47407	47414	140	6.8
31828	31840	143	11.5	38859	38896	191	36.6	43947	43951	128	3.6	47415	47435	150	20.4
31848	31854	133	5.9	39026	39092	179	65.4	43952	44009	230	56.3	47438	47478	151	39.8
31863	31873	136	9.8	39116	39141	186	25.3	44011	44022	133	10.7	47479	47480	122	1.1
31876	31927	172	50.4	39143	39396	318	253.1	44254	44258	129	3.8	47506	47521	160	15.6
32007	32043	191	35.8	39455	39495	176	40.3	44260	44275	132	15.0	47527	47529	122	2.4
32078	32102	155	24.8	39541	39576	202	34.2	44276	44277	123	1.2	47545	47548	126	3.9
32107	32152	161	44.7	39586	39586	120	0.4	44309	44309	120	0.1	47593	47608	142	14.6
32154	32156	120	1.5	39592	39647	197	55.0	44368	44426	268	58.2	47609	47610	120	0.9
32280	32285	133	4.1	39656	39793	247	137.6	44444	44444	120	0.6	47632	47661	182	29.4
32317	32328	134	10.7	39806	39813	136	6.6	44448	44448	120	0.2	47751	47773	134	21.9
32331	32344	159	13.2	39814	39902	204	88.1	44450	44464	133	13.4	47821	47828	132	7.0
32345	32392	225	46.7	39949	39978	164	28.8	44492	44579	247	87.4	48013	48036	134	22.7
32392	32445	195	52.9	40005	40098	270	93.7	44603	44621	144	18.0	48151	48158	127	7.1
32451	32567	248	115.6	40130	40189	209	58.6	44680	44684	121	3.9	48161	48166	129	5.3
32572	32641	192	68.9	40191	40192	122	1.3	44686	44690	124	4.1	48169	48173	129	4.4
32723	32724	122	1.6	40198	40222	145	24.1	44698	44709	144	11.5	48262	48292	156	30.3
32728	32734	130	6.6	40231	40237	128	5.8	44765	44776	127	10.9	48360	48394	160	33.9
32739	32740	121	1.1	40240	40256	136	15.6	44851	44856	123	4.3	48400	48401	121	0.9
33007	33008	122	1.2	40262	40264	124	1.8	44859	44862	128	2.9	48405	48411	125	6.0
33077	33078	120	0.8	40267	40295	146	27.8	45062	45064	122	1.7	48437	48438	120	0.7
33082	33083	122	1.5	40321	40365	165	44.2	45064	45067	122	2.4	48445	48449	128	4.0
33436	33440	128	3.4	40395	40445	160	50.1	45072	45072	120	0.2	48450	48451	120	0.7
33454	33458	127	3.3	40456	40457	121	1.2	45172	45191	140	18.5	48600	48604	129	4.0
33652	33698	200	45.4	40489	40513	153	24.0	45231	45238	137	7.6	48657	48664	125	7.3
33714	33729	149	14.9	40517	40518	122	1.4	45267	45270	125	3.0	48761	48823	211	61.6
33748	33788	218	40.4	40519	40544	145	24.9	45271	45272	120	0.7	48894	48945	192	51.2
33802	33880	311	78.5	40552	40556	126	3.4	45286	45286	121	0.8	48946	48947	122	1.0
33929	33956	167	26.7	40595	40602	134	6.6	45289	45292	128	3.3	48948	48959	135	10.9
33958	33960	121	2.2	40611	40624	141	13.6	45294	45314	153	19.8	48965	48966	122	1.5
34168	34168	120	0.4	40626	40628	123	2.0	45317	45327	132	10.0	48968	48970	122	1.5
35213	35242	221	28.5	40629	40637	129	8.0	45438	45446	129	7.1	48983	49028	158	45.4
35308	35336	177	28.1	40638	40640	123	1.6	45522	45537	143	15.2	49031	49033	124	2.5
35908	35922	139	13.9	40642	40696	175	54.6	45539	45543	131	3.9	49034	49081	186	47.2
35954	35956	122	1.9	40698	40700	127	2.5	45614	45622	141	8.9	49106	49151	220	45.0
35958	35967	135	8.4	40701	40789	215	88.2	45629	45639	143	10.0	49153	49159	137	5.8
36546	36557	137	11.2	40817	40884	174	66.1	45640	45642	124	2.0	49212	49218	128	5.5
36694	36701	129	6.3	40885	40989	190	104.2	45749	45808	180	59.0	49266	49269	127	3.0
36710	36711	121	1.3	40992	40997	126	5.5	45808	45838	143	29.2	49271	49286	131	14.8
36752	36752	120	0.5	41004	41005	122	1.6	45843	45844	122	1.4	49301	49448	352	146.5
37106	37107	120	0.2	41324	41341	151	16.8	45847	45959	174	112.4	49466	49493	145	27.1
37294	37319	179	25.2	41941	41944	123	3.8	45992	46075	265	82.8	49540	49542	123	1.6
37525	37595	292	69.7	42790	42793	131	3.9	46096	46208	255	111.5	49544	49614	230	69.5
37598	37603	133	5.3	42859	42887	222	27.9	46211	46266	193	55.7	49656	49663	126	6.9
37605	37607	121	2.3	42887	42888	121	0.7	46459	46472	145	13.1	49671	49707	168	35.5
37668	37692	162	24.4	42997	42999	122	1.6	46476	46485	134	9.1	49713	49715	124	1.4

Table A.4: Defective Segments from Ora22W4PM13.2 (4 of 4)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
49731	49817	220	86.0	53090	53171	161	81.0	58144	58151	146	6.9				
49820	49825	127	5.7	53202	53203	121	1.4	58154	58158	126	3.4				
49830	49881	166	50.9	53206	53209	123	2.5	58175	58180	134	4.8				
49906	49946	195	40.6	53298	53369	234	70.2	58194	58196	123	1.6				
49964	49972	131	7.6	53370	53374	127	3.3	58379	58385	124	5.6				
50010	50012	123	1.9	53466	53626	387	159.9	58387	58392	128	5.3				
50088	50096	137	7.5	53674	53675	121	0.7	58400	58426	186	25.4				
50100	50109	133	9.1	53677	53678	123	1.7	58449	58450	121	1.0				
50117	50146	171	28.7	53679	53968	560	289.5	58451	58465	132	14.4				
50172	50202	151	29.9	53987	53988	121	0.7	60939	60949	129	9.8				
50243	50264	145	21.2	53990	54001	135	11.1	61031	61034	125	3.0				
50354	50356	123	1.6	54005	54007	125	2.1	61035	61043	129	8.0				
50356	50361	131	5.2	54072	54081	132	9.3								
50426	50432	136	6.4	54123	54148	151	25.0								
50461	50485	155	24.4	54203	54230	172	27.1								
50520	50522	123	2.0	54248	54453	445	204.5								
50715	50808	195	93.2	54454	54533	314	79.2								
50843	50869	152	26.8	54540	54567	148	27.3								
50883	50902	131	19.0	54569	54572	122	2.5								
51012	51040	171	27.6	54587	54589	123	2.3								
51049	51051	125	2.0	54647	54672	159	25.5								
51053	51075	164	22.4	54703	54711	136	8.0								
51079	51085	129	5.4	54726	54728	126	2.1								
51085	51105	150	20.4	54890	54893	125	3.2								
51108	51111	129	3.0	54902	54927	174	24.4								
51122	51147	146	25.5	54950	54971	158	20.4								
51160	51171	144	11.0	55110	55127	137	16.6								
51179	51184	128	5.1	55191	55215	173	23.3								
51255	51304	188	48.7	55383	55391	129	8.0								
51304	51508	345	203.2	55421	55454	187	32.9								
51533	51535	121	1.6	55545	55556	151	11.1								
51545	51603	214	57.1	55557	55559	125	2.6								
51610	51726	228	115.8	55562	55567	122	5.0								
51732	51736	126	3.7	55605	55639	203	33.9								
51799	51807	135	8.0	55642	55643	121	1.0								
51810	51852	190	41.9	55644	55651	142	7.0								
51853	51854	122	1.1	55655	55656	121	1.6								
51866	51868	127	2.4	55657	55670	143	12.8								
51869	51872	125	3.0	55677	55699	145	22.2								
51884	51911	150	26.6	55701	55704	125	3.3								
52099	52119	152	20.0	55767	55771	128	4.2								
52273	52276	122	3.4	55778	55817	152	38.8								
52284	52298	149	13.9	55844	55869	166	24.8								
52299	52302	122	3.4	55909	55951	189	41.3								
52357	52376	136	18.3	56005	56046	211	41.7								
52410	52429	145	19.6	56058	56059	120	0.7								
52432	52432	120	0.8	56062	56065	125	3.0								
52448	52454	128	5.3	56084	56087	125	2.6								
52556	52557	121	1.4	56089	56093	132	3.6								
52583	52585	125	2.4	56096	56136	197	40.5								
52617	52633	141	16.4	56178	56180	122	1.6								
52726	52727	121	0.7	56232	56239	134	7.2								
52744	52749	133	5.2	56258	56287	213	28.1								
52752	52754	123	2.1	56309	56455	248	146.2								
52766	52767	120	0.6	56460	56461	121	0.6								
52799	52808	131	8.8	56462	56526	194	63.4								
52837	52848	133	10.4	56584	56647	231	62.9								
52849	52858	135	8.4	56648	56737	215	89.0								
52859	52860	121	1.1	56790	56802	138	12.1								
52875	52876	121	0.7	57367	57389	152	21.5								
52935	52978	171	42.3	57658	57675	141	17.1								

Orange 91 Eastbound Lane 4 PM 0.0

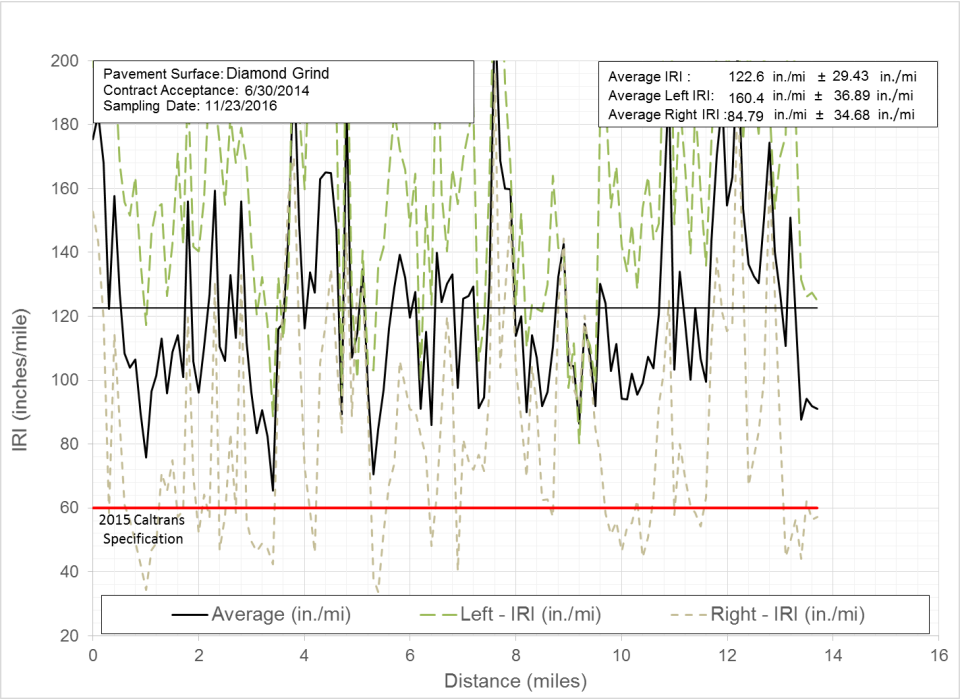

Figure A.5: Ora91E4PM0.0

Table A.5: Defective Segments from Ora91E4PM0.0

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
47	70	155	22.5	14280	14290	128	9.6	23536	23541	126	4.6	31562	31603	203	41.3
188	234	165	46.4	14332	14345	141	12.5	23589	23693	237	104.3	31720	31725	128	4.5
236	240	127	3.7	14346	14347	123	1.5	23703	23730	175	26.8	31734	31739	124	4.9
244	246	126	2.1	14525	14539	160	14.6	23732	23794	187	61.8	31816	31818	124	2.1
252	289	234	36.9	14975	15062	465	87.6	23799	23886	229	86.4	31824	31855	231	30.1
322	337	146	14.5	15064	15099	187	35.1	23900	24031	280	131.2	31857	31860	123	3.0
341	346	129	4.6	15103	15111	128	7.5	24063	24077	145	13.8	32311	32312	121	1.0
360	506	478	146.2	15129	15186	493	57.1	24080	24088	139	7.8	32313	32313	120	0.4
531	719	215	188.0	15731	15759	178	27.5	24089	24091	127	2.4	32492	32516	158	23.0
736	806	540	69.9	18815	18889	481	74.3	24101	24104	124	3.4	32524	32539	139	14.5
820	847	155	26.5	18894	18899	138	4.3	24167	24175	126	7.7	32544	32547	130	3.0
1327	1390	403	62.7	18899	18933	242	34.3	24300	24311	135	10.7	32562	32569	135	7.4
1399	1417	149	17.6	19034	19056	160	22.1	24442	24443	121	0.7	32574	32614	174	40.4
1421	1423	124	1.9	19061	19130	242	69.3	24445	24466	144	20.8	32683	32684	122	1.2
1427	1429	126	2.5	19221	19221	120	0.4	24475	24583	390	107.2	32920	32926	125	5.7
1431	1586	274	154.9	19230	19266	171	36.2	24778	24779	121	1.1	33016	33022	131	6.2
1606	1612	123	5.7	19295	19304	125	9.4	24855	24900	379	44.4	33029	33034	124	5.6
2359	2364	124	5.1	19306	19310	128	4.3	25638	25768	397	130.8	33123	33128	130	5.3
2396	2481	364	84.6	19339	19400	288	61.2	25787	25922	426	134.7	33333	33334	122	1.1
2491	2516	140	24.8	19421	19458	177	36.9	25925	25928	124	2.9	33572	33575	124	3.4
2526	2562	145	36.0	19572	19704	378	132.2	25933	25936	122	3.4	34522	34540	158	18.0
2564	2597	154	33.1	19724	19754	157	29.7	26195	26198	128	3.5	34542	34545	124	3.4
2611	2616	132	5.3	19775	19799	167	24.3	26218	26221	129	3.1	34664	34667	124	3.8
2617	2623	127	6.3	19842	19856	138	14.2	26230	26231	120	0.6	35039	35064	148	24.7
2630	2640	132	9.4	19893	19983	368	90.6	26231	26243	148	11.5	35110	35114	125	3.4
2649	2737	227	87.8	19986	20011	160	25.3	26247	26258	148	10.7	35238	35270	142	31.9
3362	3362	121	0.8	20047	20051	133	4.3	26391	26392	121	0.9	35284	35285	122	1.8
3693	3715	136	22.0	20052	20053	123	1.1	26393	26406	131	13.8	35286	35291	125	5.1
6891	6896	133	5.5	20054	20064	141	10.0	26503	26508	138	5.6	35299	35300	123	1.5
6899	6905	126	6.8	20066	20079	133	13.6	26548	26579	181	31.6	35304	35330	151	25.9
7144	7164	137	19.5	20104	20111	126	7.8	26695	26721	168	26.5	35492	35497	133	4.7
7696	7699	126	3.1	20113	20117	126	3.9	26751	26953	273	201.8	35506	35510	123	4.0
7700	7719	145	18.1	20120	20123	124	2.1	26967	26972	132	4.7	35514	35544	310	29.4
7826	7844	161	18.5	20148	20151	123	3.1	26981	26988	132	7.3	35600	35604	128	3.9
7997	7998	121	0.9	20224	20250	160	26.2	27112	27136	163	23.8	35605	35607	128	2.2
8012	8020	129	8.0	20254	20340	510	85.8	27173	27195	145	21.9	35609	35625	138	16.4
8048	8066	160	18.1	20348	20383	199	35.3	27202	27253	325	51.3	35627	35686	184	59.5
8135	8151	141	16.1	20409	20414	132	5.1	27272	27273	120	0.5	35719	35721	122	2.0
8300	8326	170	25.4	20415	20417	122	1.6	27274	27296	143	22.1	35758	35763	122	5.0
8492	8493	122	1.1	20421	20461	165	40.0	27314	27314	120	0.3	35765	35766	123	2.0
9005	9007	122	2.5	20470	20571	419	101.0	27322	27338	147	15.5	35767	35769	123	1.5
9655	9758	355	103.2	20596	20640	210	43.9	27372	27381	143	9.2	35778	35847	253	68.7
9783	9792	128	8.7	20670	20719	284	49.7	27383	27434	224	50.7	35848	35858	139	9.1
9793	9807	167	14.5	20723	20759	216	35.3	27785	27786	122	1.1	35859	35860	121	1.3
9832	9887	282	54.8	20767	20776	134	9.5	27893	27924	158	31.0	35863	35864	121	0.8
9888	9889	120	0.7	20849	20871	141	22.9	27930	27931	121	0.9	35865	35874	136	8.6
10464	10472	125	8.4	20884	20888	125	3.9	27946	27981	201	34.7	35876	35879	123	3.0
10474	10509	176	35.1	20898	20925	156	26.4	29297	29303	132	5.9	35882	35888	128	6.1
11370	11384	141	14.4	20969	20988	140	18.9	29672	29731	256	59.6	35929	35963	203	34.0
11940	11943	123	3.1	21233	21256	141	22.9	29776	29787	138	11.4	35969	35971	121	1.3
12331	12382	335	51.3	21290	21335	197	45.1	29790	29795	122	4.3	35974	36024	180	49.5
12389	12393	127	3.4	21355	21356	120	0.5	30272	30313	179	41.1	36058	36088	211	29.4
12398	12429	176	30.7	22955	23029	395	74.6	30314	30327	144	12.6	36094	36099	128	5.0
12436	12439	123	2.5	23035	23039	123	3.7	30332	30340	127	7.2	36102	36102	121	0.7
12440	12543	468	103.0	23154	23214	276	59.8	30359	30373	151	13.8	36104	36153	189	48.8
13648	13699	290	51.6	23326	23330	124	4.2	30377	30385	132	7.5	36155	36156	123	1.7
13742	13742	120	0.1	23334	23338	123	3.9	30933	30940	131	7.2	36184	36188	122	3.0
13748	13781	151	33.1	23417	23437	151	19.7	30963	31055	387	92.2	37312	37401	314	89.5
13782	13787	125	5.2	23439	23440	123	1.3	31100	31118	150	17.6	37636	37638	123	1.6
13862	13929	285	67.2	23488	23492	126	4.4	31123	31124	122	1.3	37642	37643	121	1.0
13945	13962	144	17.8	23494	23497	124	3.0	31132	31233	349	100.6	37644	37658	140	14.4
14272	14277	132	5.7	23534	23534	120	0.4	31276	31278	126	2.6	38270	38276	127	6.1

Table A.5: Defective Segments from Ora91E4PM0.0 (2 of 3)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
38282	38288	129	6.2	42567	42581	149	14.7	48760	48762	123	2.6	61810	61835	153	25.2
38318	38322	131	4.2	42583	42587	124	4.0	48767	48779	138	12.9	61843	61868	153	24.8
38326	38331	122	4.8	42705	42716	140	11.5	48781	48784	121	3.5	61905	61915	143	9.3
38333	38339	129	6.4	42716	42767	207	51.0	48801	48825	142	23.5	61967	61976	144	8.9
38452	38454	123	2.2	42838	42848	142	10.5	48939	48943	131	4.1	61979	61983	126	4.1
38457	38460	129	3.0	43048	43058	138	9.8	49003	49009	129	5.3	62012	62020	144	7.4
38463	38473	131	10.3	43101	43114	134	13.4	49015	49017	122	1.8	62023	62026	125	2.6
38930	38932	122	1.9	43153	43165	138	11.8	49034	49043	130	9.2	62028	62036	132	7.4
38960	38962	121	1.6	43167	43198	214	30.8	49053	49056	122	2.5	62092	62098	135	6.6
38964	38965	122	1.6	43378	43386	142	7.3	49101	49110	126	8.5	62157	62158	120	0.7
38971	38981	138	9.6	43386	43388	123	1.7	49111	49114	124	2.4	62191	62268	273	76.5
38986	38996	142	9.4	43397	43403	137	5.6	49151	49200	300	49.6	62308	62315	139	7.2
39004	39011	138	7.3	43411	43433	157	22.5	49207	49209	124	2.3	62318	62351	179	33.3
39016	39044	158	27.7	43865	43866	121	1.6	49212	49241	160	28.9	62402	62436	157	33.7
39046	39072	147	26.2	43874	43883	144	9.4	49259	49278	142	19.5	62447	62488	220	41.2
39073	39098	153	24.9	43884	43884	120	0.3	49279	49337	300	58.0	62539	62580	205	41.1
39110	39115	125	5.5	43894	43898	133	4.1	49341	49344	124	2.3	62586	62597	142	10.4
39124	39131	129	6.8	43981	43983	123	2.1	49377	49400	143	23.6	62602	62606	125	4.0
39514	39525	164	10.9	44215	44217	122	2.1	49475	49478	126	3.4	62637	62640	128	2.4
39667	39702	198	34.3	44219	44227	136	8.1	49648	49671	146	23.3	62654	62655	120	0.7
39731	39731	120	0.7	44252	44261	137	9.5	49996	50000	121	3.6	62655	62658	125	3.0
39752	39753	121	0.9	44265	44270	122	4.8	50003	50004	121	1.1	62665	62702	183	37.2
39756	39764	126	8.0	44270	44274	135	3.4	50011	50039	154	27.4	62728	62827	277	99.7
39765	39777	141	12.0	44287	44395	301	107.8	50042	50118	302	76.3	62828	62830	125	1.6
39778	39779	121	1.5	44423	44457	194	34.4	50120	50127	128	7.4	62840	62842	123	1.6
39783	39862	207	79.1	44458	44516	212	57.5	50280	50284	129	3.4	62843	62869	151	26.1
39961	39988	191	27.2	44713	44716	121	3.0	50294	50301	126	7.1	62932	62961	173	28.6
39992	40018	168	25.3	44721	44721	121	0.7	50523	50529	128	5.1	62965	62974	150	9.7
40130	40141	147	11.4	44760	44783	162	22.8	50637	50641	130	4.0	62976	63047	150	70.1
40205	40422	541	217.6	44998	45008	145	9.9	50727	50753	162	25.9	63056	63061	128	5.3
40446	40474	163	27.6	45073	45083	134	9.4	50754	50754	120	0.4	63062	63063	120	0.5
40475	40534	322	59.1	45254	45254	121	0.7	50768	50792	151	23.9	63072	63078	134	6.5
40599	40600	122	1.6	45256	45258	124	2.1	50820	50822	124	2.0	63079	63080	121	0.9
40604	40625	142	20.4	45719	45755	167	35.6	50823	50834	141	11.0	63084	63128	179	43.3
40685	40690	126	5.2	46714	46843	302	128.4	52392	52417	153	25.3	63148	63151	123	3.3
40744	40749	122	4.4	46876	46963	204	87.1	56318	56348	188	30.1	63152	63160	140	7.8
40774	40779	125	5.0	46991	47110	343	118.5	56698	56700	122	1.9	63165	63172	135	7.2
40920	40944	159	24.4	47120	47176	206	55.8	56767	56768	122	1.2	63177	63190	133	12.3
40983	41020	181	37.1	47201	47220	140	19.5	56771	56772	122	1.3	63197	63226	184	29.4
41029	41030	122	1.7	47241	47271	201	30.0	56785	56787	123	1.6	63228	63232	130	4.4
41133	41182	302	48.8	47359	47387	158	28.0	56813	56841	181	28.0	63264	63292	175	28.4
41234	41245	146	10.7	47405	47428	138	23.0	56850	56854	132	3.9	63294	63302	124	8.0
41251	41257	129	5.3	47493	47571	178	77.7	56859	56875	132	15.2	63430	63454	154	24.7
41288	41289	120	0.7	47580	47606	168	26.2	56901	56905	126	4.1	63545	63584	166	39.9
41294	41319	157	24.9	47698	47712	147	13.9	56909	56916	128	6.6	63595	63597	125	2.2
41431	41455	155	23.6	47818	47827	142	8.4	57017	57024	132	6.6	63603	63615	136	11.6
41538	41542	126	3.9	47841	47880	180	38.8	57130	57166	191	35.8	63615	63651	166	35.1
41545	41564	176	18.5	47882	47888	128	5.6	57168	57172	125	3.9	63653	63660	129	6.6
41565	41572	137	7.5	47891	47934	192	43.3	57356	57358	122	2.4	63666	63667	124	1.3
41597	41622	142	24.9	47951	47979	188	28.1	57389	57413	155	23.9	63668	63678	131	9.9
41635	41842	382	207.4	48028	48030	124	2.1	57454	57456	124	2.0	63681	63712	160	30.3
41993	42025	187	32.3	48033	48048	138	14.4	57457	57479	150	21.7	63716	63720	125	3.5
42028	42037	130	8.8	48243	48275	172	31.7	57480	57482	124	1.9	63729	63731	123	1.6
42091	42092	122	1.2	48277	48280	130	3.4	57534	57677	548	142.9	63731	63742	136	10.4
42094	42097	125	2.6	48362	48380	148	17.8	57687	57698	136	11.2	63743	63771	154	27.9
42144	42198	293	54.6	48467	48468	122	1.4	58873	58901	254	28.0	63797	63816	132	18.2
42282	42323	160	41.2	48470	48493	152	23.0	58925	58951	230	26.6	63874	63875	120	0.6
42327	42329	126	1.7	48504	48537	210	32.6	59435	59440	126	5.2	63876	63878	124	2.1
42331	42333	124	2.1	48670	48674	129	3.9	59442	59444	122	1.5	63880	63882	124	2.9
42337	42368	190	31.0	48676	48686	152	9.9	60273	60277	123	3.8	63885	63898	145	13.1
42372	42397	167	25.0	48686	48687	120	0.8	60280	60280	120	0.4	63968	63976	131	7.5

Table A.5: Defective Segments from Ora91E4PM0.0 (3 of 3)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
63977	64004	164	27.6												
64010	64035	161	25.1												
64064	64065	124	1.5												
64308	64385	466	76.6												
64386	64387	121	1.0												
64389	64393	129	3.9												
64406	64555	264	148.6												
64559	64605	178	46.2												
64612	64710	273	98.6												
64711	64858	252	146.8												
64869	65089	413	220.2												
65093	65097	124	3.6												
65111	65138	165	27.1												
65142	65190	213	48.3												
65194	65239	281	45.3												
65246	65270	150	23.5												
65539	65539	120	0.2												
65704	65706	122	1.3												
65709	65737	172	27.7												
66626	66628	125	2.5												
66718	66719	121	1.2												
66725	66726	120	0.2												
66729	66738	142	9.6												
66750	66758	131	8.0												
66805	66830	168	25.2												
67088	67091	121	3.0												
67094	67099	124	5.5												
67199	67209	149	10.3												
67216	67223	144	7.5												
67316	67326	132	9.9												
67332	67334	124	2.1												
67457	67507	361	49.5												
67516	67518	123	1.9												
67532	67534	121	1.7												
67568	67576	143	8.0												
67597	67626	252	29.2												
67628	67660	206	32.1												
67662	67663	121	1.1												
67669	67816	512	147.2												
67821	67884	201	63.1												
67898	67907	131	8.2												
67919	67923	124	4.1												
68033	68222	319	188.6												
68231	68294	252	62.8												
68295	68296	121	1.1												
68301	68344	249	43.5												
68345	68346	123	1.1												
69033	69113	282	80.5												
70426	70449	159	23.1												
70465	70470	126	4.6												
71872	71875	126	2.5												

Orange 91 Westbound Lane 3 PM 10.1

The graph shows the IRI over the project length, from the left and right wheel paths, and the average of the two. The single point average is shown as a horizontal line compared to the Caltrans construction specification of 60 inches/mile.

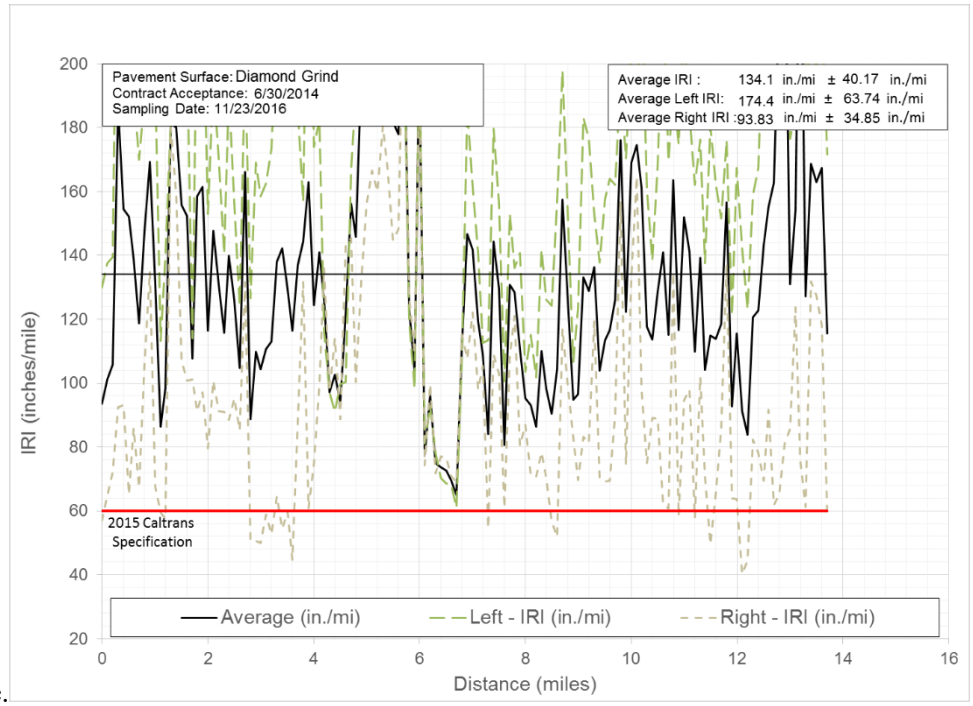

Figure A.6: Ora91W3PM10.1

Table A.6: Defective Segments from Ora91W3PM10.1

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
560	595	164	34.8	8161	8198	184	36.8	13645	13647	121	2.6	24423	24453	186	30.1
602	606	129	4.3	8300	8302	127	2.9	13960	14005	240	45.0	24457	24538	223	80.9
1373	1385	144	12.2	8310	8330	143	20.2	14087	14134	213	47.1	24553	24560	129	6.5
1675	1697	161	22.2	8388	8428	226	39.5	14145	14170	165	24.9	24560	24635	206	74.5
1714	1727	129	13.0	8432	8448	141	15.5	14450	14478	164	27.2	24664	24718	178	54.1
1822	1892	187	69.3	8454	8457	122	2.1	14538	14576	416	38.6	24724	24731	136	6.3
1894	1895	121	1.1	8511	8541	233	30.2	14581	14673	578	91.7	24736	24780	155	44.0
2222	2224	123	2.0	8545	8552	126	7.2	14796	14812	153	16.3	24781	24783	124	2.5
2266	2267	120	1.3	8553	8562	133	8.8	14820	14822	123	2.5	24811	24822	146	10.9
2466	2470	132	3.4	8574	8614	253	39.9	16819	16843	174	23.9	25039	25041	123	2.4
2478	2480	122	1.9	8617	8619	124	1.6	17886	17891	129	4.7	25044	25149	355	105.3
2529	2534	131	4.3	8620	8646	159	26.2	18537	18546	130	8.3	25184	25186	124	2.1
2576	2667	211	91.0	8883	8889	127	5.4	19860	19909	475	48.7	25224	25341	365	117.2
3439	3480	160	40.7	8896	8921	164	25.3	19914	19916	122	1.7	25456	25493	174	36.7
3493	3533	305	40.3	8994	9017	160	23.2	19917	19923	134	5.9	25600	25617	150	16.5
4188	4265	204	77.0	9113	9141	187	27.7	19957	19974	137	16.6	25721	25746	184	25.3
4268	4274	139	5.5	9193	9223	184	29.7	19977	19981	126	4.5	25755	25792	219	37.3
4302	4303	121	1.1	9228	9233	128	4.8	20026	20063	140	37.1	25797	25826	209	29.0
4315	4316	120	1.0	9237	9269	212	32.5	20088	20115	152	27.7	25828	25837	137	9.3
4443	4445	123	2.4	9453	9479	173	25.6	20126	20128	123	1.8	25873	25883	151	10.0
4537	4542	136	5.3	9497	9518	163	21.3	20155	20204	392	49.5	25892	25895	124	2.5
4551	4556	129	4.8	9981	10052	305	70.2	20241	20270	162	28.9	25905	25911	131	6.2
4583	4584	121	1.6	10082	10106	149	24.0	20271	20276	125	4.7	25951	25981	182	29.8
4592	4593	120	0.7	10195	10202	135	7.4	20280	20281	121	0.9	26008	26062	209	54.3
4622	4639	143	16.2	10205	10225	147	20.4	20348	20351	137	3.7	26071	26212	202	141.2
4664	4682	140	18.1	10242	10244	121	2.1	20354	20371	143	17.4	26219	26229	148	10.0
4726	4767	198	41.0	10251	10265	151	14.7	20382	20429	329	47.1	26231	26260	192	28.6
4792	4800	128	7.7	10270	10274	129	3.9	20483	20484	122	1.5	26314	26320	129	5.9
4808	4818	154	9.8	10334	10340	122	5.4	20495	20504	149	8.3	26321	26335	150	13.8
4862	4865	126	2.7	10345	10346	121	1.4	20504	20527	168	23.5	26336	26365	165	28.5
4877	4947	242	70.5	10349	10350	120	0.8	20584	20605	166	21.8	26366	26367	121	1.2
5004	5007	124	2.3	10911	10912	121	1.1	21220	21244	151	23.7	26402	26445	200	42.9
5066	5180	386	114.3	10914	10916	121	2.0	21532	21561	155	29.2	26468	26484	157	16.0
5547	5559	129	12.2	11105	11106	120	0.6	21673	21715	249	41.7	26505	26527	158	22.1
5576	5595	150	18.9	11107	11122	152	15.0	21763	21786	173	23.2	26551	26555	122	4.3
5598	5599	121	1.6	11127	11171	235	44.0	21943	21970	199	27.0	26555	26555	120	0.1
5645	5665	152	20.7	11270	11312	159	42.6	21972	22003	165	30.8	26564	26646	267	82.8
5672	5679	126	6.2	11912	11916	122	4.1	22155	22261	341	105.2	26673	26755	225	82.1
6387	6398	134	10.2	11917	11918	120	0.6	22283	22330	250	46.8	26756	26769	134	12.1
6856	7093	287	237.0	11926	11937	159	10.2	22335	22342	139	7.2	26771	26773	125	2.0
7094	7201	402	107.0	11945	11947	121	1.5	22344	22352	127	8.5	26775	26947	320	172.8
7202	7208	138	5.6	12007	12015	138	7.3	22419	22453	216	34.3	26952	27007	173	55.4
7212	7219	139	6.8	12074	12076	126	2.7	22570	22586	146	15.8	27016	27115	244	99.2
7236	7237	123	1.1	12094	12104	134	9.1	22590	22619	179	29.0	27117	27251	201	133.8
7241	7308	210	66.9	12163	12164	121	1.3	22656	22715	177	59.6	27252	27261	132	8.4
7349	7428	191	78.4	12165	12170	132	5.5	23083	23133	219	50.4	27266	27325	208	58.7
7429	7431	124	1.8	12181	12182	121	0.6	23159	23173	136	13.9	27326	27489	263	162.3
7434	7555	333	121.6	12479	12480	121	1.3	23174	23201	193	27.4	27489	27490	121	0.8
7558	7567	136	9.1	12603	12603	120	0.2	23218	23237	147	19.7	27492	27521	175	29.7
7581	7686	298	104.2	12603	12607	124	3.6	23306	23329	159	23.2	27523	27525	124	1.9
7689	7691	127	2.3	12726	12765	178	39.0	23430	23464	193	33.2	27530	27545	143	15.1
7693	7795	298	102.5	12778	12780	127	2.2	23538	23563	164	25.6	27547	27547	120	0.8
7827	7834	129	7.1	12782	12797	139	15.0	23568	23645	221	76.7	27551	27638	245	86.7
7835	7843	132	7.7	13156	13169	153	13.4	23651	23652	121	1.3	27642	27655	141	12.3
7845	7848	127	3.3	13171	13180	146	9.3	23694	23720	173	26.2	27657	27715	204	58.2
8021	8022	121	1.1	13218	13243	170	24.9	23740	23774	160	34.5	27717	27871	233	154.3
8024	8025	121	1.1	13264	13321	236	56.3	23775	23777	121	1.2	27877	27878	120	0.6
8067	8078	139	11.2	13424	13425	125	1.7	23779	23789	141	10.8	27880	27911	203	31.4
8080	8092	155	12.0	13518	13543	164	25.0	23832	23861	182	28.6	27957	28026	256	69.6
8104	8105	121	1.3	13624	13631	150	7.1	24275	24349	245	74.1	28037	28038	122	1.4
8143	8150	137	6.6	13634	13638	128	4.8	24373	24375	124	1.8	28043	28206	315	162.3
8155	8156	121	0.6	13642	13643	121	0.8	24380	24383	124	3.4	28211	28222	135	10.8

Table A.6: Defective Segments from Ora91W3PM10.1 (2 of 3)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
28223	28233	129	9.4	33199	33254	422	54.5	39185	39211	195	26.5	49153	49243	347	90.4
28239	28296	186	57.5	33283	33308	169	25.0	39247	39271	158	23.2	49363	49384	156	21.2
28317	28507	299	189.9	33403	33435	141	32.6	39293	39299	132	6.1	49495	49507	138	11.5
28509	28566	228	57.3	33886	33890	129	4.0	39305	39317	158	12.1	49508	49521	170	13.9
28567	28573	137	5.4	34142	34148	138	6.0	39324	39331	134	7.2	49523	49533	144	10.1
28574	28653	279	78.6	34237	34239	121	1.7	39335	39350	154	15.0	49539	49591	179	51.9
28690	28715	153	25.7	34241	34243	121	1.2	39352	39361	142	9.8	49646	49650	126	4.0
28717	28761	207	44.0	34252	34279	156	26.8	39444	39449	128	4.3	49953	49968	142	15.3
28771	28771	120	0.2	34371	34371	121	0.8	39457	39466	146	8.7	49975	49976	120	0.9
28792	29014	282	221.4	34386	34391	125	5.5	39469	39532	189	63.0	49989	49989	120	0.3
29017	29058	184	41.7	34600	34601	120	0.6	39532	39534	123	1.6	49990	49998	134	7.9
29083	29086	122	2.4	34614	34620	126	5.6	39655	39705	232	50.2	50052	50057	124	4.5
29089	29102	147	13.1	34842	34845	127	2.8	39742	39743	121	1.1	50193	50237	168	44.6
29108	29110	121	1.6	35290	35312	160	22.7	39744	39749	131	5.1	50238	50243	124	5.0
29125	29207	295	81.9	35569	35624	157	55.1	39798	39822	172	24.3	50271	50289	145	18.3
29209	29268	203	58.3	35627	35641	138	14.1	39860	39885	171	24.7	51018	51020	123	2.3
29289	29316	195	26.6	36104	36109	131	5.1	40027	40032	131	5.0	51022	51023	120	0.7
29316	29327	143	10.7	36109	36110	121	1.0	40040	40052	143	11.4	51458	51489	184	30.5
29332	29360	157	28.4	36232	36255	151	23.7	40056	40080	167	23.5	51508	51534	153	25.4
29361	29375	141	13.2	36275	36332	470	57.0	41025	41145	424	119.8	51542	51548	131	6.0
29406	29434	192	27.2	36397	36494	458	96.5	41158	41159	121	1.1	51683	51698	132	15.3
29452	29463	147	10.4	36529	36535	126	6.1	41164	41176	151	11.6	51710	51739	219	29.0
29466	29506	187	40.2	36536	36538	122	1.7	41178	41182	130	3.6	51741	51985	501	243.7
29526	29551	166	24.8	36540	36542	124	2.1	41196	41265	471	69.1	52265	52267	124	1.9
29557	29583	162	26.8	36543	36550	132	7.1	41280	41306	172	25.3	52309	52315	136	5.7
29589	29595	134	6.7	36589	36620	202	30.7	41327	41371	216	44.3	52387	52402	163	14.6
29604	29626	150	22.8	36698	36702	127	4.0	41375	41376	120	1.3	52403	52412	133	8.5
29649	29676	189	27.1	36704	36714	132	10.3	41378	41380	127	2.3	52821	52823	124	2.1
29679	29688	145	9.2	36799	36806	132	6.4	41477	41491	144	13.5	53047	53051	132	4.8
29696	29703	127	7.1	36814	36818	123	3.4	41700	41728	190	28.1	53055	53056	121	1.4
29722	29758	233	35.7	36871	36894	155	22.5	42162	42186	152	24.1	53062	53069	130	7.0
29801	29806	127	5.3	36949	36971	164	22.1	42190	42193	127	2.8	53076	53079	126	2.9
29814	29824	149	10.4	36973	36974	124	1.2	42194	42195	122	0.9	53085	53111	177	25.9
29828	29928	250	100.1	36975	36986	161	11.2	42392	42418	170	25.7	53181	53290	546	108.4
29931	29975	258	44.4	36988	37000	157	12.9	42453	42499	248	46.5	53297	53322	167	24.9
29975	30046	201	70.4	37024	37059	176	34.8	42634	42635	121	1.3	53329	53332	127	2.6
30052	30079	190	28.0	37066	37067	121	1.4	42641	42649	129	7.8	53365	53385	144	20.3
30084	30094	137	9.7	37071	37075	125	4.0	42805	42831	195	25.9	53388	53389	122	0.9
30096	30125	188	28.5	37081	37101	156	20.6	43769	43778	139	9.3	53391	53393	121	1.8
30130	30275	379	145.0	37184	37237	234	52.7	43781	43785	131	4.3	53422	53487	187	64.6
30275	30363	323	87.5	37246	37270	159	23.8	43859	43865	126	5.7	53536	53640	413	103.8
30369	30601	535	232.6	37291	37319	207	27.6	43981	44002	157	21.8	53664	53669	126	4.8
30604	30620	161	16.0	37337	37342	124	4.6	45976	46008	172	31.5	53670	53764	383	93.3
30621	30660	191	38.4	37351	37358	142	7.7	46311	46316	122	4.3	53780	53781	121	0.9
30666	30782	604	116.1	37365	37374	140	8.2	46330	46333	130	2.9	53791	53887	196	96.5
30786	30802	159	16.2	37377	37405	228	27.8	46334	46335	122	1.1	53918	53958	216	40.4
31417	31423	139	6.3	37473	37509	224	35.6	46336	46337	120	0.3	53970	53986	149	16.4
31520	31524	127	3.8	37679	37718	209	38.5	46338	46410	462	72.6	53994	53997	132	3.2
31598	31729	458	131.2	37747	37748	121	0.6	46417	46552	643	135.1	54054	54065	154	11.6
31746	31799	283	53.8	37749	37771	156	22.1	46569	46577	125	7.7	54066	54075	131	8.1
31830	31871	243	40.8	37832	37869	180	36.6	47074	47097	149	23.0	54468	54494	210	26.0
31896	32011	345	114.2	37938	37977	197	39.0	47127	47130	123	2.6	54698	54714	147	15.7
32023	32114	557	91.5	38055	38126	240	71.4	47155	47174	143	18.8	54922	54923	122	1.0
32159	32163	128	3.8	38133	38169	215	35.9	47434	47458	183	24.7	54976	55015	195	38.6
32171	32176	125	5.0	38222	38248	194	26.0	47989	47991	121	1.6	55020	55027	129	7.1
32183	32184	121	1.0	38250	38260	132	9.5	48094	48096	123	1.6	55032	55058	175	25.7
32217	32237	139	19.9	38261	38262	122	1.1	48108	48109	120	0.7	55105	55106	122	1.1
32726	32739	136	13.5	38265	38291	180	26.3	48163	48171	133	7.5	55456	55457	120	0.5
32964	32969	133	4.8	38347	38380	232	33.2	48238	48242	131	4.3	55458	55466	133	8.4
32976	32985	136	8.1	39071	39074	121	3.4	48250	48256	128	5.7	55467	55474	131	7.1
33176	33190	155	14.2	39075	39075	120	0.3	49001	49119	240	118.1	55491	55496	127	4.5

Table A.6: Defective Segments from Ora91W3PM10.1 (3 of 3)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
55502	55586	200	83.7	71721	71727	135	6.1								
55609	55638	170	28.7	71787	71851	532	64.6								
56606	56631	181	25.2	71890	71893	126	2.9								
57191	57245	398	53.1	71897	71910	140	12.5								
57246	57303	165	57.5	71913	71915	122	2.3								
57323	57419	550	96.1	71917	71943	166	25.9								
58056	58082	196	26.0	72259	72295	184	35.9								
58309	58325	141	16.4												
58464	58625	335	161.2												
58635	58636	123	1.4												
58637	58754	332	116.7												
59238	59255	152	16.9												
59841	59877	249	35.4												
59898	59899	121	1.1												
59906	59914	137	7.8												
59940	60008	477	68.6												
60311	60336	167	25.5												
60344	60350	127	5.8												
62015	62070	212	55.4												
62145	62148	124	2.7												
62154	62155	121	0.7												
62481	62557	548	76.5												
62561	62562	121	1.5												
62584	62690	436	105.6												
62704	62706	121	2.0												
62706	62708	121	1.7												
63412	63416	122	3.6												
63420	63435	154	15.3												
65164	65213	243	49.0												
66789	66794	124	4.3												
66838	66845	142	7.5												
66850	66865	139	15.1												
66869	66870	120	0.8												
66913	66935	135	22.0												
66976	66978	123	2.0												
66979	66984	128	4.8												
67068	67074	125	6.1												
68658	68658	120	0.5												
68659	68663	127	4.7												
68666	68673	139	7.0												
68946	68947	121	1.6												
68949	68958	130	8.9												
68964	68970	138	6.6												
69059	69082	139	23.5												
69098	69099	121	1.1												
69308	69333	172	24.4												
69414	69480	323	65.8												
69481	69487	125	6.0												
69501	69527	166	26.6												
69540	69653	199	113.0												
69659	69724	261	65.5												
70787	70852	411	65.4												
70854	70857	124	2.8												
70926	71029	366	102.7												
71032	71033	120	0.8												
71039	71061	149	22.4												
71064	71077	140	13.4												
71255	71258	125	3.3												
71470	71588	396	117.9												
71599	71616	137	16.8												
71657	71713	175	55.4												

San Bernardino 15 Northbound Lane 4 PM 3.8

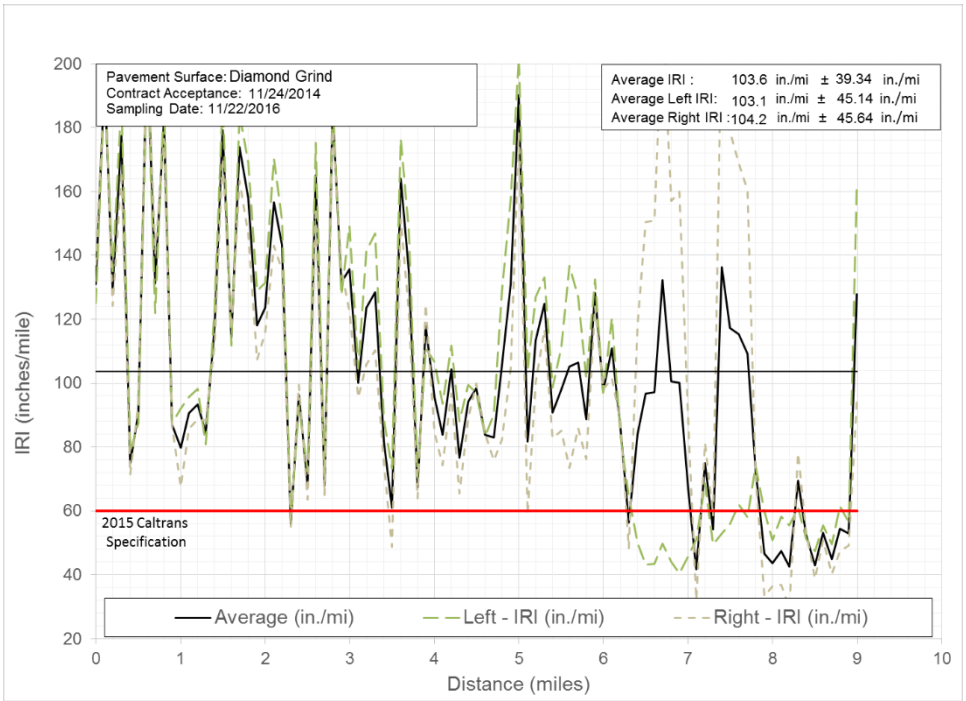

Figure A.7: SBd15N4PM3.8

Table A.7: Defective Segments from SBd15N4PM3.8

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
24	54	183	30.0	5474	5494	149	20.8	10287	10313	161	25.5	15318	15385	202	66.0
60	64	123	4.0	5612	5613	120	0.4	10315	10316	123	1.8	15395	15397	126	2.7
75	77	125	1.7	5613	5622	132	9.0	10338	10382	193	43.8	15399	15428	182	28.5
82	84	122	2.0	5624	5632	127	7.9	10412	10437	148	25.1	15433	15434	122	1.0
89	236	570	147.7	5951	5958	131	7.0	10695	10715	149	19.7	15452	15471	144	18.7
237	239	122	1.6	5962	5988	140	25.4	10715	10718	132	2.7	15474	15480	133	5.9
411	414	127	3.8	6150	6151	121	0.8	10725	10750	157	25.5	15486	15491	124	4.8
418	454	200	36.2	6155	6196	204	41.7	10757	10760	132	2.9	15492	15500	141	8.4
514	519	124	4.7	6309	6322	140	12.8	10761	10798	226	36.6	15516	15517	123	1.7
520	584	250	63.7	6327	6351	150	23.8	10825	10826	122	1.2	15518	15519	121	1.5
607	627	147	19.2	6401	6407	130	6.3	10828	10918	243	90.1	15551	15580	170	29.2
629	631	122	1.4	6605	6634	236	29.4	10919	10921	123	1.6	15584	15631	231	47.2
636	911	505	275.3	6731	6762	223	30.6	10923	10982	173	58.8	15633	15645	132	12.0
1028	1061	213	32.9	6821	6827	129	6.6	11005	11006	121	0.7	15652	15682	152	30.4
1149	1154	127	5.2	6831	6859	177	27.6	11010	11020	127	9.7	15683	15685	122	2.0
1155	1195	192	40.3	6932	6953	142	21.2	11023	11053	176	30.3	15685	15694	133	8.4
1282	1333	169	51.3	6959	6987	163	27.7	11258	11358	414	100.2	15697	15705	141	8.3
1404	1450	142	45.7	7141	7163	135	21.2	11389	11401	141	11.6	15706	15707	120	0.2
1479	1501	151	21.6	7229	7255	150	25.8	11403	11414	136	10.8	15738	15775	207	37.1
1514	1840	447	325.8	7291	7293	121	1.9	11428	11431	126	3.6	15817	15863	189	46.6
1855	1886	207	31.7	7295	7296	121	0.7	11438	11523	203	84.4	15874	15970	414	96.1
1899	1901	122	2.7	7301	7301	121	0.7	11547	11559	137	11.5	15976	15977	122	1.2
2022	2051	167	28.4	7303	7312	133	9.3	11564	11625	268	60.8	15985	15986	121	0.7
2318	2326	133	7.1	7434	7453	145	18.7	11652	11664	155	11.9	15988	16001	138	13.1
2477	2482	130	4.8	7458	7460	122	2.1	11665	11800	485	135.3	16002	16038	189	36.1
2495	2499	124	4.4	7747	7887	416	140.7	11827	11841	150	13.8	16066	16085	149	18.9
2508	2533	148	24.5	7889	7890	122	1.1	11841	11863	159	22.5	16191	16219	153	27.9
2757	2757	120	0.2	7896	7899	124	2.1	11898	11926	185	28.1	16465	16497	151	31.8
2774	2775	123	1.4	7916	8000	172	84.4	11963	11981	136	17.8	16506	16511	125	4.6
2785	2802	141	17.3	8016	8023	130	6.8	12210	12244	213	34.5	16528	16538	128	10.5
2949	2955	128	6.0	8025	8035	136	9.9	12820	12826	125	6.1	16539	16552	133	12.1
2979	2984	129	4.2	8048	8130	551	82.7	12882	12907	164	25.0	16555	16556	121	0.7
2985	2990	127	4.5	8132	8133	127	1.6	12960	12961	120	0.5	16559	16598	154	38.6
2991	3002	143	11.3	8135	8203	246	68.2	12965	12970	126	5.1	16623	16661	166	38.4
3076	3078	127	2.3	8284	8373	230	88.7	12971	12972	121	0.8	16867	16913	218	45.7
3080	3108	165	28.3	8383	8384	122	1.1	12974	12977	130	2.8	17040	17043	123	3.7
3149	3150	123	1.3	8386	8460	211	73.2	12978	12980	125	2.5	17272	17338	423	66.3
3155	3164	131	8.9	8473	8670	281	197.2	12982	13030	163	47.7	17342	17343	121	0.9
3167	3199	146	31.7	8941	9030	208	89.2	13033	13035	125	2.4	17344	17350	129	6.9
3206	3209	125	2.5	9032	9281	242	249.0	13045	13080	194	34.9	17395	17408	135	13.3
3289	3577	634	288.6	9281	9388	204	107.1	13118	13141	151	22.5	17431	17451	157	20.0
3608	3609	122	1.1	9389	9391	124	2.0	13165	13192	166	26.7	17473	17625	387	152.1
3630	3632	126	1.7	9394	9395	122	1.3	13203	13254	157	50.4	17989	18007	160	18.0
3634	3793	770	159.4	9396	9428	186	32.9	13684	13687	129	3.5	18043	18044	121	0.7
3835	3868	158	32.9	9442	9448	135	5.7	13808	13832	165	23.8	18045	18049	123	3.6
3892	3899	135	6.4	9457	9459	122	1.2	13839	13978	225	138.9	18109	18111	128	2.6
3901	3901	120	0.2	9461	9644	269	183.2	13991	14228	297	237.1	19153	19246	288	93.0
4176	4295	436	118.3	9696	9717	141	21.1	14229	14231	123	2.1	19255	19287	163	32.8
4297	4365	169	67.5	9726	9727	122	1.3	14236	14239	125	3.6	19290	19298	146	8.4
4375	4400	143	24.7	9741	9775	173	34.4	14794	14795	121	0.9	19300	19301	122	1.2
4412	4509	686	97.2	9787	9814	169	26.3	14835	14836	121	0.7	19303	19317	133	13.5
4511	4513	123	2.7	9815	9817	128	2.3	14841	14842	121	1.0	19318	19433	579	114.8
4633	4637	127	3.9	9818	9819	121	1.0	14870	14904	176	34.5	19661	19744	334	83.4
4639	4643	125	4.3	9828	9867	237	38.7	14907	14911	135	4.4	19756	19760	128	3.8
4645	4655	144	9.8	9930	9934	128	3.8	14919	14919	120	0.3	19848	19923	396	75.1
4662	4671	127	9.1	9937	10034	249	96.8	14920	14980	243	60.2	20447	20469	145	22.0
4959	4973	135	14.4	10035	10037	129	2.2	14999	15077	230	77.8	20629	20644	153	15.2
5100	5100	121	0.5	10038	10109	186	70.6	15082	15108	167	25.5	20693	20725	540	32.4
5101	5115	134	13.9	10111	10112	122	1.1	15120	15268	641	148.0	20752	20799	237	46.9
5116	5118	122	1.9	10114	10140	166	26.7	15272	15279	127	6.5	20874	20913	169	39.2
5120	5163	158	43.7	10217	10231	136	13.2	15295	15296	121	1.1	20916	20917	121	1.4
5164	5212	176	47.7	10258	10263	123	4.9	15310	15315	130	4.6	20919	20925	128	5.8

Table A.7: Defective Segments from SBd15N4PM3.8 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
20927	20976	169	48.5	28325	28332	133	6.3	34743	34768	154	24.9	44073	44074	120	0.3
21079	21099	135	20.6	28361	28376	145	15.0	34834	35009	284	174.7	44075	44088	134	12.5
21395	21454	295	59.6	28378	28381	122	3.0	35023	35024	121	0.7	44106	44142	171	36.3
21455	21455	120	0.3	28382	28418	188	35.9	35035	35190	394	154.6	46529	46533	124	4.4
21672	21696	149	23.6	28420	28425	130	5.0	35213	35231	172	18.4	47557	47567	161	10.2
21763	21789	165	25.7	28429	28446	144	17.1	35234	35238	126	3.9				
22235	22237	121	1.1	28448	28475	148	27.4	35239	35239	120	0.5				
22238	22254	150	15.7	28531	28532	122	1.3	35369	35537	398	167.8				
22310	22324	135	14.0	28540	28552	142	12.5	35541	35637	397	96.5				
22453	22462	129	8.6	28554	28556	125	2.0	35661	35952	402	290.9				
22547	22651	328	103.7	28558	28564	129	6.2	35956	35961	133	5.9				
23023	23060	210	36.7	28565	28580	132	14.9	35990	36019	147	28.7				
23292	23341	190	49.6	28582	28583	121	0.5	36056	36183	227	127.1				
23350	23360	131	9.3	28593	28600	134	6.8	36261	36490	300	229.4				
23557	23632	168	75.8	28794	28795	123	1.3	36497	36663	242	165.4				
23689	23714	172	24.8	28797	28874	203	77.0	36665	36778	252	113.8				
23949	23957	140	7.4	29012	29048	152	35.5	36821	36906	189	84.7				
24099	24157	225	58.2	29050	29083	212	33.1	36960	36983	151	22.8				
24158	24305	285	146.8	29239	29243	126	4.9	37057	37064	136	7.3				
24312	24316	123	3.5	29270	29376	269	106.0	37105	37131	173	25.4				
24323	24364	188	40.9	29380	29381	121	1.7	37132	37144	146	12.1				
24659	24751	301	92.5	29717	29751	262	34.9	37149	37218	212	69.2				
25193	25245	305	52.2	29785	29885	210	99.5	38223	38247	135	24.3				
25269	25314	193	44.9	29886	29887	120	0.5	38402	38504	319	101.3				
25574	25596	168	21.6	30292	30301	128	8.6	38999	39001	121	1.9				
25597	25598	121	1.0	30306	30387	290	81.8	39005	39018	140	13.2				
25646	25650	129	3.9	30564	30581	158	16.7	39043	39088	202	45.1				
25735	25811	242	76.4	30610	30614	124	3.1	39095	39097	125	1.8				
25820	25821	122	1.4	30614	30628	130	14.0	39098	39201	246	103.1				
25824	25824	120	0.6	30859	30953	167	93.3	39203	39204	121	0.7				
25834	25841	125	7.1	31132	31160	168	28.0	39204	39213	130	8.4				
25866	25884	161	17.5	31163	31188	144	25.3	39214	39249	162	35.2				
26219	26226	129	6.4	31273	31336	227	63.8	39280	39619	391	339.5				
26236	26279	199	43.1	31356	31439	188	82.9	39620	39670	198	50.3				
26282	26293	145	10.9	31440	31441	121	0.8	39671	39709	202	37.6				
26297	26302	124	5.6	31449	31514	167	64.5	39726	40201	278	475.1				
26304	26497	456	192.7	31590	31591	122	1.4	40209	40246	245	37.2				
26500	26695	539	194.6	31591	31593	122	1.7	40246	40247	120	0.4				
26697	26700	122	2.7	31605	31614	133	8.9	40248	40317	227	69.0				
26711	26732	151	20.9	31617	31659	181	42.2	40338	40362	151	24.1				
26896	26900	127	3.9	31713	31736	146	22.6	40371	40372	121	1.2				
26935	26989	184	54.5	31857	31878	153	21.3	40381	40386	132	5.6				
26999	27002	126	2.7	31936	31962	200	26.4	40388	40392	128	3.8				
27484	27494	133	9.8	32070	32113	257	43.0	40397	40450	361	52.8				
27596	27596	120	0.5	32118	32179	329	61.3	40470	40479	132	8.9				
27597	27616	147	19.6	32446	32513	211	67.3	40487	40517	223	30.0				
27621	27622	124	1.4	32546	32551	132	5.8	40555	40633	304	78.0				
27624	27625	123	1.4	32568	32622	245	54.2	40642	40710	292	67.5				
27636	27676	207	39.6	32634	32665	180	31.6	40729	40779	216	50.0				
27679	27680	122	1.3	32666	32767	276	100.6	40814	40817	126	3.7				
27682	27683	121	0.9	32963	33013	244	49.9	40819	40864	216	44.5				
27685	27735	203	50.7	33951	34221	212	269.8	40891	40916	159	24.6				
27739	27741	122	1.9	34222	34224	125	2.3	40921	40931	129	9.8				
27742	27751	135	9.1	34241	34244	125	2.5	40936	41095	283	159.3				
27756	27811	163	55.6	34279	34319	185	39.9	41098	41109	145	11.1				
27818	27844	137	26.0	34324	34502	272	178.2	41111	41149	162	38.3				
28096	28132	168	35.9	34511	34512	123	1.3	41152	41206	185	54.1				
28136	28143	134	7.1	34517	34686	185	169.0	41209	41209	120	0.3				
28174	28174	121	0.7	34692	34694	121	2.0	41210	41259	244	48.9				
28178	28179	121	1.0	34695	34698	128	3.3	41264	41268	124	4.2				
28185	28292	265	107.7	34702	34739	149	36.7	43970	44000	165	29.5				

San Bernardino 15 Southbound Lane 4 PM 12.8

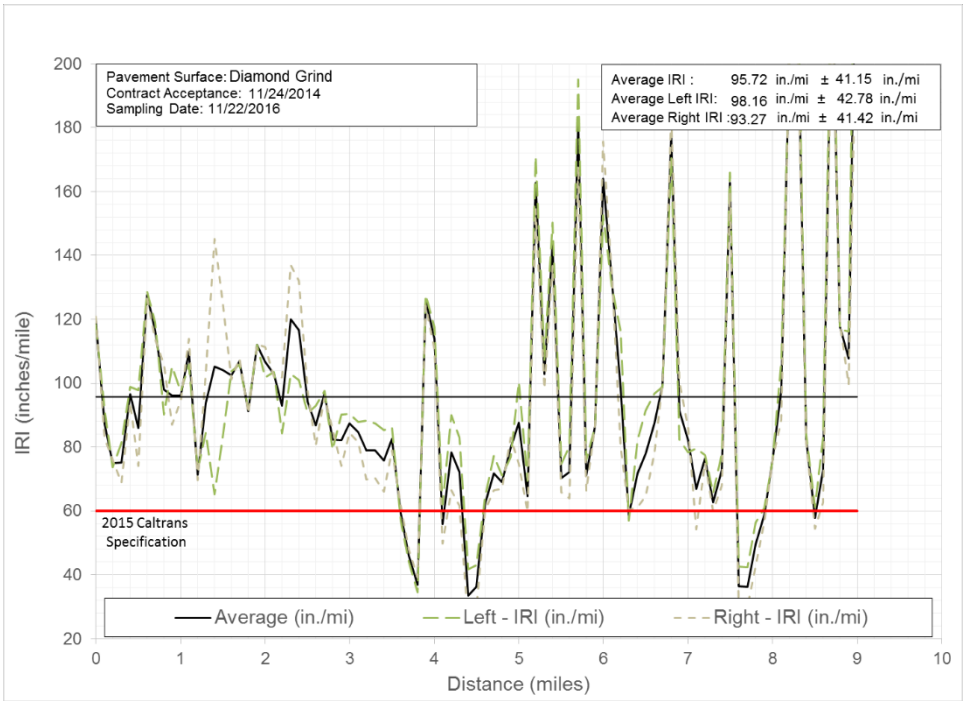

Figure A.8: SBd15S4PM12.8

Table A.8: Defective Segments from SBd15S4PM12.8

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	49	282	36.4	5347	5385	182	38.4	9011	9054	181	42.8	11618	11630	138	11.4
53	55	122	2.0	5413	5415	123	1.7	9091	9113	179	22.6	11633	11637	127	3.9
64	121	202	57.3	5420	5427	142	6.7	9117	9133	139	16.1	11675	11691	139	16.8
139	145	126	5.3	5428	5455	178	26.2	9142	9142	120	0.5	11867	11891	142	24.2
204	242	278	37.8	5488	5496	131	8.4	9154	9157	125	2.6	11897	11898	121	0.8
246	279	189	33.3	5710	5737	228	27.5	9157	9162	127	4.4	11970	12021	194	51.1
436	454	172	18.6	5751	5807	242	55.8	9164	9185	141	20.3	12022	12023	121	0.7
475	490	147	15.0	5809	5878	218	69.2	9186	9191	128	4.4	12031	12033	128	2.2
494	496	124	1.8	5929	5932	122	2.9	9193	9218	146	24.7	12036	12040	124	4.4
583	590	129	6.6	5933	5936	129	3.1	9337	9374	189	37.5	12064	12087	151	22.9
753	779	186	26.0	5940	5946	126	6.1	9407	9408	122	1.4	12088	12089	120	0.8
792	796	124	4.0	5975	5983	134	8.6	9426	9427	122	0.9	12092	12093	120	0.6
797	800	128	3.6	5998	6000	126	1.9	9442	9482	144	40.7	12142	12198	179	56.2
834	860	181	25.3	6007	6058	196	50.8	9483	9486	126	2.6	12209	12212	124	3.0
973	974	121	0.9	6064	6088	154	23.7	9507	9509	124	1.9	12226	12235	136	8.4
979	980	121	1.4	6145	6146	122	1.6	9516	9516	120	0.4	12248	12347	244	99.3
1031	1033	122	1.4	6152	6178	165	25.5	9581	9582	122	1.1	12348	12350	124	1.9
1100	1110	137	10.1	6278	6288	140	9.7	9588	9589	120	0.4	12351	12356	138	5.4
1169	1195	156	26.2	6295	6303	131	7.5	9634	9661	156	27.0	12363	12377	144	14.9
1433	1459	158	26.0	6354	6379	148	25.3	9667	9673	133	5.9	12378	12389	147	10.8
1682	1685	128	3.0	6629	6670	161	41.2	9682	9766	209	84.0	12416	12460	218	44.5
2150	2150	120	0.5	6713	6726	142	13.0	9768	9769	121	1.1	12463	12474	139	10.8
2153	2178	166	25.6	7066	7092	232	26.2	10001	10023	180	22.1	12499	12524	146	24.9
2180	2182	127	2.2	7097	7106	135	9.8	10098	10132	184	33.9	12562	12567	133	5.4
2187	2214	189	27.1	7106	7165	219	58.4	10134	10140	124	6.2	12576	12624	182	48.6
2237	2239	123	2.8	7168	7187	144	18.9	10150	10153	124	3.2	12642	12666	164	23.4
2299	2317	138	17.9	7190	7195	138	4.6	10156	10159	129	3.1	12683	12683	121	0.8
2354	2367	138	13.0	7208	7210	125	2.5	10162	10165	123	2.7	12685	12727	207	42.2
2472	2491	143	19.7	7212	7213	121	0.7	10199	10201	121	2.1	12764	12825	205	60.4
2525	2548	160	24.0	7243	7267	146	24.9	10205	10222	157	16.7	12837	12897	198	60.4
2714	2717	124	2.1	7272	7280	135	7.6	10228	10229	122	1.6	12903	12906	133	3.2
2724	2724	121	0.8	7309	7386	201	77.3	10233	10259	183	25.4	12921	12954	189	32.3
2776	2786	131	9.7	7388	7390	126	2.1	10338	10343	140	5.4	12956	12962	123	5.7
2787	2790	122	3.2	7400	7504	207	103.3	10357	10359	122	1.9	12965	13013	184	47.3
2791	2792	122	1.6	7523	7561	257	37.4	10387	10413	193	25.8	13015	13030	154	15.8
2795	2799	132	3.8	7565	7592	162	26.9	10426	10473	176	46.8	13034	13043	135	9.0
2828	2831	130	3.3	7648	7704	255	55.9	10506	10527	144	20.3	13047	13084	152	37.7
2832	2862	159	29.9	7715	7797	241	82.4	10559	10623	228	64.1	13113	13119	127	6.8
2872	2874	125	2.3	7815	7838	148	22.6	10739	10752	150	12.4	13121	13121	120	0.5
3152	3168	149	16.1	7844	7846	122	2.0	10782	10792	132	9.4	13148	13168	149	20.0
3184	3199	141	14.8	7878	7882	124	3.4	10803	10807	124	4.1	13189	13204	133	15.3
3321	3381	253	60.4	7908	8068	251	160.3	10811	10826	146	15.6	13206	13208	123	1.3
3386	3391	125	4.8	8127	8152	189	25.3	10865	10871	148	5.8	13282	13313	203	30.9
3394	3591	211	197.7	8185	8199	144	13.9	10885	10911	169	26.5	13461	13472	136	10.4
3636	3670	170	34.3	8307	8309	123	2.5	10951	10952	121	1.0	13503	13514	134	11.3
3679	3725	202	45.7	8355	8356	121	0.9	10957	10958	122	1.5	13516	13519	126	2.6
3853	3922	216	68.9	8356	8417	160	60.5	10960	10973	135	13.0	13536	13600	222	63.6
3983	4031	266	48.5	8450	8452	124	2.0	11003	11037	152	34.2	13928	13948	154	20.2
4114	4221	182	106.3	8452	8457	131	5.0	11046	11074	157	28.5	14055	14056	121	1.0
4288	4292	128	3.7	8460	8461	120	0.2	11106	11150	159	44.0	14210	14211	121	1.2
4295	4333	164	38.2	8462	8463	121	1.1	11162	11163	122	1.0	14213	14220	128	7.9
4358	4407	155	49.2	8465	8474	132	9.6	11180	11181	121	0.9	14271	14272	122	1.6
4423	4504	275	81.4	8483	8484	122	1.4	11330	11332	122	1.6	14273	14274	120	1.2
4717	4759	206	42.1	8485	8507	151	22.1	11338	11348	134	9.7	14276	14283	133	6.7
4970	5002	169	32.1	8660	8761	241	100.6	11382	11391	126	9.2	14518	14525	133	6.6
5008	5011	125	2.8	8763	8776	143	12.8	11465	11466	121	1.1	14526	14553	144	27.6
5022	5109	178	87.2	8779	8780	122	1.5	11469	11478	142	9.1	14599	14607	136	8.5
5130	5156	142	25.0	8838	8842	125	4.6	11515	11517	123	1.8	14609	14645	181	36.2
5158	5162	129	4.4	8845	8874	168	28.7	11549	11564	146	14.7	14653	14656	123	2.9
5208	5213	135	5.0	8875	8876	121	0.5	11579	11581	126	2.5	14689	14713	156	24.5
5247	5267	161	19.8	8971	8995	153	24.3	11583	11585	123	2.9	14721	14724	129	2.9
5342	5343	122	1.2	9003	9007	125	4.2	11614	11616	125	2.0	14726	14743	138	17.1

Table A.8: Defective Segments from SBd15S4PM12.8 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
14784	14784	120	0.2	24346	24385	192	39.0	30570	30578	130	7.5	41660	41696	186	35.5
14785	14816	200	30.6	24734	24755	187	20.8	30834	30836	121	1.2	42139	42147	131	8.4
14956	14977	161	21.2	24800	24901	196	100.7	30836	30852	153	16.3	42149	42150	121	0.9
15193	15212	143	19.2	24904	24905	120	0.6	31189	31286	203	96.3	42526	42560	159	34.0
15243	15245	121	1.1	24905	24909	126	4.0	31537	31547	131	9.6	42565	42566	121	1.3
15247	15253	126	6.3	24915	24921	134	6.6	31701	31739	164	38.3	42750	42752	126	2.5
15511	15513	122	1.3	24923	24929	135	5.4	31765	31926	665	161.8	42762	42765	126	3.2
15692	15699	137	6.5	24936	24941	127	5.3	31928	31933	127	5.3	42783	42815	181	31.9
15700	15705	123	4.8	24975	24978	130	2.6	31937	31995	196	58.1	42858	42875	136	17.1
15833	15842	135	9.0	24979	24980	122	1.3	32024	32027	129	3.1	43266	43387	577	120.2
15898	15923	161	24.9	24983	24986	122	3.5	32034	32036	124	1.8	43402	43407	127	4.7
16425	16426	120	0.7	25374	25377	121	2.4	32140	32176	173	35.9	43415	43441	144	25.5
16458	16472	138	13.5	25392	25430	163	38.5	32177	32210	184	32.8	43447	43555	472	108.5
16728	16754	148	25.8	25807	25867	205	60.5	32218	32246	157	27.7	43685	44163	425	477.4
16831	16843	142	12.1	25872	25873	121	0.7	32257	32261	128	4.3	44166	44182	141	15.7
16893	16893	120	0.6	25889	25890	121	1.0	32264	32377	674	112.7	44186	44187	120	1.1
16894	16914	151	19.4	25894	25895	121	0.6	32591	32617	182	25.9	44229	44263	178	33.5
17585	17586	120	0.7	25899	25922	136	22.3	32819	32820	120	0.5	44339	44344	133	4.8
17586	17605	150	18.3	25956	25969	137	12.9	32820	32846	154	25.4	44345	44367	148	22.0
17761	17762	121	0.8	25969	25970	120	0.7	32876	32881	136	5.3	44663	44668	125	4.7
17808	17837	162	29.0	26034	26136	264	101.7	32952	32960	147	8.2	44672	44676	128	3.8
17961	17966	129	5.7	26424	26468	174	44.9	32962	32963	121	1.0	44676	44679	122	2.2
17972	17975	122	2.2	26485	26489	124	3.7	32964	32977	142	13.3	45520	45523	128	3.2
17976	17977	123	1.7	26495	26495	121	0.6	33409	33423	149	14.3	45559	45562	124	2.3
17984	17985	121	1.2	26497	26505	130	8.3	33493	33505	138	12.3	45708	45728	143	20.3
17992	18008	143	15.8	26528	26535	128	6.9	34732	34745	126	12.7	45768	45771	129	3.6
18012	18012	121	0.7	26536	26544	124	8.2	34925	34933	136	7.7	45921	45922	121	1.1
18321	18332	134	10.4	26790	26800	136	10.6	34963	34967	128	4.2	45924	45927	122	3.4
18395	18402	134	6.5	27428	27489	148	61.5	34974	35002	149	27.8	45970	46252	513	281.9
18430	18438	131	7.6	27494	27522	166	29.0	35172	35200	168	28.5	46315	46337	147	21.9
18736	18754	154	18.3	27538	27552	128	14.0	35733	35758	192	24.6	46357	46358	122	1.1
18764	18765	120	0.7	27580	27701	386	121.1	35773	35815	219	41.4	46358	46365	128	6.7
18841	18898	169	56.7	27719	27721	121	1.3	35830	35990	466	159.9	46366	46393	155	27.1
18948	18970	165	21.7	27730	27743	134	12.9	36003	36085	218	81.9	46445	46451	134	5.7
19048	19063	140	15.7	27748	27853	410	105.3	36087	36088	124	1.3	46522	46548	139	25.9
19068	19072	127	3.9	27870	27871	121	0.7	36095	36129	161	34.2	46548	46560	140	12.0
19096	19097	120	0.3	28320	28371	192	51.0	36143	36144	123	1.6	46861	46935	642	74.0
19098	19130	174	31.9	28394	28509	397	114.7	36148	36206	229	58.2	46937	47091	341	154.5
19137	19139	121	2.0	28542	28557	143	15.4	36213	36215	126	2.5	47096	47101	125	5.2
20837	20919	322	81.8	28587	28740	381	152.5	36253	36292	198	38.7	47113	47119	125	5.3
20922	20948	187	26.2	28740	28766	134	25.2	36293	36397	468	103.8	47512	47546	270	33.3
20957	20984	212	27.1	28768	28862	195	93.9	36527	36582	182	55.0				
21004	21031	165	27.0	28863	28904	163	41.0	36779	36806	186	26.7				
21035	21180	560	144.8	29147	29149	124	1.6	36811	36898	272	86.9				
21184	21194	133	10.6	29161	29222	162	61.0	36921	36935	136	14.3				
21238	21250	138	12.5	29224	29224	120	0.4	37253	37354	246	100.9				
21255	21256	121	0.9	29252	29280	165	27.7	37390	37392	124	2.5				
21309	21312	122	3.0	29673	29679	135	5.9	37393	37439	154	45.7				
21318	21369	191	51.4	29686	29692	128	5.7	37891	37955	155	63.1				
21463	21466	123	3.0	29988	29999	136	10.5	38191	38220	190	29.4				
21468	21478	135	10.1	30015	30041	147	26.1	38221	38222	123	1.3				
21514	21516	123	1.9	30043	30044	121	1.1	38224	38230	126	6.2				
21982	21985	122	2.7	30045	30053	133	7.7	38238	38242	129	3.8				
22168	22172	124	3.4	30205	30208	127	2.3	38437	38454	142	17.0				
22172	22182	138	10.1	30213	30239	158	25.9	39467	39475	131	8.0				
22237	22238	120	0.3	30240	30252	157	12.5	39557	39564	127	6.9				
22538	22541	125	2.7	30255	30256	121	1.1	39620	39621	121	1.0				
22587	22589	124	2.5	30258	30329	456	71.3	39623	39733	471	109.7				
22597	22599	124	2.2	30331	30358	145	26.3	39747	39771	158	23.3				
22684	22688	125	3.8	30387	30452	189	65.1	39823	39847	168	24.4				
23137	23147	132	9.2	30482	30567	515	84.4	39929	40003	503	73.7				

Ventura 23 Northbound Lane 3 PM R3.5

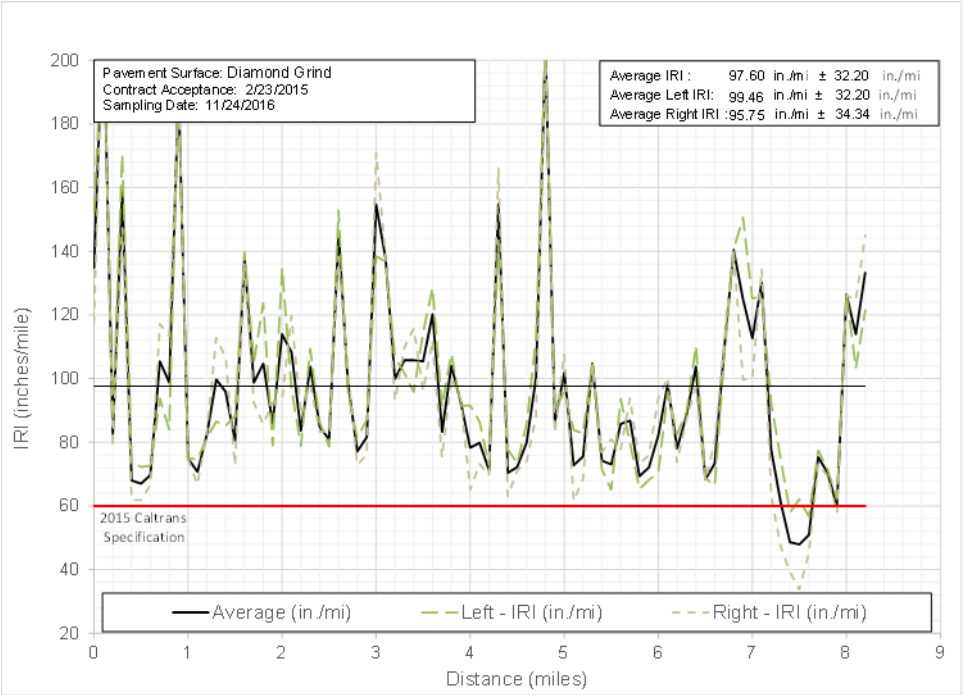

Figure A.9: Ven23N3PMR3.5

Table A.9: Defective Segments from Ven23N3PMR3.5

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	92	290	79.1	7360	7362	126	2.1	12503	12514	134	11.6	17580	17585	131	5.4
101	115	132	14.3	7367	7368	121	1.1	12556	12558	124	2.1	17586	17589	123	2.8
178	180	124	1.9	7370	7402	188	31.6	12566	12576	134	10.0	17591	17604	132	12.5
383	409	194	25.8	7403	7405	130	2.3	12615	12643	164	28.0	17719	17740	138	20.7
425	427	123	1.9	7410	7477	241	67.1	12827	12856	205	28.7	17745	17772	153	26.6
429	430	120	0.7	7486	7510	148	23.5	12892	12900	132	7.8	17787	17788	120	0.7
432	513	236	81.2	7548	7553	129	5.6	12910	12916	131	6.5	17796	17803	130	6.6
522	553	163	30.9	7556	7570	150	14.0	13492	13494	125	1.6	17829	17855	154	25.8
590	607	140	17.0	7652	7655	129	3.2	13694	13724	195	29.9	17905	17938	188	33.8
629	688	272	59.4	7659	7660	121	1.1	13725	13727	123	2.0	17943	17946	127	3.0
690	911	432	221.9	7662	7684	171	22.4	13868	13943	522	75.6	17954	17959	129	4.8
917	920	125	2.8	7776	7784	125	8.2	13947	13948	120	0.2	17963	17968	126	5.2
922	951	165	29.7	8083	8088	134	5.7	13953	14001	251	48.4	17970	17971	121	1.4
958	1086	619	127.7	8225	8227	121	1.2	14002	14003	122	1.0	18016	18016	120	0.7
1496	1504	126	7.3	8497	8506	128	8.4	14006	14010	131	3.6	18092	18099	131	7.2
1589	1673	409	84.0	8669	8673	129	4.6	14018	14019	121	1.6	18202	18227	206	25.3
1703	1730	188	26.9	8681	8710	190	28.3	14019	14020	120	0.2	18263	18272	137	9.8
1759	1861	367	101.6	8721	8723	121	1.4	14029	14113	243	83.3	18275	18288	138	12.9
1876	1881	121	4.8	8724	8728	128	3.7	14121	14130	135	9.4	18294	18296	124	2.5
1882	1884	123	1.8	8734	8736	123	2.1	14131	14134	123	3.0	18298	18327	168	28.1
1952	1993	170	41.2	8769	8904	370	135.5	14282	14298	144	16.2	18340	18382	179	41.3
2583	2623	205	40.7	8907	9006	253	98.3	14303	14305	122	1.6	18386	18394	138	8.0
3689	3694	131	5.2	9239	9284	159	45.5	14442	14442	120	0.4	18399	18448	219	48.3
3703	3706	125	2.9	9310	9322	128	12.2	14454	14461	130	6.6	18449	18461	143	11.2
3859	3878	158	18.2	9448	9478	144	30.6	14518	14522	126	3.4	18461	18508	171	46.8
3879	3883	123	3.1	9576	9593	138	17.0	14528	14542	151	13.9	18515	18518	124	3.2
3906	3996	265	90.1	9754	9764	131	10.6	14611	14613	121	1.3	18546	18552	134	6.4
3999	4010	128	11.2	9818	9818	120	0.2	14689	14745	236	56.7	18559	18562	122	3.4
4018	4071	220	52.2	9820	9821	121	1.5	14776	14802	158	26.0	18604	18618	157	14.6
4118	4125	145	6.8	9996	9998	122	2.3	15607	15611	125	4.4	18619	18629	138	10.0
4286	4346	222	59.8	10066	10067	121	0.7	15803	15826	150	22.6	18676	18677	121	0.7
4379	4385	130	6.5	10217	10227	148	9.4	15846	15848	125	2.7	18718	18731	137	12.6
4386	4398	132	11.7	10385	10409	153	23.7	15849	15856	134	6.7	18732	18739	135	6.6
4453	4479	166	26.7	10422	10473	169	51.5	15863	15872	139	8.8	18743	18771	180	28.1
4485	4496	148	10.7	10539	10542	123	2.5	15873	15875	123	1.8	19114	19116	124	1.8
4507	4536	152	28.6	10875	10882	132	6.3	15879	15890	159	10.9	19148	19180	146	31.7
4622	4649	150	27.0	10887	10892	135	5.5	15891	15972	206	81.3	19330	19371	212	40.8
4656	4657	121	1.1	10909	10958	172	48.6	15977	16014	205	37.6	19382	19476	202	93.7
4768	4775	136	7.1	10983	11012	155	29.3	16041	16070	176	29.2	19692	19694	122	1.8
4778	4780	122	2.1	11062	11073	137	10.4	16074	16075	121	1.0	19705	19730	137	24.7
4782	4792	129	10.0	11075	11107	193	32.3	16111	16114	122	2.3	19732	19734	123	1.9
4798	4803	129	5.2	11136	11146	137	9.7	16115	16127	131	12.1	20097	20177	463	80.3
4805	4810	127	5.4	11151	11179	166	27.9	16172	16223	262	51.7	20234	20244	132	9.3
4888	4939	169	51.4	11202	11209	135	7.3	16224	16370	443	146.1	20244	20258	140	13.8
4940	4950	130	9.6	11214	11217	124	2.9	16375	16379	130	4.6	20760	20764	132	3.7
4968	5225	503	257.1	11246	11274	175	27.4	16384	16384	121	0.5	20769	20813	301	44.0
5232	5245	147	13.0	11276	11284	151	8.1	16385	16459	582	74.6	20922	20923	121	0.9
5246	5275	188	29.2	11297	11298	121	1.3	16471	16496	170	24.9	20928	20939	139	11.2
5331	5332	121	1.0	11298	11300	122	1.8	16556	16558	122	1.8	21583	21585	123	1.8
5345	5350	123	4.8	11311	11335	145	23.8	16667	16670	121	2.5	21651	21658	133	6.7
6499	6518	152	19.3	11373	11382	130	9.4	16710	16713	126	3.3	21938	21946	134	8.2
6690	6705	132	14.6	11422	11471	224	49.3	16719	16745	169	25.4	22761	22769	128	7.5
6993	7012	160	19.4	11484	11512	159	28.3	17314	17316	121	2.2	22865	22991	477	126.0
7019	7025	126	5.6	11597	11627	194	29.7	17330	17337	129	6.3	23020	23108	494	87.9
7039	7044	134	4.9	11813	11824	136	10.8	17340	17354	133	14.1	24130	24135	130	5.3
7124	7130	128	6.0	11848	11850	122	2.2	17370	17413	166	42.7	24140	24145	124	5.1
7190	7215	168	24.9	11933	11957	178	24.5	17483	17487	129	4.0	24234	24238	125	3.2
7219	7221	122	2.9	12239	12252	140	13.6	17488	17489	121	0.8	24242	24248	132	5.7
7240	7243	129	3.1	12261	12263	122	1.1	17501	17503	122	2.1	24378	24381	124	2.7
7249	7292	333	42.8	12314	12336	152	22.3	17516	17522	127	6.2	24381	24397	149	15.7
7294	7295	121	0.6	12388	12413	149	25.9	17548	17554	132	5.4	25075	25076	123	1.5
7299	7301	123	2.4	12491	12495	131	4.9	17560	17570	134	10.8	25095	25099	130	4.1

Table A.9: Defective Segments from Ven23N3PMR3.5 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
25124	25150	166	26.6	32320	32368	172	47.8	42838	42876	160	38.1				
25158	25169	139	10.9	32374	32451	216	77.3	42909	42909	121	0.7				
25375	25792	600	417.1	32581	32614	204	33.1	42912	42918	124	6.1				
25951	25978	211	26.7	33097	33104	132	7.2	42920	42927	126	7.0				
26314	26326	131	11.6	33110	33120	152	9.8	42940	42942	123	2.1				
26368	26377	130	9.4	33123	33135	134	11.4	42948	42964	145	15.3				
26418	26422	127	4.0	33136	33137	121	0.9	43003	43015	139	12.0				
26444	26469	173	24.9	33142	33148	145	5.5	43016	43029	136	13.0				
26494	26511	139	16.7	33259	33289	182	29.8	43030	43038	138	8.4				
26511	26513	122	1.6	33289	33306	138	16.6	43058	43069	145	11.0				
26525	26556	197	31.4	33357	33359	121	1.3	43070	43083	150	12.9				
26574	26597	143	23.7	33467	33468	120	0.8	43085	43088	129	3.3				
26606	26609	126	3.3	33470	33474	126	3.6	43089	43135	185	45.9				
26617	26619	125	1.6	33702	33704	124	2.2	43158	43177	136	18.9				
26620	26621	121	0.8	33710	33712	122	1.5	43179	43190	145	11.3				
26748	26769	147	20.2	33712	33736	146	23.7	43191	43208	147	16.7				
26817	26853	189	36.1	33741	33746	124	4.7	43209	43214	125	4.5				
26859	26863	129	4.0	33899	33927	170	28.1	43219	43220	123	1.3				
28072	28074	122	1.6	34013	34079	197	66.2	43222	43255	146	32.6				
28074	28089	136	14.1	34100	34115	136	14.9	43258	43266	132	7.2				
28089	28090	121	1.0	34200	34205	129	5.3	43292	43292	120	0.7				
28105	28175	187	70.7	35045	35067	150	21.7	43300	43324	142	24.3				
28185	28193	133	8.1	35240	35261	147	21.4	43340	43352	135	12.0				
28201	28210	145	9.1	35392	35396	130	4.8	43353	43378	146	25.8				
28211	28212	121	0.7	35707	35737	178	30.0	43381	43446	175	64.7				
28427	28444	137	16.9	35770	35807	292	36.8	43448	43453	128	4.8				
28448	28454	126	6.1	35819	35953	280	134.3	43463	43470	126	7.5				
28461	28461	120	0.5	35959	36049	477	89.4	43482	43487	134	4.5				
28468	28473	126	5.3	36074	36103	201	29.2	43489	43525	280	36.8				
28488	28489	122	1.1	36142	36156	132	14.1	43528	43532	141	3.7				
28672	28687	147	15.2	36224	36224	120	0.4								
28688	28689	120	0.7	36243	36245	121	2.1								
28689	28700	147	11.1	36260	36261	122	1.1								
29037	29041	124	4.1	36300	36311	138	10.5								
29042	29043	120	0.7	36439	36454	155	15.2								
29048	29053	133	4.2	36457	36459	122	2.8								
29349	29355	126	5.7	36516	36542	179	25.6								
29584	29603	146	18.9	36607	36640	148	33.4								
29714	29740	154	26.0	36778	36813	252	35.3								
30410	30414	129	3.9	36823	36844	138	21.3								
30469	30495	190	25.8	36867	36868	122	1.1								
30504	30506	126	2.0	36870	36875	124	4.1								
30511	30547	190	36.1	36977	36978	120	0.5								
30568	30600	224	31.3	37026	37104	282	78.2								
30630	30655	171	25.5	37107	37134	176	26.7								
31491	31495	127	3.9	37142	37166	170	24.4								
31560	31573	140	12.8	37481	37659	343	178.0								
31582	31585	126	3.5	37673	37758	212	84.2								
31587	31588	122	1.0	38473	38493	141	20.3								
31590	31593	124	2.3	38493	38497	126	3.8								
31597	31609	157	12.2	40778	40812	159	34.0								
31661	31667	140	6.1	41115	41159	191	44.0								
31676	31688	151	12.0	41494	41512	155	18.0								
31696	31698	129	2.7	42331	42335	128	4.8								
31712	31721	136	8.9	42336	42337	122	1.3								
31748	31777	184	28.8	42458	42553	303	94.7								
31802	31816	133	13.8	42571	42621	169	50.1								
31881	31883	122	1.6	42665	42797	276	131.7								
31889	31904	143	14.6	42799	42809	140	9.8								
32057	32064	126	6.9	42820	42822	121	2.6								
32103	32108	126	4.7	42823	42824	120	0.2								

Ventura 23 Southbound Lane 3 PM 11.6

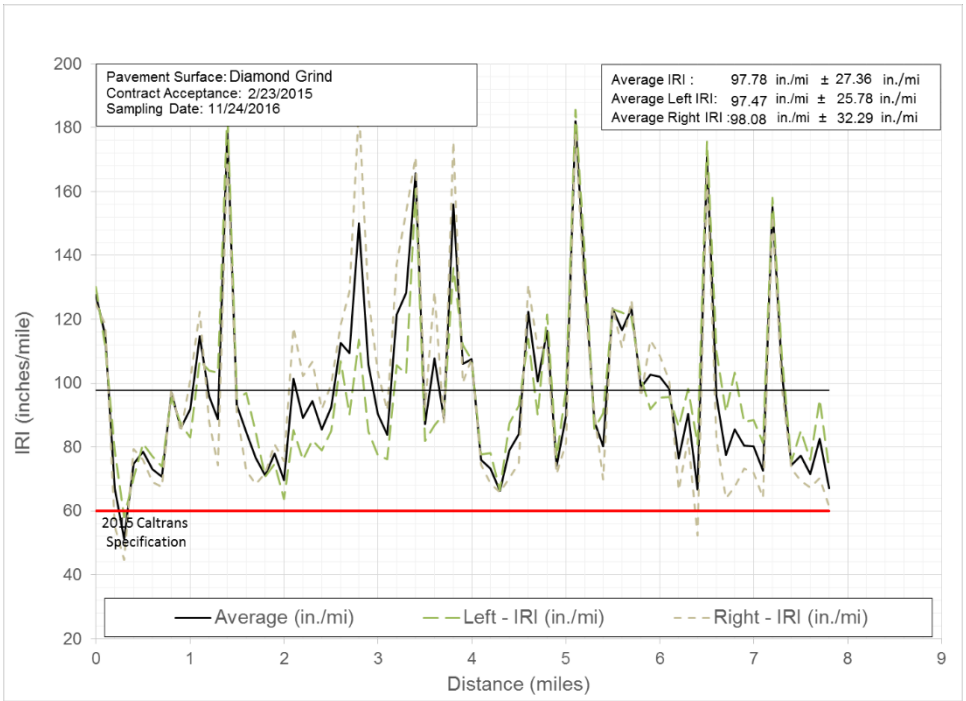

Figure A.10: Ven23S3PM11.6

Table A.10: Defective Segments from Ven23S3PM11.6

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
24	108	254	24	5618	5631	152	12.5	12621	12627	134	6.2	16932	16935	124	3.2
110	112	130	110	5636	5647	149	11.6	12653	12675	148	22.6	16945	16950	128	5.2
119	191	167	119	5676	5687	144	11.1	12712	12723	129	10.5	16985	17016	169	31.3
201	202	121	201	5758	5764	129	5.7	12765	12783	145	17.5	17021	17047	164	26.2
216	218	122	216	5830	5869	244	38.9	12908	12916	137	7.5	17053	17086	189	33.2
249	254	128	249	5920	5989	313	68.7	12916	12917	121	1.0	17087	17233	356	146.2
263	274	150	263	6129	6133	130	3.7	13140	13165	179	25.1	17322	17329	127	7.1
276	280	123	276	6214	6292	270	78.2	13600	13606	129	6.6	17337	17338	121	1.5
281	281	120	281	6441	6498	254	57.2	13659	13753	248	94.7	17354	17362	130	8.0
281	293	132	281	6546	6550	130	3.9	13758	13764	134	5.8	17365	17371	130	6.2
299	301	125	299	6562	6564	124	1.8	13771	13781	133	9.9	17418	17424	130	6.1
337	342	126	337	6761	6761	121	0.6	13839	13847	136	8.1	17429	17436	138	7.0
345	360	148	345	6766	6770	125	4.0	13889	13987	334	97.4	17437	17438	121	0.9
481	481	121	481	6859	6886	166	27.9	13990	13992	123	2.2	17450	17455	128	4.7
484	486	121	484	6957	6979	149	21.8	14038	14040	124	1.8	17456	17482	154	26.7
495	531	189	495	7209	7214	124	5.1	14102	14102	121	0.5	17493	17498	130	4.5
534	540	132	534	7562	7695	443	133.0	14105	14123	145	18.1	17528	17552	161	24.4
547	555	133	547	7702	7832	555	130.3	14197	14204	135	6.9	17553	17560	137	7.5
556	588	180	556	8014	8041	198	27.0	14206	14216	130	10.0	17566	17650	165	83.3
589	601	159	589	8075	8104	173	28.3	14272	14293	149	20.8	17651	17692	150	40.8
602	618	135	602	8119	8120	121	0.6	14356	14380	161	24.0	17716	17961	266	245.3
631	633	122	631	8145	8186	208	41.5	14394	14523	309	128.9	17970	18025	181	55.1
643	648	128	643	8666	8689	144	23.5	14526	14531	128	4.8	18032	18033	120	0.2
697	723	164	697	8766	8766	120	0.6	14538	14552	139	14.2	18041	18066	151	24.8
727	729	122	727	8806	8808	122	1.9	14555	14562	142	6.8	18074	18178	311	103.6
756	759	123	756	9300	9302	121	1.5	14569	14595	172	26.7	18183	18310	483	127.7
775	777	125	775	9448	9457	142	8.5	14635	14640	130	5.1	18335	18415	222	80.3
872	922	232	872	9511	9512	120	0.6	14641	14642	121	0.9	18671	18678	130	7.8
942	944	128	942	10182	10183	122	1.8	14667	14687	151	20.7	18679	18681	122	1.6
992	1007	136	992	10184	10193	128	9.7	14730	14796	179	65.9	18692	18695	128	2.5
1039	1057	142	1039	10437	10437	120	0.3	14882	14926	224	43.9	18777	18783	129	5.4
1068	1114	240	1068	10471	10473	131	2.9	14932	14933	125	1.8	18883	18911	198	27.6
1115	1119	124	1115	10475	10488	140	13.0	14934	15147	296	213.4	18952	18982	193	30.4
2016	2025	133	2016	10545	10567	150	22.6	15151	15177	182	25.1	18984	18995	142	11.4
2027	2027	120	2027	10745	10760	151	15.7	15180	15318	562	137.5	18996	19036	182	39.6
2211	2228	139	2211	11031	11055	146	23.6	15319	15348	166	29.2	19044	19102	242	58.2
2458	2498	445	2458	11070	11097	160	26.2	15349	15379	161	29.9	19110	19148	156	37.9
2687	2693	131	2687	11163	11168	129	5.3	15381	15440	165	58.8	19154	19160	128	5.8
2693	2694	121	2693	11173	11244	447	70.6	15440	15470	149	30.5	19312	19318	134	6.2
2732	2742	141	2732	11270	11277	124	6.6	15478	15597	212	118.8	19322	19338	155	15.7
2752	2756	129	2752	11278	11279	122	1.3	15638	15671	166	33.0	19339	19340	120	0.7
2772	2776	123	2772	11301	11312	143	11.0	15720	15721	121	0.7	19343	19357	141	14.4
2781	2814	161	2781	11315	11325	139	9.8	15765	15775	139	9.7	19358	19386	167	27.8
2816	2816	120	2816	11400	11416	143	15.7	15828	15837	130	9.0	19387	19464	242	77.0
3404	3429	164	3404	11535	11539	125	3.8	15886	15912	168	25.3	19466	19469	134	3.9
3578	3578	120	3578	11550	11558	151	7.5	15921	15924	128	3.0	19528	19538	138	9.3
3584	3584	120	3584	11562	11577	149	15.0	16002	16005	127	3.9	19562	19563	121	0.9
3675	3698	160	3675	11580	11581	120	0.7	16014	16039	140	25.7	19567	19571	124	3.9
3853	3902	197	3853	11582	11622	155	39.8	16044	16050	134	5.9	19573	19578	141	5.9
3904	3920	147	3904	11696	11721	148	24.9	16171	16172	121	1.1	19615	19615	121	0.7
4288	4306	153	4288	11760	11765	128	4.8	16174	16176	121	2.1	19871	19872	120	0.7
4390	4391	120	4390	11925	11935	137	9.8	16268	16272	125	3.5	19872	19903	195	30.5
4478	4497	150	4478	11955	11987	176	32.2	16278	16282	127	4.3	19905	19906	121	1.0
4515	4542	234	4515	12015	12046	163	30.7	16286	16286	120	0.5	20115	20115	120	0.2
4547	4569	133	4547	12059	12060	120	0.7	16329	16330	120	0.6	20287	20537	594	249.9
4576	4614	186	4576	12062	12062	122	0.9	16330	16365	167	34.9	20577	20582	128	5.0
4618	4646	178	4618	12347	12365	159	18.2	16404	16427	144	22.9	20652	20652	121	0.8
5173	5263	412	5173	12388	12424	173	35.6	16460	16463	124	3.7	20656	20664	138	8.2
5374	5424	155	5374	12471	12505	190	34.4	16535	16535	120	0.4	20665	20691	174	25.8
5444	5459	126	5444	12568	12571	124	2.7	16547	16553	130	5.7	20726	20730	133	3.4
5489	5524	256	5489	12579	12584	126	5.4	16693	16697	127	4.0	20733	20740	129	6.6
5607	5614	127	5607	12589	12591	123	1.7	16911	16919	131	8.9	20745	20751	133	6.0

Table A.10: Defective Segments from Ven23S3PM11.6 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
20813	20816	123	3.0	27625	27735	214	110.5	31712	31714	124	2.4				
20889	20894	129	4.8	27736	27742	132	6.4	31773	31792	145	18.8				
20903	20919	140	16.3	27800	27851	234	51.3	31945	31946	122	1.4				
20920	20927	143	7.6	27855	27855	120	0.7	31967	31990	154	22.4				
21037	21038	125	1.9	27865	27869	132	3.0	32015	32017	122	2.1				
21040	21042	122	1.4	27932	27959	160	27.4	32028	32131	253	103.1				
21049	21052	128	3.4	27988	27994	132	6.2	32181	32182	121	0.7				
21231	21260	184	29.5	28003	28007	126	4.3	32182	32188	134	6.3				
21358	21387	182	28.8	28009	28011	121	1.2	32193	32205	142	12.3				
21391	21392	122	1.4	28012	28037	172	24.9	32227	32228	121	1.0				
21393	21396	128	3.4	28075	28104	190	28.8	32232	32246	132	13.1				
21474	21474	120	0.1	28175	28210	229	35.7	32247	32248	120	0.4				
21474	21540	281	65.3	28490	28515	148	25.2	32298	32302	124	3.7				
21542	21566	165	24.4	28942	28953	132	10.7	32314	32318	124	3.8				
22119	22140	151	21.6	29074	29086	124	11.7	32394	32414	155	20.4				
22244	22246	122	1.8	29087	29093	131	6.0	32415	32420	125	4.6				
22318	22331	140	13.0	29184	29209	146	25.4	32456	32478	153	22.1				
22333	22339	130	5.9	29213	29216	125	3.5	32525	32531	132	5.7				
23317	23345	221	27.9	29268	29294	214	26.0	32533	32534	123	1.5				
23983	24010	189	26.5	29354	29357	123	2.6	32535	32565	173	29.6				
24226	24241	140	14.8	29358	29375	147	17.1	32568	32570	123	2.5				
24242	24254	139	11.6	29416	29417	123	1.7	32643	32645	123	1.7				
24327	24354	209	27.3	29421	29428	125	6.9	32648	32650	123	2.3				
24359	24369	140	9.4	29432	29519	428	87.4	32663	32663	120	0.4				
24399	24405	127	6.2	29533	29639	553	106.7	32834	32835	120	0.5				
24415	24417	122	1.9	29889	29912	138	22.7	32836	32840	125	4.3				
24472	24488	143	15.7	30041	30050	128	9.6	32845	32873	185	27.6				
24547	24601	274	54.2	30113	30133	136	19.8	33475	33485	134	9.9				
24604	24607	124	2.9	30220	30253	185	32.5	33580	33621	211	40.6				
24609	24614	124	4.3	30280	30328	473	48.9	34408	34432	182	23.9				
24633	24715	249	82.0	30336	30357	143	20.8	34506	34750	520	244.3				
24755	24802	181	47.7	30378	30379	120	1.0	34877	34909	167	32.1				
24828	24854	205	26.5	30421	30435	146	14.1	35338	35364	202	25.9				
24921	24938	154	17.1	30437	30441	131	4.0	36157	36178	136	21.7				
24940	24941	120	0.2	30485	30488	125	2.2	36709	36734	179	25.3				
25033	25059	195	26.5	30490	30491	120	0.5	36736	36736	120	0.2				
25097	25135	195	37.7	30493	30495	123	2.5	37058	37061	125	2.8				
25175	25204	218	29.6	30499	30507	131	7.5	37326	37338	133	11.2				
25207	25246	173	38.6	30603	30612	138	8.6	37474	37479	124	5.1				
25315	25321	131	5.5	30613	30613	120	0.6	37486	37487	121	1.4				
25325	25338	137	13.1	30843	30853	139	9.3	37531	37533	122	1.8				
25338	25340	122	2.0	30854	30861	141	7.2	38033	38034	121	1.2				
25342	25403	268	60.3	30865	30867	121	1.2	38252	38280	174	28.1				
25425	25451	175	26.1	30889	30898	137	9.3	38322	38623	435	301.5				
25456	25458	125	2.4	30899	30906	132	7.9	39184	39193	134	8.9				
25523	25543	171	20.5	30910	30912	123	2.1	39198	39203	131	5.0				
25547	25591	317	43.6	30981	31011	262	30.3	39247	39253	129	6.2				
25879	25888	142	9.5	31089	31113	168	24.3	39543	39553	133	9.7				
26800	26807	132	6.9	31135	31152	149	17.4	39588	39588	121	0.7				
26813	26817	123	3.7	31208	31224	151	15.6	39589	39591	122	1.6				
26836	26876	162	39.7	31259	31268	128	8.4	39604	39611	130	6.9				
26920	26944	146	24.7	31271	31279	133	8.3	39644	39654	134	10.6				
27036	27264	446	227.1	31333	31344	139	11.1	40361	40385	173	24.1				
27344	27345	122	1.4	31350	31358	131	8.5	41085	41112	179	26.3				
27346	27355	133	9.7	31368	31370	121	2.0								
27392	27424	165	32.1	31390	31420	183	30.0								
27425	27455	195	30.3	31430	31432	122	1.4								
27512	27540	178	27.2	31516	31531	144	14.5								
27577	27606	172	28.8	31533	31562	188	29.2								
27613	27619	125	5.7	31593	31620	207	26.5								
27621	27624	122	2.5	31639	31665	173	26.3								

Los Angeles 60 Eastbound Lane 4 PM 11.6

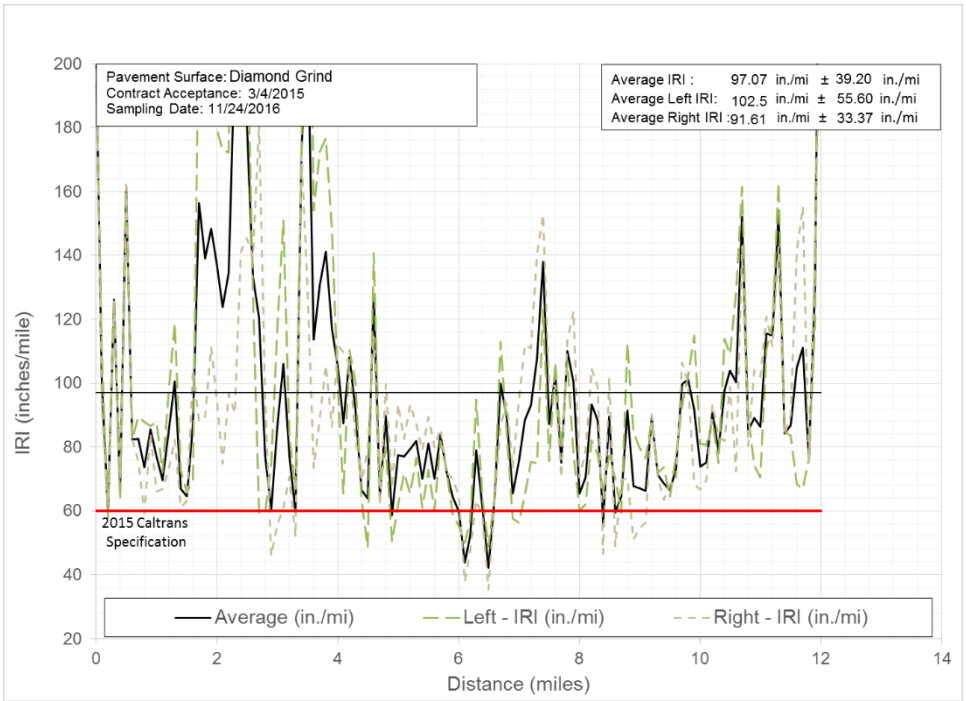

Figure A.11: LA60E4PM11.6

Table A.11: Defective Segments from LA60E4PM11.6

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	108	945	95.5	8986	8991	133	5.5	13358	13359	122	1.1	20169	20204	179	34.8
111	141	210	30.5	9000	9015	148	15.6	13367	13369	124	2.4	20282	20330	159	47.7
153	244	202	91.1	9022	9025	127	2.2	13375	13383	152	8.4	20347	20347	121	0.7
253	443	262	189.6	9059	9062	126	2.7	13387	13389	125	2.2	20499	20504	130	4.8
457	462	131	4.6	9331	9333	122	1.7	13390	13390	121	0.7	20507	20510	124	3.0
488	510	149	21.9	9342	9343	120	0.5	13395	13398	126	3.7	20553	20622	168	69.7
527	529	123	2.2	9426	9445	155	18.6	13439	13486	176	47.2	20624	20625	122	1.1
529	596	328	66.4	9578	9614	158	36.3	13542	13552	127	10.8	20703	20715	136	12.5
826	858	273	32.0	9810	9829	159	19.1	13553	13562	130	9.3	20717	20727	137	10.1
1608	1666	279	58.6	9915	9941	164	26.0	13568	13575	128	7.5	20796	20803	129	7.0
1721	1729	137	7.7	9954	9963	136	9.4	13578	13579	121	1.0	21151	21153	122	2.1
1757	1787	161	30.5	10018	10019	121	0.9	13580	13582	122	2.0	21154	21160	128	6.1
1888	1959	457	71.4	10020	10031	143	10.7	13590	13591	123	1.5	21163	21165	124	2.1
2553	2559	128	5.9	10068	10070	123	1.6	13600	13601	120	0.7	21200	21213	141	13.4
2626	2651	165	24.6	10082	10086	123	3.5	13609	13625	153	16.3	21289	21329	212	40.2
2657	2708	381	51.3	10121	10124	123	2.3	13626	13636	133	9.4	21512	21540	175	27.7
2712	2715	124	3.2	10148	10184	160	35.2	13649	13807	308	157.8	21605	21743	395	138.2
2718	2744	161	26.2	10228	10251	142	23.0	13833	13853	157	20.8	22051	22053	123	1.9
2745	2863	179	117.5	10251	10262	133	11.0	13921	13926	127	5.4	22125	22149	158	24.7
2875	2984	312	108.4	10268	10278	136	9.8	13951	14035	211	83.6	22180	22204	155	24.4
3004	3030	183	26.0	10321	10335	141	13.6	14112	14138	178	25.5	22541	22584	167	43.1
3062	3121	293	59.2	10341	10343	123	1.4	14164	14243	189	79.5	22586	22599	159	12.8
3121	3124	125	3.4	10382	10383	120	1.4	14244	14245	122	1.4	22604	22742	326	138.7
3132	3148	151	16.2	10384	10396	142	12.0	14249	14320	195	70.6	22745	22787	193	41.6
3151	3155	124	3.5	10419	10426	131	6.1	14326	14328	127	2.0	22789	22792	128	3.1
3470	3479	130	8.2	10428	10479	170	50.7	14338	14491	225	152.2	22795	22801	129	6.3
3503	3532	235	29.3	10585	10587	125	1.8	14492	14650	350	157.5	22806	22807	121	1.1
3558	3591	199	33.5	10588	10610	148	21.7	14656	14657	121	0.8	23082	23088	124	5.6
3700	3717	139	17.2	10635	10637	122	1.8	14659	14865	264	206.0	23090	23093	124	3.0
3880	3902	140	22.0	10644	10656	135	11.4	14873	14968	215	95.2	23670	23687	160	16.4
4103	4104	124	1.8	10665	10666	123	1.6	15707	15719	129	11.6	23696	23697	122	1.3
4817	4818	121	0.9	10733	10752	139	18.9	16017	16019	126	2.1	23924	23949	147	25.0
4822	4850	196	28.2	10804	10820	130	15.9	16022	16039	143	16.7	23978	23989	143	11.6
4946	4969	165	22.4	10833	10858	152	24.1	17434	17460	178	25.9	23992	23992	120	0.2
5294	5296	121	1.6	11102	11118	145	15.7	17932	18011	328	79.5	23996	24000	132	4.1
5297	5307	129	9.7	11606	11667	247	61.5	18015	18071	207	56.2	24505	24529	155	24.7
5553	5555	121	1.9	11765	11775	129	9.5	18073	18161	268	88.0	24534	24537	130	3.2
5566	5569	126	2.7	12185	12207	140	21.7	18192	18202	129	10.3	24547	24559	140	12.4
6099	6123	161	24.4	12304	12317	141	13.6	18204	18206	121	1.7	24612	24615	124	3.4
6457	6462	126	4.5	12319	12329	133	10.1	18219	18253	195	34.3	24617	24733	467	116.1
6682	6705	150	23.6	12339	12342	127	2.5	18255	18463	242	207.8	25287	25292	131	4.3
6933	6966	272	33.5	12641	12654	159	12.9	18490	18576	299	86.2	25299	25309	133	10.5
7129	7144	139	15.3	12661	12704	248	43.1	18577	18578	124	1.4	25373	25385	136	11.6
7377	7399	135	22.0	12722	12770	230	48.1	18584	18693	182	109.3	25387	25401	142	14.0
7400	7403	122	2.7	12775	12788	144	12.9	18739	18745	131	6.3	25403	25406	122	3.4
8348	8353	134	5.1	12802	12802	120	0.1	18767	18788	160	21.1	25433	25455	147	22.1
8527	8533	132	5.6	12813	12839	151	26.8	18813	18820	128	7.6	25561	25562	120	0.5
8534	8535	122	1.8	12841	12842	121	1.2	18822	18835	138	13.6	25564	25582	133	17.8
8537	8552	163	14.2	12852	12854	125	2.0	18864	18896	162	31.7	25641	25702	269	61.5
8558	8559	120	0.9	12856	12920	215	64.1	18901	18905	129	4.3	25765	25792	183	26.5
8572	8624	183	52.7	12921	12922	123	1.7	19629	19638	130	9.8	26460	26502	182	41.4
8628	8629	122	1.1	12936	12942	131	6.1	19642	19644	122	1.6	26526	26529	125	3.2
8637	8649	140	11.5	12957	12976	134	18.6	19709	19713	129	3.9	26532	26563	241	30.6
8650	8653	127	3.2	12977	12982	133	5.1	19831	19833	123	1.6	26899	26901	122	2.2
8677	8680	123	3.6	12998	13048	163	50.2	19834	19840	125	6.0	27070	27074	122	3.9
8686	8688	126	2.5	13056	13069	153	13.6	19841	19841	120	0.6	27113	27135	164	22.3
8691	8712	143	21.3	13072	13080	134	8.5	19955	19956	120	0.4	27463	27469	126	6.7
8713	8717	129	3.9	13088	13122	209	34.2	19968	19976	128	7.6	27473	27475	121	1.7
8730	8731	124	1.6	13140	13141	122	1.1	19977	19977	121	0.7	27480	27483	130	3.0
8732	8757	153	25.3	13147	13194	179	46.7	20110	20112	121	1.4	27493	27505	148	11.7
8799	8808	129	8.6	13213	13297	359	83.8	20124	20128	131	3.5	27649	27687	146	38.1
8976	8978	123	1.7	13322	13353	171	31.4	20138	20168	172	29.5	27754	27778	143	23.9

Table A.11: Defective Segments from LA60E4PM11.6 (2 of 3)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
27801	27825	148	24.4	37619	37648	162	28.4	40420	40424	131	4.0	49576	49578	125	2.2
27873	27875	121	2.3	37684	37708	143	24.1	40426	40481	200	54.7	50049	50070	140	20.8
27884	27893	150	8.8	37810	37816	125	5.5	40483	40485	126	2.4	51237	51259	158	22.1
27901	27912	141	10.7	37824	37826	123	1.7	40487	40509	144	22.0	51259	51262	125	2.9
28073	28098	171	24.5	37827	37829	123	1.7	40909	40930	155	20.5	51272	51276	136	4.3
28200	28204	121	3.9	37829	37831	124	1.9	40956	40957	121	1.2	51280	51286	130	5.7
28265	28283	135	17.8	37869	37881	145	11.2	41191	41243	230	52.4	51289	51297	130	8.6
28336	28364	216	28.0	37903	37904	122	1.7	41278	41293	137	14.2	51300	51303	125	2.5
28640	28654	153	14.6	37905	37971	297	65.9	41299	41300	122	1.7	51443	51472	166	29.5
28849	28859	139	10.1	37982	38006	151	23.8	41352	41428	317	75.7	51505	51507	126	2.3
28863	28870	127	7.0	38068	38084	142	16.0	41470	41500	168	30.5	51571	51596	175	25.3
28972	28993	153	21.0	38095	38148	202	52.7	41502	41504	125	2.5	51633	51667	182	33.7
29033	29045	149	11.6	38150	38152	125	1.7	41542	41548	138	6.0	51705	51705	120	0.2
29051	29052	120	0.8	38154	38174	142	20.7	41764	41799	197	34.6	51711	51712	121	1.1
29053	29054	120	0.7	38213	38252	161	39.0	41802	41819	151	16.7	51732	51742	137	9.9
29097	29112	131	15.3	38386	38411	166	25.6	41860	41918	191	58.3	51818	51822	127	3.1
29255	29280	156	25.2	38421	38425	128	4.6	41982	41987	130	4.8	51840	51842	123	1.7
29322	29346	164	24.4	38430	38434	126	4.0	41993	42003	135	9.9	51853	51896	300	43.1
29349	29351	122	1.4	38435	38437	121	1.2	42062	42094	226	32.1	51932	51941	131	8.8
29411	29431	153	20.3	38464	38528	177	64.1	42101	42102	120	1.1	52059	52116	321	56.6
29924	29925	121	0.7	38555	38578	147	23.4	42115	42145	176	29.6	52256	52283	203	26.2
29926	29963	185	37.7	38608	38726	278	118.6	42174	42198	152	24.4	52287	52291	124	4.0
30008	30016	150	8.2	38736	38744	145	8.0	42200	42202	124	2.3	52348	52374	175	25.3
30033	30037	125	4.1	38758	38759	122	1.1	42218	42263	325	45.4	52427	52430	123	2.6
30048	30051	125	3.0	38760	38762	130	2.0	42909	42913	131	4.2	52899	52910	126	10.8
30054	30055	121	0.8	38764	38790	178	26.3	42917	42961	217	44.3	53252	53261	149	9.8
30061	30111	242	50.0	38826	38827	121	0.8	42962	42971	141	9.0	53263	53265	122	2.4
30149	30171	164	22.6	38830	38843	157	12.8	42981	42988	137	6.8	53313	53322	142	9.4
30270	30286	142	15.8	38851	38856	126	4.3	42990	43013	159	22.6	53396	53403	125	7.0
30593	30631	155	38.7	38870	38876	132	6.3	43013	43014	120	0.6	53819	53826	137	6.9
30691	30715	159	24.1	38877	38879	128	2.8	43415	43447	207	32.7	53826	53829	120	3.4
31073	31074	121	0.8	38894	38912	136	18.4	43450	43456	132	6.1	53881	53909	245	28.0
31078	31086	138	8.5	38915	38915	120	0.7	43550	43561	129	11.2	54104	54106	123	1.8
31258	31269	131	11.1	38929	39007	205	78.1	43562	43567	128	5.5	54107	54110	122	2.5
31425	31464	190	39.5	39014	39014	120	0.3	43596	43625	158	29.0	54112	54125	135	13.0
31465	31467	122	1.5	39015	39026	131	10.9	43626	43633	141	7.4	54125	54126	121	1.4
31469	31474	124	4.6	39028	39037	139	9.1	43702	43704	121	1.4	54269	54298	185	28.6
31765	31783	128	17.4	39042	39044	125	2.1	43709	43710	122	1.7	54360	54378	147	18.2
32038	32060	137	22.3	39049	39049	120	0.2	43712	43720	132	8.5	54541	54567	194	25.8
33403	33406	128	3.8	39050	39052	123	2.5	43753	43802	232	49.5	54599	54610	146	11.8
33412	33415	122	2.5	39063	39064	121	0.8	43833	43978	258	145.6	54611	54618	123	6.4
33417	33423	125	6.6	39113	39149	174	36.3	44910	44978	384	68.6	54752	54775	157	22.8
35036	35063	217	26.2	39167	39169	124	2.3	45003	45061	244	57.5	54813	54834	142	21.5
35141	35154	145	13.4	39170	39177	134	7.2	45063	45065	122	1.6	55069	55075	126	6.3
35535	35553	150	17.3	39205	39235	180	30.1	46159	46195	205	35.3	55083	55094	144	10.6
35553	35557	129	4.1	39235	39333	499	97.7	46203	46213	135	10.0	55136	55143	135	6.4
35707	35710	123	3.0	39338	39431	318	93.1	46252	46263	126	11.5	55146	55149	126	3.6
35712	35715	122	2.3	39477	39479	122	1.9	46457	46462	130	5.4	55318	55344	187	25.7
35886	35910	144	24.2	39577	39601	141	24.5	46464	46465	123	1.5	55500	55532	296	32.3
36005	36006	122	1.2	39885	39909	156	24.8	47829	47833	124	3.9	55571	55572	123	1.2
36108	36147	251	39.0	39941	39944	122	2.2	48193	48214	147	21.8	55588	55592	127	3.7
36323	36350	160	26.2	40012	40015	122	3.6	48271	48279	130	8.0	55639	55642	123	2.8
36359	36360	120	0.7	40083	40118	190	35.4	48587	48589	121	2.1	55659	55687	218	27.5
36361	36368	130	6.2	40164	40184	145	19.4	48590	48591	121	1.5	55845	55854	133	9.2
36375	36401	176	26.0	40320	40337	144	17.1	48750	48764	140	14.7	56300	56302	122	1.5
36581	36583	121	1.8	40355	40377	152	21.8	48794	48799	132	5.3	56302	56307	123	5.0
36839	36856	157	17.2	40379	40379	121	0.7	48800	48801	121	0.7	56319	56320	122	1.3
37156	37178	147	22.2	40382	40387	126	4.9	48918	48922	124	3.9	56536	56562	188	25.6
37201	37244	307	43.4	40389	40396	132	7.4	49034	49038	124	4.0	56590	56664	474	73.9
37288	37291	127	2.8	40397	40407	135	9.3	49562	49567	122	4.6	56685	56712	180	26.7
37516	37536	139	19.8	40411	40414	129	3.4	49574	49575	120	0.6	56747	56748	121	0.9

Table A.11: Defective Segments from LA60E4PM11.6 (3 of 3)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
56757	56761	132	3.7	59812	59838	165	25.5								
56770	56816	326	46.2	59852	59866	135	13.5								
56842	56871	219	29.5	59891	59990	440	99.0								
56874	56875	120	0.9	60056	60079	151	23.5								
56888	56910	153	22.6	60216	60220	131	3.8								
56991	57007	126	15.9	60221	60240	135	19.5								
57071	57073	122	1.6	60467	60474	133	7.1								
57362	57384	148	22.4	60621	60643	155	21.7								
57514	57521	126	6.6	60645	60669	147	24.2								
57585	57613	159	27.9	60750	60761	141	10.8								
57620	57623	128	3.5	60972	60975	122	2.5								
57682	57713	171	31.1	60977	61009	162	31.8								
57725	57727	122	2.1	61045	61049	121	4.0								
57756	57798	250	42.0	61226	61231	130	4.9								
57964	57988	149	24.4	61272	61299	184	26.8								
58025	58032	124	7.1	61373	61398	169	25.3								
58101	58105	129	4.3	61417	61425	126	8.8								
58125	58148	164	23.5	61431	61440	135	9.4								
58299	58312	140	13.1	61446	61472	156	26.3								
58316	58324	132	8.4	61486	61511	164	24.7								
58325	58329	124	3.5	61583	61695	242	112.1								
58334	58340	133	6.1	61701	61929	827	228.4								
58409	58434	161	24.5	61929	61929	120	0.2								
58513	58520	132	7.1	61992	62020	171	28.6								
58529	58537	130	8.0	62074	62077	127	3.8								
58542	58549	127	7.6	62085	62087	124	1.7								
58551	58556	130	5.2	62105	62108	121	2.3								
58556	58558	122	2.0	62109	62110	121	0.7								
58563	58566	122	2.5	62112	62114	122	1.3								
58570	58572	123	2.1	62317	62326	132	9.4								
58583	58603	144	19.9	62351	62383	165	31.6								
58632	58637	137	5.7	62387	62391	130	3.4								
58639	58640	121	1.1	62423	62425	125	2.6								
58642	58643	120	0.7	62427	62428	122	1.6								
58652	58660	138	7.7	62846	62862	136	16.5								
58663	58706	212	43.4	62864	62867	124	2.7								
58803	58851	209	47.8	63118	63152	256	34.3								
58921	58939	151	18.1	63154	63226	266	71.8								
58944	59017	210	72.8	63231	63305	312	74.2								
59033	59059	188	25.3	63308	63397	471	89.0								
59101	59118	138	17.2	63398	63429	176	30.5								
59120	59122	124	2.5												
59124	59124	120	0.2												
59144	59145	122	1.3												
59146	59169	178	23.3												
59180	59181	121	0.6												
59183	59234	217	50.6												
59260	59268	135	7.8												
59281	59287	145	6.7												
59399	59415	154	16.5												
59425	59426	122	1.1												
59435	59464	162	28.3												
59500	59514	142	13.6												
59516	59523	135	7.1												
59540	59541	123	1.4												
59545	59571	165	25.8												
59598	59602	126	4.6												
59603	59607	124	3.7												
59657	59661	125	4.6												
59662	59665	124	3.2												
59730	59811	337	80.7												

Los Angeles 60 Westbound Lane 4 PM R23.6

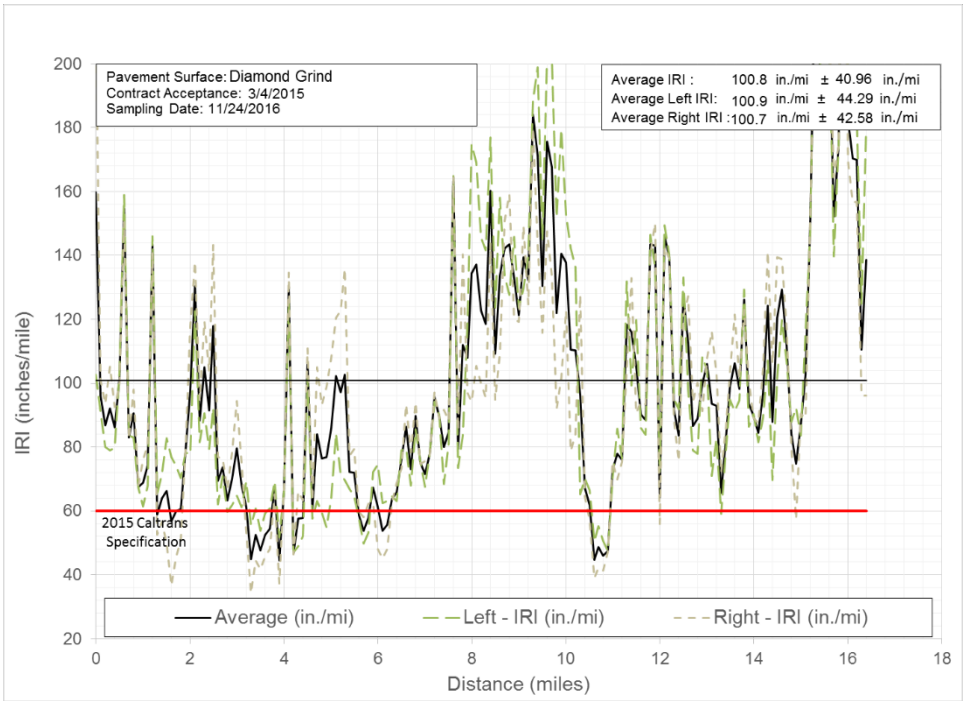

Figure A.12: LA60W4PMR23.6

Table A.12: Defective Segments from LA60W4PMR23.6

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	40	220	27.2	4438	4451	133	12.5	13295	13332	211	37.4	25030	25035	133	5.2
58	59	123	1.2	4517	4539	150	21.7	13363	13378	131	14.5	25086	25093	136	7.6
63	583	477	520.9	4548	4554	129	6.2	13383	13385	122	1.2	25113	25190	269	76.1
721	722	121	1.1	4558	4567	130	8.7	13388	13389	120	0.7	25269	25326	232	57.0
725	758	231	33.2	4636	4647	130	11.0	13402	13413	140	10.4	25364	25373	131	8.8
809	826	164	17.5	5149	5151	122	1.5	13418	13546	221	127.9	25377	25379	121	1.6
832	834	125	1.8	5358	5373	147	15.2	13563	13566	123	3.5	25397	25403	131	5.7
882	905	141	22.9	5376	5380	123	3.4	13567	13569	121	1.5	25403	25421	157	18.0
1044	1047	128	2.5	5637	5652	146	14.7	13598	13641	225	42.4	25427	25430	122	2.0
1110	1149	156	39.5	5714	5735	144	20.5	13652	13652	120	0.6	25435	25461	159	26.4
1261	1265	128	4.0	5889	5940	200	50.9	13663	13664	124	1.6	25484	25508	158	23.9
1266	1268	122	2.1	6112	6128	131	16.2	13671	13741	240	70.8	25536	25538	123	2.0
1274	1278	128	4.6	6304	6330	176	26.5	14173	14184	130	11.3	25565	25567	121	1.1
1280	1312	176	31.7	6395	6514	434	118.5	14190	14193	122	2.5	25862	25866	136	4.3
1321	1333	153	12.5	6590	6684	536	94.3	14253	14256	129	2.9	25874	25887	168	13.2
1337	1345	129	8.4	6685	6706	136	21.4	14258	14258	120	0.3	25891	25898	130	6.7
1452	1459	125	6.6	10485	10491	128	6.1	14261	14283	155	23.0	25953	25965	162	12.0
1461	1462	120	0.8	10498	10534	218	36.1	14531	14554	161	23.2	25966	25978	137	11.1
1470	1472	126	2.4	10572	10613	205	41.3	14865	14871	136	5.9	26153	26178	156	24.7
1486	1486	120	0.5	10706	10707	121	0.7	14884	14887	132	3.7	26204	26210	131	5.7
1487	1510	147	23.6	10709	10710	120	0.6	15635	15638	126	2.8	26235	26253	148	17.2
1583	1606	147	22.3	10712	10750	177	38.1	15639	15650	131	10.8	26271	26293	137	22.1
1703	1706	124	2.8	10790	10816	186	25.9	15650	15652	123	2.2	26363	26387	176	24.8
1707	1711	127	3.9	10857	10861	130	3.8	15654	15656	124	1.6	26523	26553	223	29.5
1712	1714	121	1.1	10862	10865	125	2.5	15669	15682	149	13.3	26578	26581	124	2.5
1747	1750	122	2.6	10897	10903	138	5.3	15886	15888	121	1.3	26757	26815	215	57.7
1843	1922	213	78.7	10918	10919	122	1.4	15892	15898	124	5.6	26824	26898	303	74.2
1933	1937	139	4.4	10932	10960	228	28.4	15985	16006	134	21.2	26936	26959	168	23.6
1949	2019	166	69.6	10973	10976	123	2.2	16031	16071	204	40.6	27015	27066	286	51.2
2153	2180	160	27.1	10980	11011	151	30.5	16105	16109	128	4.6	27072	27099	158	26.7
2191	2200	136	8.9	11049	11066	147	16.3	16142	16171	209	28.8	27103	27108	134	5.0
2240	2251	138	11.3	11067	11070	124	3.2	16481	16494	129	13.0	27113	27141	206	27.9
2252	2257	135	5.1	11089	11193	404	104.6	16643	16668	186	25.8	27240	27283	263	42.2
2279	2298	133	19.5	11282	11284	121	1.7	16670	16684	141	13.8	27337	27343	127	5.7
2562	2586	150	24.0	11288	11304	148	15.6	17017	17043	176	26.4	27352	27385	172	32.6
2592	2598	125	5.5	11309	11313	131	4.2	17047	17053	128	6.9	27405	27434	185	28.3
2648	2672	143	24.4	11331	11417	330	86.0	19715	19719	123	4.0	27435	27436	120	0.7
2702	2721	137	18.7	11850	11865	140	15.6	19732	19735	122	2.1	27440	27442	123	1.9
2734	2736	123	2.0	11974	11999	154	24.8	19741	19746	125	5.4	27445	27448	125	2.9
2837	2841	131	4.2	12028	12040	137	12.1	20548	20573	192	24.8	27453	27464	141	11.0
2912	2931	151	19.2	12062	12097	186	35.7	21139	21144	126	4.7	27517	27525	134	8.0
2974	3004	229	30.5	12123	12214	277	90.7	21649	21656	135	7.2	27528	27533	138	4.8
3026	3030	126	4.6	12252	12278	165	25.7	21753	21766	143	13.5	27550	27554	142	4.8
3034	3048	133	14.0	12296	12301	131	5.4	21774	21776	122	1.7	27559	27597	170	37.6
3302	3304	124	1.7	12308	12338	176	29.8	21777	21815	315	38.6	27598	27600	127	2.7
3308	3389	361	81.4	12396	12397	120	0.3	21845	21847	125	1.7	27655	27694	194	38.5
3411	3452	247	40.9	12460	12469	137	9.4	21850	21861	137	10.6	27707	27769	203	62.8
3472	3476	128	4.1	12482	12485	126	2.2	21863	21870	134	7.0	27770	27775	124	5.2
3479	3577	629	97.9	12606	12628	150	22.0	21919	22029	574	110.0	27796	27801	123	4.4
3810	3815	125	5.3	12649	12666	147	16.3	23605	23629	140	23.7	27801	27808	132	6.8
3818	3819	121	1.1	12707	12715	141	8.4	23640	23668	204	28.2	27817	27820	124	3.2
3827	3828	122	1.1	12721	12722	122	1.0	23772	23821	225	49.5	27841	27869	184	27.9
4056	4059	125	2.8	12733	12734	122	1.1	23829	23855	162	26.1	27878	27881	129	3.1
4059	4060	121	0.9	12741	12746	127	5.0	23858	23861	131	3.6	27885	27935	171	50.3
4065	4067	122	1.8	12849	12852	123	3.4	23865	23954	347	88.9	27967	27974	129	6.6
4071	4077	135	6.4	12854	12867	140	13.0	23955	23955	120	0.5	28051	28071	150	20.8
4124	4149	207	25.8	13130	13191	268	61.4	24249	24274	179	24.9	28075	28076	124	1.4
4234	4263	198	28.1	13196	13203	133	6.2	24603	24608	123	4.9	28089	28100	150	11.1
4267	4270	127	2.9	13206	13208	123	2.0	24609	24611	121	1.8	28135	28149	149	13.5
4273	4289	126	15.7	13219	13221	124	2.1	24618	24619	121	1.0	28168	28255	371	86.7
4316	4344	211	28.6	13229	13258	162	29.0	24882	24885	122	2.5	28273	28349	220	75.3
4409	4412	124	3.1	13266	13290	148	24.5	25019	25027	140	7.5	28359	28360	120	0.8

Table A.12: Defective Segments from LA60W4PMR23.6 (2 of 4)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
28372	28392	175	19.9	39388	39391	123	2.8	43359	43365	132	5.9	46648	46909	249	260.6
28400	28433	202	33.0	39437	39439	122	2.5	43366	43370	127	3.1	46917	46918	122	1.3
29000	29009	130	8.3	39441	39445	124	4.7	43377	43384	128	6.9	46921	46947	145	25.3
29010	29015	125	5.3	39485	39493	136	8.9	43433	43458	155	25.3	46963	47000	178	37.7
29020	29031	144	11.5	39551	39557	128	5.8	43618	43619	121	0.9	47011	47017	126	6.4
29040	29046	153	6.3	39558	39589	170	30.6	43624	43631	128	7.0	47020	47023	125	3.9
29347	29372	191	25.2	39621	39627	130	5.3	43632	43633	121	1.0	47066	47068	123	2.1
29440	29447	126	7.4	39629	39630	120	0.5	43688	43706	138	18.9	47126	47172	174	45.8
29448	29450	123	1.7	39638	39640	122	2.0	43707	43712	140	4.8	47174	47177	122	2.3
29531	29532	120	1.2	39710	39721	131	11.1	43724	43761	196	36.8	47204	47231	177	27.2
29533	29561	179	27.5	39722	39726	125	4.1	44162	44170	127	8.3	47261	47265	129	4.2
29592	29594	123	2.1	39956	39961	126	5.2	44229	44233	124	3.4	47290	47323	150	33.2
29595	29602	131	6.5	39996	39998	121	2.5	44234	44245	129	11.0	47323	47351	177	27.9
30021	30037	142	16.0	40000	40003	122	2.8	44250	44253	123	3.0	47365	47389	142	23.5
30912	30934	136	22.6	40011	40012	121	1.1	44255	44258	123	3.5	47433	47480	183	46.4
33525	33535	133	10.3	40053	40086	238	33.2	44261	44284	151	22.9	47484	47489	135	5.4
33539	33550	143	10.7	40088	40091	123	3.1	44286	44287	123	1.2	47497	47498	124	1.4
33953	33958	124	5.7	40240	40240	120	0.7	44332	44337	129	4.7	47501	47502	122	1.3
34245	34251	124	6.8	40252	40256	126	3.9	44341	44343	121	1.8	47503	47541	182	37.7
34640	34645	127	5.6	40394	40396	123	2.4	44349	44352	125	3.3	47549	47550	121	1.1
34647	34657	139	10.4	40398	40433	274	35.4	44363	44366	125	3.3	47555	47584	186	29.5
34698	34701	124	2.8	40434	40441	129	6.6	44368	44393	163	25.8	47586	47589	132	3.6
34702	34717	145	14.6	40447	40640	492	192.7	44399	44429	196	30.2	47591	47594	127	2.2
34718	34719	120	0.6	40664	40677	139	13.0	44439	44471	173	31.6	47671	47697	157	26.5
34976	34978	121	2.0	40731	40754	164	23.2	44571	44613	158	41.3	47704	47705	125	1.5
34981	34983	123	1.8	40812	40827	130	14.7	44614	44616	125	2.1	47706	47715	137	8.9
35073	35077	123	3.4	40864	40872	141	7.4	44646	44649	133	3.3	47718	47732	148	13.2
35090	35096	140	5.5	40904	40924	155	20.0	44659	44662	127	3.3	47736	47780	175	44.0
35151	35169	164	18.0	40926	40929	127	2.9	44663	44667	127	3.4	47784	47789	130	5.2
35232	35254	151	22.8	40947	40973	161	25.8	44676	44679	127	3.2	47825	47828	129	3.0
35288	35327	153	39.0	41211	41417	273	206.3	44680	44743	214	63.3	47925	47950	167	24.7
35618	35641	177	23.0	41437	41463	172	26.7	44765	44852	377	86.7	47964	47973	131	9.2
35732	35758	170	26.0	41535	41553	136	17.8	44971	45001	231	30.1	48003	48018	164	14.4
35950	35974	155	24.0	41584	41609	135	24.4	45023	45053	231	29.7	48020	48029	134	9.3
36014	36065	224	51.3	41615	41622	130	7.0	45055	45067	138	12.1	48068	48070	125	2.1
36157	36181	167	23.9	41622	41630	132	7.4	45077	45085	141	7.4	48072	48126	243	54.4
36209	36218	131	8.8	41632	41641	138	8.5	45124	45125	121	0.7	48186	48224	340	38.3
36374	36382	125	8.2	41654	41656	122	2.1	45542	45558	142	15.9	48238	48242	124	3.9
36519	36520	121	1.2	41659	41685	178	25.5	45560	45568	145	7.6	48261	48335	346	73.2
36522	36523	122	1.3	41732	41777	166	44.9	45571	45573	123	1.5	48379	48467	221	87.5
37424	37427	124	2.8	41812	41820	131	8.8	45574	45602	187	27.4	48497	48502	127	5.1
37461	37490	178	29.1	41870	41874	122	3.4	45737	45759	141	21.9	48506	48534	161	28.6
37649	37662	146	12.8	42078	42080	124	2.5	45802	45899	196	97.2	48553	48553	120	0.4
37665	37668	122	2.7	42125	42156	150	31.3	45900	45903	129	3.4	48562	48580	147	18.2
37669	37671	125	2.4	42207	42213	130	6.2	46007	46016	140	9.4	48582	48592	142	9.8
37742	37748	128	5.9	42337	42340	128	3.0	46018	46020	124	1.6	48601	48608	138	7.0
38132	38132	120	0.4	42341	42344	124	2.5	46061	46089	156	27.6	48614	48616	126	2.4
38183	38218	197	34.5	42633	42658	146	25.5	46110	46178	195	68.0	48617	48629	132	12.4
38252	38256	123	3.5	42659	42683	147	24.0	46179	46209	186	29.9	48630	48710	206	80.2
38431	38473	216	41.5	42855	42863	129	8.1	46209	46236	172	26.9	48743	48750	126	7.4
38476	38477	120	0.5	42894	42925	162	31.0	46238	46244	129	6.1	48756	48757	123	1.8
38480	38532	175	51.8	42930	42950	152	20.5	46249	46433	326	184.0	48795	48799	126	4.1
38533	38537	127	3.5	43046	43107	185	60.6	46438	46460	144	22.1	48815	48843	162	28.5
38553	38660	270	107.3	43109	43111	122	1.2	46462	46463	121	0.7	48848	48857	135	9.2
39152	39155	124	2.9	43113	43117	129	4.3	46465	46476	137	11.2	48863	48908	199	45.1
39165	39178	134	13.6	43124	43124	121	0.6	46480	46494	170	14.3	48914	48917	126	3.1
39179	39180	121	0.9	43169	43175	137	5.8	46508	46508	120	0.3	48918	48952	150	33.9
39204	39206	120	2.1	43178	43188	133	9.1	46510	46556	247	45.8	48992	48993	122	1.6
39216	39217	120	0.7	43281	43284	127	2.9	46559	46563	125	3.6	49002	49002	120	0.5
39318	39333	130	14.2	43292	43296	129	3.8	46593	46596	126	3.1	49049	49062	146	12.8
39383	39388	125	5.1	43345	43350	127	5.4	46624	46645	138	20.7	49065	49067	121	1.7

Table A.12: Defective Segments from LA60W4PMR23.6 (3 of 4)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
49116	49147	248	30.2	52645	52649	132	4.5	62527	62603	386	75.8	67896	67899	123	3.2
49147	49148	122	1.1	52660	52669	134	8.9	62627	62716	237	89.2	68009	68016	138	7.4
49152	49415	403	262.6	52678	52686	147	8.0	62741	62745	131	3.9	68025	68027	121	2.3
49427	49522	204	95.1	52687	52718	167	31.7	62755	62761	126	5.3	68035	68068	214	32.1
49525	49584	240	58.8	52815	52821	126	6.7	62773	62794	146	21.0	68136	68201	214	65.1
49626	49740	171	114.3	52914	52982	210	68.4	62797	62871	276	74.1	68422	68472	158	49.6
49741	49770	156	29.5	52999	53036	183	37.0	62878	62881	121	2.5	68657	68734	260	76.0
49835	49874	212	39.0	53099	53130	205	30.7	62885	62914	189	28.6	68902	68904	122	1.9
49880	49884	127	4.1	53168	53187	141	19.4	62917	62950	188	33.2	68906	68913	133	7.7
49887	49902	136	14.9	53189	53193	130	3.4	62998	63125	482	126.6	69001	69011	137	9.7
49923	50067	242	143.2	53226	53257	193	30.7	63264	63289	210	25.4	69067	69096	329	28.9
50380	50405	161	24.5	53258	53289	161	31.3	63408	63411	124	3.0	69210	69212	123	1.9
50407	50409	123	1.7	53291	53295	125	4.3	63977	63983	131	5.9	69229	69230	121	0.7
50430	50432	124	2.1	53323	53356	182	32.1	64082	64163	390	81.2	69259	69260	122	1.4
50435	50438	122	2.5	53361	53362	123	1.2	64167	64197	152	29.9	69267	69269	124	1.9
50440	50451	134	10.3	53925	53925	120	0.2	64201	64282	182	80.4	69271	69271	120	0.6
50483	50509	172	26.3	53935	53935	120	0.1	64313	64479	268	165.8	69306	69308	124	2.5
50516	50572	226	56.8	53942	53948	140	6.4	64483	64510	187	27.6	69339	69342	134	3.1
50576	50601	167	25.0	54115	54139	152	24.0	64512	64515	124	2.9	69350	69364	146	13.6
50608	50609	122	1.0	54465	54499	200	34.1	64516	64520	129	4.4	69374	69375	124	1.5
50611	50649	194	38.1	54540	54541	121	1.4	64552	64636	209	84.5	69388	69399	133	10.8
50650	50651	123	1.6	54606	54611	125	5.4	64669	64719	228	49.5	69400	69409	137	8.3
50653	50655	124	2.4	54620	54684	272	64.0	64737	64739	122	2.1	69412	69413	125	2.0
50664	50667	124	2.8	54712	54744	176	31.1	64740	64768	156	28.6	69443	69472	172	29.1
50677	50686	131	9.3	54776	54825	190	48.3	64769	64778	133	9.3	69475	69484	134	9.2
50687	50689	126	2.3	54832	54833	120	0.3	64787	64794	126	6.8	69489	69533	153	43.4
50690	50728	159	37.3	54844	54914	196	69.7	64797	64801	125	3.4	69536	69540	134	4.3
50752	50761	128	9.3	54918	54922	128	4.3	64835	64835	121	0.6	69557	69561	131	3.7
50785	50813	177	28.5	55093	55099	132	5.5	64837	64845	127	7.8	69569	69575	124	5.5
50822	50824	129	2.1	55898	55902	122	4.0	64848	64849	121	0.8	69575	69577	127	2.5
50827	50900	247	72.8	55902	55915	136	12.6	64864	64890	170	26.7	69579	69579	120	0.2
50903	51011	223	108.5	55919	55921	125	2.2	64891	64891	120	0.2	69638	69649	135	10.9
51015	51018	122	2.9	58531	58614	201	83.5	64893	64928	207	35.5	69650	69651	121	1.0
51033	51033	120	0.3	58627	58631	128	4.1	64931	65018	450	87.0	69657	69685	213	28.3
51048	51050	123	1.5	58949	58962	135	13.3	65826	65853	170	27.4	69712	69713	122	1.6
51082	51084	124	1.6	58966	58973	125	6.9	66020	66038	157	18.1	69714	69714	120	0.4
51084	51145	179	60.5	59190	59214	161	24.1	66167	66169	122	2.0	69720	69725	130	5.8
51147	51154	132	7.3	59245	59261	148	15.9	66170	66173	121	2.9	69726	69728	122	1.6
51161	51222	198	60.6	59505	59507	121	2.6	66178	66190	152	12.1	69730	69733	124	3.6
51229	51254	146	25.0	59603	59606	125	2.5	66260	66266	137	5.6	69735	69737	123	2.1
51259	51346	228	87.5	59704	59759	249	54.9	66354	66458	370	104.5	69740	69744	126	3.9
51363	51412	170	49.1	59788	59790	123	2.4	66460	66619	344	158.8	69781	69782	121	0.8
51413	51414	125	1.6	60020	60048	249	28.1	66648	66656	141	7.2	69789	69794	130	4.9
51426	51459	192	33.8	60064	60141	232	77.4	66660	66685	167	24.8	69800	69806	137	6.2
51460	51463	122	2.8	60145	60155	133	9.7	66692	66720	178	28.6	69807	69808	121	0.9
51500	51545	181	45.0	60188	60378	362	190.1	66724	66729	126	4.0	69810	69815	125	4.5
51566	51573	132	6.7	61065	61157	301	92.0	66740	66769	176	29.7	69819	69819	120	0.7
51620	51621	121	0.9	61161	61246	222	85.8	66771	66776	132	4.3	69823	69836	140	13.0
51622	51672	167	50.0	61269	61297	176	27.6	66834	66841	139	7.3	69842	69868	187	25.8
51936	51941	124	4.8	61308	61376	237	68.2	66899	66902	126	3.0	69904	69933	208	29.1
51978	51981	120	2.4	61451	61456	128	4.3	66962	66965	127	2.6	70299	70299	121	0.6
52042	52054	138	11.6	61491	61518	204	26.5	66968	66979	134	11.1	70309	70314	126	4.6
52078	52087	131	9.5	61836	61838	125	2.5	66981	66983	129	2.2	71071	71073	122	1.6
52090	52091	121	1.3	61875	61918	165	43.3	67003	67038	193	34.9	71084	71086	123	2.4
52235	52246	135	10.9	61928	61935	123	6.5	67218	67289	201	71.8	71087	71088	121	1.1
52248	52250	122	1.8	61970	61981	125	10.4	67341	67363	140	21.5	71090	71090	121	0.5
52412	52439	154	27.0	62062	62099	192	37.7	67596	67609	138	13.4	71135	71137	124	1.9
52462	52486	156	23.7	62245	62247	125	1.9	67611	67611	120	0.5	71150	71156	135	6.6
52543	52546	125	2.9	62307	62337	160	29.2	67630	67670	165	39.8	71252	71261	133	9.3
52557	52564	134	6.8	62422	62433	152	11.4	67682	67689	132	7.0	71274	71275	124	1.6
52574	52634	202	59.7	62443	62447	126	4.1	67693	67718	149	25.7	71379	71390	131	11.3

Table A.12: Defective Segments from LA60W4PMR23.6 (4 of 4)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
71397	71404	139	7.1	75155	75176	140	20.8	78033	78045	139	11.7	83565	83571	132	6.4
71407	71434	164	27.9	75245	75273	201	27.6	78065	78096	205	30.9	83574	83604	150	30.5
71693	71721	215	27.2	75311	75323	136	11.3	78099	78114	137	14.7	83652	83860	482	207.4
71731	71763	163	31.7	75433	75454	153	21.2	78131	78155	166	24.4	83866	83955	208	89.2
71773	71776	126	2.9	75530	75535	137	5.7	78178	78187	135	9.3	83980	83982	121	1.1
71781	71783	123	1.7	75537	75552	137	15.0	78252	78254	123	2.0	83987	84426	1003	439.1
71787	71801	149	14.8	75574	75584	141	10.2	78257	78277	152	19.1	84442	84500	384	58.1
71828	71841	154	13.9	75594	75632	281	37.6	78511	78518	131	7.6	84540	84565	174	24.7
71842	71947	314	104.9	75662	75676	142	14.2	78519	78525	126	5.8	84616	84732	542	115.5
71948	71950	125	1.6	75762	75772	133	9.1	79244	79281	221	36.8	84748	84750	123	1.7
71952	71976	158	24.4	75780	75908	316	127.3	79596	79638	197	42.6	84752	84754	121	2.4
71982	71991	136	8.7	75948	75957	143	8.8	79640	79648	157	8.2	84756	84758	122	1.5
72126	72135	127	8.9	75964	75973	137	9.2	79687	79709	158	22.4	84761	84762	120	1.3
72145	72148	130	2.9	76005	76009	126	4.4	79721	79746	168	25.3	84763	84765	122	2.1
72150	72157	128	7.8	76014	76024	132	9.5	79865	79869	127	4.2	84767	84794	164	27.6
72164	72202	169	37.2	76028	76028	120	0.5	79967	79968	121	1.0	84796	84801	130	5.5
72207	72210	125	2.6	76032	76039	138	7.1	79969	79978	135	9.1	84838	84876	291	38.2
72211	72213	121	1.6	76041	76074	168	33.0	79996	80030	215	34.6	84891	84985	287	93.5
72289	72314	174	24.8	76165	76176	138	10.6	80086	80105	158	18.4	85064	85091	165	27.1
72347	72380	171	33.9	76182	76182	120	0.3	80320	80379	230	59.3	85112	85113	122	1.0
72388	72395	132	6.7	76217	76242	149	24.9	80390	80394	124	3.9	85114	85283	436	169.4
72541	72564	143	23.5	76256	76260	126	4.0	80398	80402	133	4.3	85330	85335	132	4.9
72673	72700	182	27.1	76356	76357	125	1.8	80407	80415	145	8.2	85337	85350	126	12.6
72744	72758	148	13.9	76384	76385	121	0.7	80417	80422	126	5.0	85375	85398	173	22.5
72762	72774	130	11.9	76395	76395	121	0.7	80451	80476	157	25.2	85420	85450	185	30.0
72777	72779	122	1.8	76397	76401	126	4.3	80482	80507	152	25.5	85514	85575	269	60.3
72784	72819	187	34.5	76415	76420	137	4.7	80514	80515	122	1.1	85581	85583	122	1.9
72823	72829	136	6.5	76433	76434	121	0.7	80517	80551	194	33.9	85584	85588	125	3.8
72835	72860	156	24.6	76461	76462	120	0.5	80575	80691	401	115.7	85684	85720	198	35.3
72888	72902	142	14.0	76538	76560	149	21.7	80696	80747	193	51.4	85722	85732	147	9.8
72903	72922	136	18.9	76561	76562	124	1.6	80757	80759	121	2.0	85735	85839	319	103.5
72923	72937	147	14.3	76588	76590	124	1.4	80760	80895	384	135.5	85842	85843	120	0.5
73011	73014	128	3.0	76623	76685	259	61.6	80914	80997	332	83.2	85877	85970	301	93.2
73020	73032	130	11.9	76698	76700	123	2.5	81003	81118	474	115.2	85970	85971	121	1.0
73035	73045	137	10.2	76702	76731	190	28.7	81124	81138	158	14.0	85971	85974	124	2.7
73047	73060	154	13.0	76733	76759	174	26.0	81141	81278	352	137.1	85975	85977	122	1.8
73133	73161	169	28.0	76761	76762	121	0.6	81278	81571	414	293.0	85981	86029	191	48.0
73162	73188	149	25.7	76764	76764	120	0.6	81607	81616	133	8.9	86035	86037	123	1.8
73219	73219	121	1.0	76766	76886	214	120.0	81619	81659	164	39.9	86080	86104	151	24.4
73253	73263	144	9.8	76888	76891	126	2.6	81664	81669	136	5.7	86402	86439	187	37.2
73266	73269	125	3.6	76893	76894	121	1.0	81677	81971	395	294.3	86534	86537	128	3.3
73315	73350	451	35.3	76940	76942	122	1.4	82002	82276	436	274.2	86543	86551	135	8.5
73358	73369	142	10.8	76972	76976	127	4.3	82280	82282	124	1.6	86566	86599	205	33.4
73370	73387	153	16.6	76980	76985	132	4.2	82318	82323	124	4.5	86607	86608	122	1.5
73453	73474	147	20.9	77015	77072	203	57.3	82347	82601	509	254.3				
73500	73543	280	42.2	77074	77080	130	6.3	82641	82644	125	2.8				
73548	73550	123	1.6	77092	77127	208	35.0	82647	82704	179	57.3				
73554	73569	136	15.2	77140	77142	121	1.6	82732	82876	337	144.0				
73629	73630	122	1.2	77153	77194	265	40.9	82884	82893	147	9.5				
73648	73650	122	1.3	77228	77253	175	25.1	82899	82926	162	26.3				
73652	73661	131	9.0	77297	77397	281	100.4	82928	82955	185	27.4				
74132	74189	245	57.1	77400	77405	124	4.9	82962	82969	128	6.7				
74274	74296	167	22.6	77422	77458	197	36.4	82978	83020	202	41.8				
74830	74857	264	27.1	77516	77517	120	1.0	83024	83031	136	7.5				
74899	74901	125	2.2	77519	77526	128	7.1	83035	83124	267	88.3				
74907	74981	216	74.3	77533	77536	125	2.9	83130	83247	295	117.5				
75021	75021	120	0.3	77550	77573	141	23.5	83254	83304	209	49.5				
75031	75041	134	9.3	77577	77606	155	29.7	83326	83392	207	66.3				
75042	75079	173	36.9	77698	77777	242	78.9	83456	83512	238	56.1				
75098	75099	124	1.6	77849	77878	215	29.8	83517	83521	126	4.4				
75101	75118	138	16.8	77991	78032	220	40.8	83526	83564	169	37.7				

Los Angeles 5 Northbound Lane 2 PM 73.6

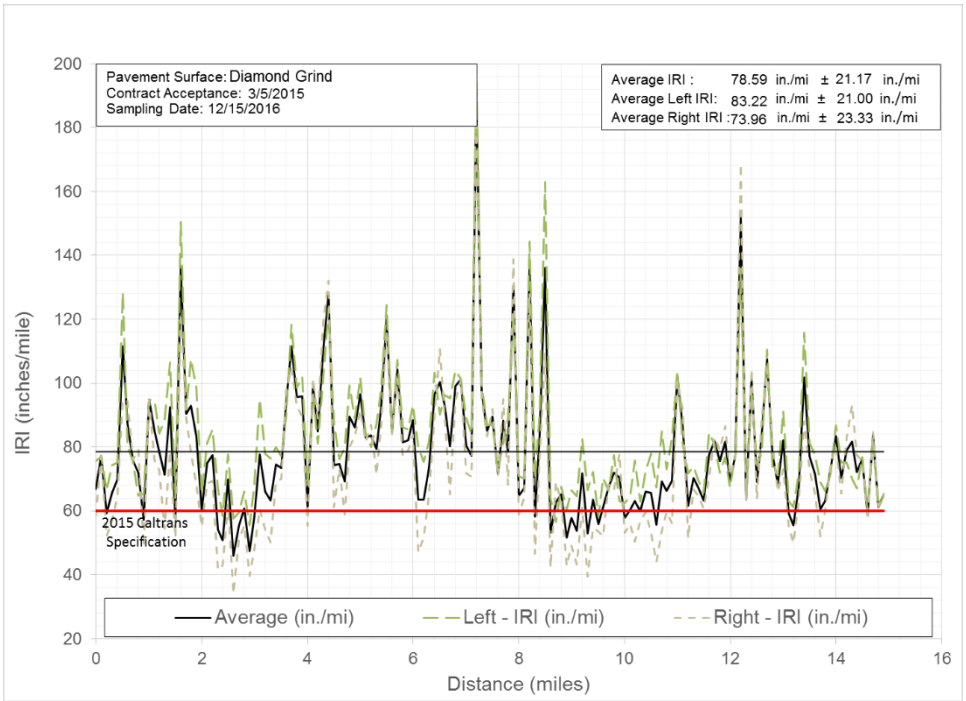

Figure A.13: LA5N2PM73.6

Table A.13: Defective Segments from LA5N2PM73.6

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
73	98	153	24.4	9335	9340	131	5.1	21629	21653	139	24.3	30309	30347	183	38.1
526	530	129	4.1	9351	9353	123	2.1	21659	21665	132	6.6	30352	30355	123	2.3
974	1004	292	30.8	9368	9384	132	15.4	21670	21672	124	2.5	30362	30379	136	16.3
1006	1039	272	33.1	9482	9504	160	22.0	21676	21678	124	1.9	30379	30386	137	6.8
1460	1467	130	7.2	9504	9507	125	2.5	21680	21714	381	34.1	30395	30408	145	13.1
1952	1985	236	32.6	9682	9715	172	32.1	21753	21765	141	11.7	30412	30439	160	27.0
2305	2333	220	28.1	9743	9761	127	18.5	21766	21769	124	3.1	30471	30520	300	49.6
2801	2804	121	3.0	9761	9763	121	1.6	21774	21777	128	2.6	30912	30927	140	15.7
2910	2912	123	2.1	10208	10209	121	0.7	21787	21806	146	19.8	30950	30967	148	16.8
2915	2930	146	15.0	10209	10235	177	26.0	21870	21872	124	2.1	31090	31104	137	14.4
3015	3017	122	2.1	10288	10293	128	5.0	21873	21877	127	3.7	31109	31114	128	4.8
3046	3061	132	14.7	10295	10306	140	10.7	21922	21952	196	30.1	31124	31137	154	13.7
3063	3068	131	5.1	10911	10936	192	25.2	22415	22447	172	32.3	31156	31244	185	88.1
3093	3135	149	41.9	11241	11284	198	42.8	22453	22497	289	43.2	31798	31816	136	18.5
3136	3146	144	10.5	11298	11302	127	4.7	22498	22505	130	6.6	31857	31863	129	5.7
3146	3151	128	4.9	11308	11316	137	7.8	22532	22540	140	8.4	31863	31864	120	0.7
3244	3248	129	3.9	11317	11321	124	3.5	22541	22558	145	17.0	31870	31875	126	4.8
3491	3501	131	9.4	12015	12017	123	2.2	22740	22779	209	38.5	32033	32093	240	59.8
3555	3555	120	0.2	13476	13497	140	21.2	22794	22824	277	29.9	33778	33780	124	2.1
3565	3600	295	35.4	14621	14623	123	1.6	23196	23278	755	82.6	33841	33844	127	2.6
3638	3640	122	1.8	14626	14627	121	1.5	23340	23346	124	5.7	33992	34040	192	47.6
3801	3809	125	7.2	14634	14641	130	7.0	23356	23356	120	0.2	34274	34293	146	19.9
3918	3921	122	3.0	16720	16785	196	65.0	23424	23506	626	82.0	34483	34554	616	71.0
4423	4428	130	4.2	17403	17411	135	8.0	23608	23609	122	1.9	34640	34669	224	29.0
4618	4622	124	3.5	17542	17557	145	15.4	23611	23612	120	1.6	35114	35159	191	44.6
4625	4627	121	2.1	17558	17566	133	8.7	24607	24615	135	7.6	35160	35162	120	1.6
4635	4641	129	6.2	18209	18221	151	12.7	24624	24627	123	2.1	35174	35177	129	3.2
5290	5311	136	21.2	18223	18228	129	4.3	24629	24630	121	1.1	35260	35284	157	23.8
5349	5353	127	4.4	18283	18331	253	47.7	24643	24643	120	0.6	36041	36043	125	2.4
5362	5389	227	27.6	18372	18373	120	0.7	24661	24664	127	3.4	36054	36057	129	3.4
5520	5525	122	5.3	18528	18540	128	12.2	24710	24742	246	31.7	36099	36109	128	10.0
5551	5567	141	16.7	19043	19067	173	24.0	25414	25425	139	11.3	36120	36120	120	0.5
5596	5614	154	17.9	19147	19173	198	25.3	25429	25458	236	29.1	36220	36242	144	22.6
5764	5786	145	21.8	19220	19224	126	4.0	25605	25608	123	2.5	36267	36300	157	33.7
6142	6162	165	20.6	19286	19313	189	26.7	26231	26256	151	24.9	36327	36351	164	23.7
6184	6210	148	26.2	19374	19401	147	26.2	26264	26305	284	40.4	36405	36482	200	77.0
6233	6258	139	24.8	19401	19402	121	0.8	26391	26393	122	1.9	36627	36661	188	34.1
6324	6353	175	29.4	19455	19476	148	20.8	26837	26921	366	83.8	36665	36679	142	13.1
6539	6563	184	23.9	19513	19517	124	3.9	27420	27450	300	30.1	36857	36894	187	37.1
7573	7592	151	18.9	19532	19538	133	5.7	27452	27454	123	1.8	36943	36971	193	27.7
7592	7594	121	1.7	19570	19622	201	52.2	27533	27557	148	23.9	37075	37089	131	13.8
7608	7620	134	11.6	19672	19681	132	9.1	27695	27745	207	49.8	37106	37107	120	0.8
7663	7690	189	26.6	19682	19694	141	11.9	27795	27821	172	26.1	37593	37633	186	39.5
7707	7712	125	4.8	19698	19703	130	4.3	28151	28153	121	1.9	37692	37722	199	30.3
7713	7720	129	6.7	19709	19711	124	2.4	28882	28894	152	12.4	38106	38211	668	104.7
7823	7838	155	15.3	19717	19723	134	5.9	28896	28922	169	26.0	38254	38334	338	80.4
8486	8488	122	2.1	19753	19775	149	22.1	28927	28928	122	1.1	38337	38386	333	49.1
8491	8492	121	1.0	19810	19842	196	32.8	28928	28943	137	14.7	38389	38402	144	12.8
8494	8503	128	8.9	19920	19950	217	30.5	28947	28949	125	2.8	38408	38415	132	6.5
8549	8574	172	24.5	20224	20267	235	43.7	28974	29098	267	124.3	38800	38801	120	0.3
8595	8634	179	38.8	20375	20424	211	48.5	29101	29109	127	8.1	38803	38888	185	85.2
8635	8636	126	1.9	20424	20425	120	0.6	29157	29157	120	0.2	38891	38912	133	21.5
8650	8660	133	10.0	20441	20443	124	2.6	29161	29181	137	19.9	38976	38976	121	0.7
8663	8663	120	0.7	20454	20466	137	12.4	29183	29189	133	6.6	38977	39003	195	26.3
8666	8668	122	2.7	20468	20470	121	1.6	29194	29197	129	3.1	39328	39395	254	67.0
8691	8719	253	28.4	20476	20478	124	1.9	29223	29284	260	60.9	39467	39476	139	9.0
8756	8806	190	50.1	20492	20517	162	24.4	29293	29318	174	25.6	39895	39947	153	51.8
8810	8841	169	31.0	20747	20766	144	19.2	29643	29714	300	70.5	39962	40010	158	47.9
8879	8913	221	34.2	20769	20771	121	2.6	29715	29716	120	1.1	40031	40106	233	75.5
8938	8938	120	0.2	20786	20810	158	24.4	29996	30001	128	5.2	40245	40250	129	5.0
9067	9093	184	26.2	20836	20870	269	34.3	30025	30038	135	12.3	40255	40260	125	5.4
9236	9253	149	17.7	20874	20916	172	41.3	30041	30047	127	5.4	40272	40297	163	25.0

Table A.13: Defective Segments from LA5N2PM73.6 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
40604	40643	195	39.0	62193	62240	224	47.0	75485	75485	120	0.2				
40663	40664	120	0.3	62495	62512	145	16.4	75486	75512	168	25.7				
40664	40691	159	26.8	62514	62544	200	30.7	75521	75556	187	35.7				
40755	40786	265	30.9	62917	62942	160	24.5	75846	75932	228	85.2				
40853	40900	162	47.5	63009	63013	123	3.8	75937	75944	130	7.1				
40905	40905	121	0.6	63158	63164	127	5.1	76275	76300	162	25.2				
41172	41173	122	1.2	63166	63168	128	2.8	76316	76336	156	20.3				
41438	41439	121	1.7	63209	63220	136	11.2	76556	76558	123	2.5				
41617	41625	133	8.4	63233	63237	130	4.1	76561	76563	128	2.9				
41788	41928	444	139.9	63279	63283	131	4.6	77028	77056	173	27.3				
41983	42006	163	23.4	63291	63294	125	2.6	77610	77626	142	15.3				
42012	42099	325	87.1	64314	64341	231	26.7	77708	77724	143	16.1				
42391	42412	140	20.9	64578	64836	570	257.8	77762	77769	132	7.1				
42892	42895	122	2.8	64916	64917	120	1.0	77796	77818	141	22.2				
43242	43392	322	149.2	64919	64932	131	12.9	78021	78026	124	4.3				
43409	43507	411	98.5	65636	65640	126	4.0	78031	78033	125	2.7				
44690	44725	194	35.5	65649	65651	125	2.0	78298	78301	126	3.4				
44747	44805	268	57.6	65672	65674	123	1.4	78335	78337	121	1.6				
44882	44944	232	61.4	65677	65764	288	87.4	78516	78521	125	4.4				
44946	44961	129	15.3	65793	65794	120	0.7	79047	79051	162	3.4				
44965	44971	127	5.8	65803	65805	123	1.9								
44971	44979	132	7.4	65806	65818	135	12.1								
45063	45074	138	11.3	65821	65872	169	51.8								
45082	45151	296	69.6	66355	66370	153	14.6								
45207	45219	134	12.0	66641	66655	133	13.9								
45251	45252	120	1.3	66661	66673	140	12.1								
46383	46388	135	5.4	66735	66760	173	24.8								
46389	46391	122	1.8	66981	67011	192	29.9								
46428	46458	209	29.9	67059	67124	227	65.0								
46461	46461	120	0.5	67204	67236	172	32.6								
46497	46501	127	3.6	67266	67283	130	16.8								
46501	46502	120	0.2	67336	67350	147	13.9								
46548	46548	120	0.4	67470	67479	140	9.5								
46549	46556	131	6.9	67856	67884	284	27.9								
46558	46565	127	6.2	67920	67944	152	24.5								
48933	48963	176	30.0	67954	67978	159	23.9								
48964	48964	120	0.2	68737	68763	167	25.5								
48968	48977	129	9.2	68764	68765	121	0.7								
51321	51328	126	6.6	68776	68816	202	39.5								
52173	52209	212	35.8	70409	70416	124	6.4								
52276	52308	176	32.2	70976	71000	153	23.6								
52354	52399	187	44.6	71009	71010	122	1.3								
52400	52403	124	2.7	71021	71052	179	31.1								
58275	58323	159	48.1	71058	71064	128	5.9								
58351	58352	123	1.6	71080	71082	125	1.8								
58357	58368	138	11.3	71131	71141	141	10.2								
58369	58372	125	2.6	71145	71156	153	10.9								
58372	58372	120	0.2	71178	71203	162	25.2								
58399	58446	328	47.0	71596	71636	212	39.8								
58524	58528	133	3.4	73789	73792	128	3.0								
58544	58549	124	5.1	73825	73827	122	1.8								
58603	58603	120	0.5	73828	73837	133	8.4								
58610	58610	120	0.7	73838	73843	129	4.8								
58612	58660	241	47.2	73871	73875	123	3.6								
58910	58934	154	23.3	73935	73966	154	31.5								
58959	58976	145	17.9	74054	74060	125	5.8								
58981	58985	131	3.6	74385	74401	143	16.7								
58994	59027	200	32.6	75224	75233	134	9.6								
60025	60046	150	21.6	75246	75247	124	1.8								
60101	60130	229	28.9	75261	75267	134	5.5								
60177	60203	165	26.3	75313	75342	231	29.3								

Los Angeles 5 Southbound Lane 2 PM 88.6

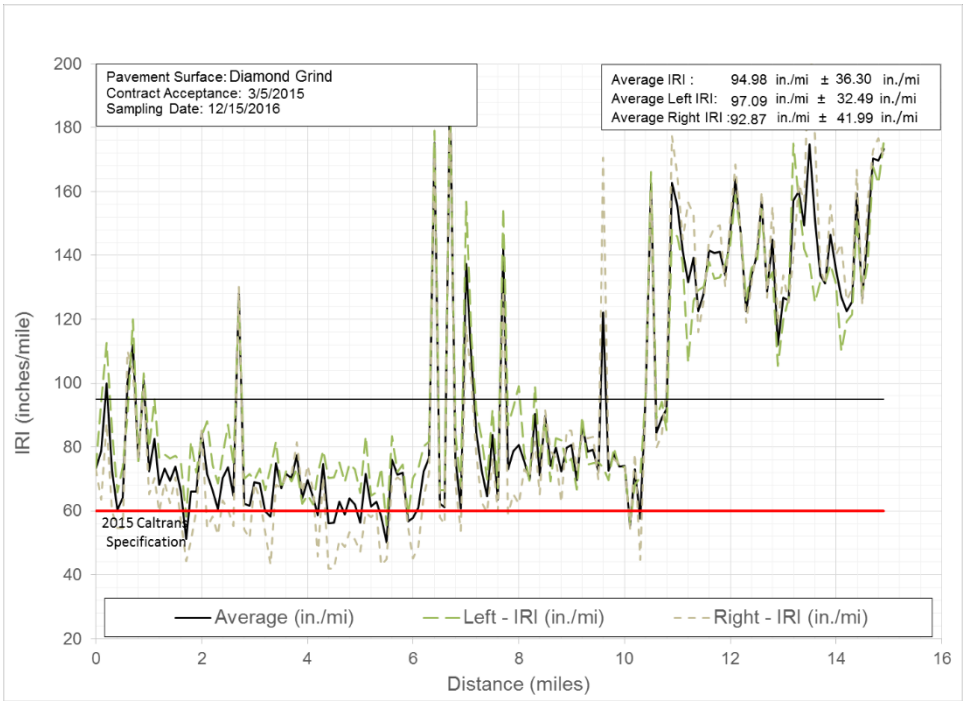

Figure A.14: LA5S2PM88.6

Table A.14: Defective Segments from LA5S2PM88.6

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
50	56	127	5.9	18131	18148	151	17.8	37578	37626	253	47.8	48354	48358	125	3.9
57	82	160	25.5	18376	18379	126	2.6	37857	37858	121	1.3	48691	48732	280	40.9
1220	1249	162	28.8	18383	18388	126	4.5	37862	37879	161	17.5	48994	49005	141	10.8
1254	1292	158	37.3	19021	19036	131	15.0	37975	38009	183	33.5	49071	49072	123	1.1
1357	1389	177	32.8	19680	19701	159	21.7	38015	38022	125	7.7	49072	49094	146	21.7
1463	1475	133	12.1	20513	20515	123	1.6	38092	38096	125	4.2	49101	49130	239	29.0
1512	1518	130	5.7	20521	20523	120	1.1	38098	38107	127	8.9	49399	49400	123	1.7
1532	1536	128	3.6	20553	20577	148	23.9	38161	38168	131	7.4	49405	49413	126	7.5
2007	2020	137	13.5	20606	20616	136	10.2	38178	38204	156	25.6	49414	49418	126	4.3
2057	2086	190	28.8	21448	21477	171	28.4	39927	39933	123	5.4	49471	49472	120	0.9
2557	2562	130	4.9	21488	21493	128	5.7	40017	40021	123	3.4	49476	49479	121	2.3
3208	3210	130	2.8	21502	21509	126	7.2	40024	40042	153	18.7	49481	49488	130	7.0
3218	3251	273	32.8	21510	21519	128	8.4	40082	40084	122	2.1	49576	49602	161	25.6
3270	3271	122	1.6	21953	21953	121	0.9	40845	40926	490	80.6	49622	49647	174	24.4
3272	3300	158	28.1	21960	21962	121	2.0	40936	41010	296	73.7	49699	49728	253	28.8
3301	3303	126	2.9	21967	21972	124	4.7	41015	41018	123	2.5	49916	49933	140	17.1
3321	3322	121	0.7	22045	22068	164	23.9	41057	41082	143	24.8	50601	50645	178	44.0
3343	3350	127	7.2	22082	22091	129	9.0	41163	41188	176	25.3	50715	50745	168	29.9
3354	3365	134	10.1	22742	22759	141	17.3	42181	42182	123	1.3	50748	50866	193	118.1
3433	3441	141	8.5	22788	22799	139	10.9	42183	42208	159	25.4	50879	50925	1304	46.2
3445	3458	140	12.3	22824	22826	122	2.0	42635	42637	125	2.4	50932	50966	540	33.9
3459	3471	155	11.5	22840	22862	151	21.7	42758	42760	122	2.5	50967	50967	120	0.2
3480	3530	222	49.8	23056	23070	141	14.4	42766	42767	121	1.5	51234	51236	123	2.1
3542	3547	133	5.3	23722	23729	136	7.1	42769	42773	128	4.3	51241	51248	134	7.6
3549	3567	142	18.5	24625	24661	164	36.2	42774	42779	126	4.7	51349	51350	120	0.5
3568	3595	192	27.8	28078	28100	147	22.0	43271	43271	120	0.3	51351	51361	130	10.1
3753	3843	200	89.2	29762	29792	189	30.4	43414	43427	134	13.3	51365	51365	120	0.3
3843	3848	125	4.7	29837	29847	128	10.2	43431	43432	122	1.6	51534	51587	179	53.3
3865	3924	231	58.9	29897	29912	139	14.8	43498	43520	160	22.1	52001	52027	165	25.4
4060	4060	120	0.2	30557	30568	129	11.5	43915	43923	128	8.0	52030	52032	125	2.1
4060	4072	143	11.9	30773	30808	173	35.3	43929	43977	342	47.8	52067	52077	140	10.3
4074	4079	130	4.5	33103	33122	145	19.8	44259	44271	141	11.4	52089	52092	127	3.4
4142	4150	139	8.1	33136	33141	125	5.9	44952	44954	122	1.6	52248	52251	125	2.6
4156	4158	121	2.4	33688	33690	124	2.4	45045	45059	139	13.9	52441	52446	127	4.3
4434	4465	158	31.3	33773	33891	266	117.5	45194	45235	164	40.8	52692	52694	125	2.4
4492	4493	120	0.6	33981	33983	124	2.5	45241	45245	136	4.1	53172	53203	271	30.8
4567	4593	177	26.0	33987	33987	120	0.3	45349	45362	150	12.8	53275	53297	141	22.6
4599	4627	147	27.2	33987	34001	133	13.6	45368	45376	141	8.0	53919	53948	159	28.8
4635	4658	145	22.9	34033	34124	677	91.0	45467	45496	264	29.4	54949	54953	130	4.3
4936	4945	139	9.9	34131	34144	134	12.5	45727	45752	182	24.9	54955	55011	374	55.7
5005	5030	162	25.0	34145	34154	138	8.8	45938	45947	127	8.7	55040	55046	135	6.2
5031	5115	210	84.0	34252	34260	129	8.4	45956	45956	120	0.2	55170	55176	125	5.5
5122	5147	169	25.3	34512	34515	123	2.8	46101	46109	134	7.8	55218	55224	129	6.7
5996	6001	133	5.7	34520	34522	123	2.6	46116	46122	122	5.4	55231	55242	138	11.1
6042	6046	126	3.8	34905	34909	129	4.7	46122	46122	120	0.5	55557	55560	128	3.0
7269	7293	166	23.3	34913	34914	121	1.0	46239	46245	129	6.2	55564	55752	390	188.2
7318	7336	150	18.5	35443	35470	221	26.2	46438	46441	123	2.7	55755	55810	198	54.8
7415	7443	220	27.7	35490	35502	134	12.1	47000	47011	137	11.5	55818	55896	336	78.8
7552	7555	121	2.7	35585	35690	599	104.7	47021	47028	155	7.6	55906	55918	128	12.3
8141	8158	133	17.4	35700	35732	212	32.0	47030	47036	131	5.6	55973	55983	130	9.2
10947	10972	175	25.5	35736	35765	208	29.4	47036	47037	120	0.8	55988	55993	128	5.1
10998	11025	192	27.1	35784	35787	124	2.3	47038	47069	195	30.4	56733	56787	226	53.4
12086	12110	152	24.5	35789	35884	729	95.1	47361	47373	136	12.0	56803	56831	196	28.0
13010	13015	130	4.3	35885	35887	124	2.1	47399	47404	123	4.7	56839	56860	153	21.6
13023	13034	132	11.3	35913	35961	239	47.6	47409	47410	120	0.8	57369	57379	140	10.3
13732	13733	121	0.9	37112	37136	147	23.8	47649	47656	123	6.5	57379	57380	120	0.2
14402	14408	130	5.8	37149	37192	292	42.3	47669	47691	153	22.1	57381	57384	122	2.6
14411	14647	361	236.2	37259	37270	142	10.7	47846	47877	198	30.4	57494	57591	511	97.4
14814	14841	264	26.5	37278	37283	132	5.1	47946	47948	122	1.8	57623	57805	351	181.8
16106	16125	141	18.8	37379	37459	285	80.4	48159	48163	126	4.1	57808	57844	179	36.1
16318	16345	173	26.6	37468	37524	191	55.7	48174	48175	122	1.2	57869	57952	241	83.3
16510	16512	121	1.9	37540	37560	148	20.1	48241	48263	134	22.3	57960	57986	182	25.8

Table A.14: Defective Segments from LA5S2PM88.6 (2 of 3)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
57997	58061	283	63.5	61339	61380	164	41.3	64782	64784	126	2.1	66633	66710	252	77.4
58070	58076	128	6.9	61411	61442	182	30.7	64786	64836	190	49.5	66719	66721	123	1.5
58078	58225	195	146.7	61470	61481	149	10.9	64851	64900	196	48.8	66724	66961	283	236.5
58226	58365	306	139.7	61484	61484	121	0.7	64910	64915	130	4.9	66982	67030	159	47.7
58370	58381	151	11.2	61487	61499	132	11.9	64934	64998	193	64.7	67032	67062	170	29.3
58423	58547	267	123.5	61500	61527	152	26.2	65005	65007	121	1.1	67110	67134	155	23.6
58550	58559	125	9.4	61527	61681	239	153.9	65009	65009	121	0.7	67150	67184	174	34.0
58562	58563	121	0.9	61708	61737	181	29.0	65012	65037	161	25.3	67185	67189	131	3.4
58571	58578	132	7.0	61739	61941	310	201.9	65057	65059	125	2.5	67189	67249	190	59.3
58582	58739	208	156.9	61942	61943	122	1.3	65060	65074	147	14.1	67251	67253	123	1.7
58767	58769	123	1.4	62009	62010	122	1.5	65078	65087	130	8.4	67256	67288	179	32.2
58772	58840	183	68.4	62014	62040	144	25.8	65088	65144	163	56.3	67343	67377	212	34.6
58848	58850	124	2.1	62061	62172	205	111.7	65183	65187	124	3.9	67451	67532	188	80.4
58861	58898	166	37.9	62197	62226	161	29.8	65213	65252	220	38.9	67538	67542	129	3.7
58905	58957	216	52.0	62229	62241	155	11.8	65277	65282	125	4.9	67550	67569	147	19.1
58967	58991	135	23.8	62248	62299	166	51.0	65283	65284	121	1.1	67571	67578	129	7.6
59016	59016	120	0.4	62311	62316	129	5.5	65286	65293	135	6.7	67580	67581	124	1.6
59016	59123	188	106.9	62319	62358	181	38.5	65345	65347	122	1.5	67583	67584	123	1.3
59139	59167	173	28.3	62359	62522	213	162.8	65354	65356	126	2.3	67585	67770	324	185.3
59188	59339	275	151.2	62524	62587	177	62.3	65366	65370	134	3.9	67775	67776	123	1.6
59366	59404	200	38.0	62587	62746	195	158.3	65371	65379	132	7.7	67781	67786	129	4.6
59431	59492	232	61.3	62751	62753	126	2.1	65534	65569	248	35.0	67790	67799	128	8.8
59497	59586	207	89.3	62760	62785	163	25.2	65590	65630	231	40.6	67801	67834	211	33.1
59597	59604	133	7.0	62788	62792	123	3.7	65642	65644	126	2.4	67836	67837	123	1.6
59604	59676	187	71.2	62806	62810	131	4.3	65655	65662	142	6.6	67856	67863	132	6.5
59677	59678	121	1.3	62884	62908	163	24.5	65676	65678	124	2.6	67880	67909	180	29.1
59685	59737	187	52.2	62940	62974	204	33.9	65680	65681	121	0.8	67920	67954	217	33.7
59760	59765	136	5.4	62975	62978	122	2.3	65690	65696	134	6.9	68004	68009	127	5.5
59805	59808	129	3.6	62986	63010	144	23.9	65699	65700	120	0.6	68017	68027	133	10.7
59837	59890	186	53.1	63048	63126	225	77.8	65700	65702	121	1.1	68050	68100	173	50.2
59926	60076	284	149.7	63141	63170	175	28.8	65702	65726	158	23.6	68133	68140	129	7.9
60091	60096	136	5.2	63172	63204	176	32.2	65793	65795	125	2.0	68147	68147	120	0.2
60100	60121	145	21.4	63222	63224	121	1.6	65797	65839	169	42.3	68197	68210	137	12.6
60122	60212	212	90.1	63234	63236	123	1.6	65852	65914	176	62.2	68212	68217	132	5.1
60213	60225	128	12.0	63249	63292	172	43.1	65920	65923	125	3.3	68292	68373	237	81.2
60278	60286	129	7.6	63292	63332	178	39.6	65925	65986	187	61.2	68424	68451	162	26.9
60320	60321	121	1.4	63334	63340	130	6.4	66021	66022	121	1.1	68460	68464	131	3.5
60327	60357	146	29.7	63354	63381	178	27.1	66023	66111	204	88.4	68476	68484	138	7.5
60400	60405	130	5.3	63386	63391	130	5.0	66121	66124	126	3.3	68491	68500	136	9.5
60408	60448	165	39.5	63401	63454	191	53.1	66125	66212	191	86.9	68528	68564	190	36.0
60450	60458	129	8.1	63518	63635	226	116.5	66238	66238	120	0.4	68568	68568	121	0.7
60463	60464	120	0.9	63635	63643	126	7.3	66239	66245	132	6.2	68576	68577	122	1.6
60472	60487	139	15.1	63678	63700	151	21.9	66258	66259	122	0.9	68587	68600	142	12.8
60491	60526	171	34.5	63726	63836	231	110.3	66261	66262	121	0.7	68642	68678	201	35.9
60535	60561	153	25.5	63856	63961	288	105.3	66264	66264	120	0.2	68692	68752	276	60.1
60577	60581	125	3.6	63990	64043	197	52.8	66270	66283	141	13.9	68794	68892	205	97.5
60630	60672	169	41.9	64044	64289	223	245.0	66301	66316	141	15.5	68910	68912	121	2.4
60772	60773	120	0.4	64296	64298	125	2.1	66319	66319	121	0.9	68915	68946	168	31.2
60773	60805	162	32.2	64301	64408	243	107.1	66321	66322	121	0.6	68973	68975	123	2.8
60807	60818	139	11.0	64408	64446	171	37.6	66338	66424	245	85.9	69064	69073	138	8.4
60846	60863	142	16.5	64446	64447	122	0.9	66435	66438	125	2.7	69094	69127	239	32.3
60929	60931	123	2.7	64453	64453	121	0.8	66443	66443	120	0.2	69188	69240	250	51.2
60941	60945	128	3.9	64458	64459	121	1.0	66445	66445	120	0.2	69241	69244	124	2.7
60958	60962	126	3.2	64460	64461	121	0.7	66451	66479	154	28.2	69245	69247	124	2.4
60963	60965	124	2.0	64465	64503	160	38.1	66482	66485	123	3.0	69251	69277	165	25.8
60966	61024	222	57.4	64516	64558	252	41.7	66486	66489	127	2.4	69278	69281	129	3.4
61057	61061	134	4.2	64561	64562	122	1.2	66489	66577	195	87.4	69351	69358	135	6.6
61101	61181	267	80.7	64563	64700	216	137.6	66584	66597	138	13.0	69359	69359	120	0.2
61182	61201	133	18.9	64709	64710	121	1.0	66602	66609	127	7.8	69363	69368	125	5.2
61238	61240	122	2.3	64716	64726	132	10.2	66612	66618	131	5.4	69426	69531	219	104.6
61243	61296	223	52.7	64749	64782	185	33.1	66618	66620	122	1.5	69577	69659	169	82.9

Table A.14: Defective Segments from LA5S2PM88.6 (3 of 3)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
69665	69671	128	6.5	73807	73858	166	51.2	75948	75955	127	6.8				
69700	69807	276	106.2	73874	73875	124	1.4	75967	75968	120	0.3				
69829	69855	188	26.6	73877	73934	208	57.7	75969	75993	155	23.3				
69857	69859	122	1.6	73938	73944	130	6.1	75993	75993	120	0.1				
69911	70020	192	108.7	73944	73945	122	1.5	76031	76088	158	56.5				
70022	70062	177	39.9	73946	74010	182	63.9	76093	76094	121	1.1				
70064	70064	120	0.4	74013	74014	121	0.7	76099	76104	132	5.3				
70071	70073	122	2.0	74017	74019	124	1.9	76114	76116	123	2.0				
70076	70077	121	0.7	74025	74028	129	3.4	76117	76348	278	230.7				
70173	70248	182	75.4	74046	74053	130	6.8	76354	76380	181	26.2				
70258	70263	131	5.0	74057	74070	134	12.8	76395	76460	210	64.9				
70267	70292	146	25.5	74080	74083	123	3.4	76463	76470	132	7.5				
70301	70352	186	51.0	74085	74109	142	24.0	76478	76532	163	54.1				
70354	70644	272	290.0	74140	74151	137	10.4	76537	76580	210	42.6				
70647	70682	156	34.9	74151	74155	127	3.9	76674	76677	123	2.9				
70712	70718	125	5.6	74157	74229	171	71.9	76686	76698	141	12.2				
70752	70796	175	44.5	74230	74230	120	0.2	76738	76742	123	4.1				
70796	70810	143	13.5	74249	74274	154	24.9	76747	76808	236	60.9				
70832	70892	174	59.8	74276	74310	145	34.7	76816	76849	205	33.1				
70900	70907	129	7.2	74312	74339	154	26.5	76858	76886	171	27.2				
70910	71002	274	92.6	74361	74455	291	93.6	76891	76894	126	2.9				
71016	71033	156	16.9	74485	74551	180	66.0	76900	76910	128	9.9				
71049	71094	193	45.1	74552	74554	123	1.8	76915	76924	133	9.8				
71133	71723	420	589.9	74556	74558	130	2.5	76936	76984	197	47.6				
71725	71730	131	5.0	74567	74568	122	1.1	77041	77133	309	91.8				
71763	71796	208	33.8	74572	74574	124	2.5	77168	77178	143	10.8				
71808	71944	247	136.4	74578	74580	126	2.3	77180	77209	213	28.8				
71945	71953	138	7.5	74596	74597	120	0.8	77233	77386	232	153.1				
71955	71984	165	29.4	74598	74662	197	63.9	77398	77399	121	1.3				
72017	72170	390	153.1	74675	74677	125	2.1	77400	77407	141	7.1				
72176	72290	287	114.3	74707	74826	237	119.2	77483	77492	134	8.9				
72295	72321	162	25.5	74826	74829	128	2.2	77516	77623	287	107.7				
72337	72389	235	52.1	74833	74858	149	24.4	77631	77633	125	2.1				
72392	72425	185	32.9	74862	74978	175	115.8	77637	78005	348	368.3				
72460	72464	124	3.9	74983	74987	127	4.1	78009	78009	120	0.4				
72465	72470	126	4.6	75045	75051	125	5.7	78012	78052	206	39.9				
72579	72580	122	1.6	75052	75053	121	1.0	78053	78055	124	1.7				
72582	72588	124	5.1	75099	75116	148	17.5	78056	78057	122	1.1				
72589	72618	144	28.5	75117	75120	123	2.1	78059	78101	191	42.0				
72625	72640	138	14.4	75127	75131	132	4.2	78102	78192	256	89.7				
72645	72652	138	6.3	75139	75185	195	46.3	78194	78202	137	8.3				
72652	72653	120	0.6	75225	75263	194	37.5	78216	78287	186	70.8				
72676	72861	217	184.5	75268	75275	134	7.2	78289	78592	284	303.0				
72863	72890	155	26.8	75292	75292	121	0.7	78640	78684	273	44.0				
72936	72960	139	23.8	75338	75400	197	61.8	78702	78736	204	34.5				
73011	73039	148	28.2	75432	75439	132	6.5	78737	78823	201	86.4				
73044	73067	150	22.9	75441	75444	126	3.1	78850	78852	122	1.8				
73118	73153	189	34.6	75445	75531	175	86.2	78853	79114	412	260.6				
73158	73161	127	3.3	75557	75560	125	3.0								
73163	73164	124	1.2	75563	75571	135	8.0								
73165	73217	191	51.8	75575	75578	123	2.2								
73221	73224	124	3.4	75578	75582	130	3.5								
73227	73231	138	4.8	75586	75595	137	9.4								
73232	73370	242	137.8	75596	75597	120	0.1								
73382	73382	121	0.6	75624	75654	191	30.0								
73383	73408	153	25.7	75662	75779	209	116.4								
73424	73473	209	49.0	75790	75794	131	4.4								
73474	73667	299	193.2	75798	75835	168	37.4								
73690	73716	150	25.5	75858	75873	140	14.9								
73726	73731	123	4.1	75874	75882	137	7.9								
73735	73761	140	25.8	75891	75903	149	11.4								

Los Angeles 5 Northbound Lane 2 PM C43.9

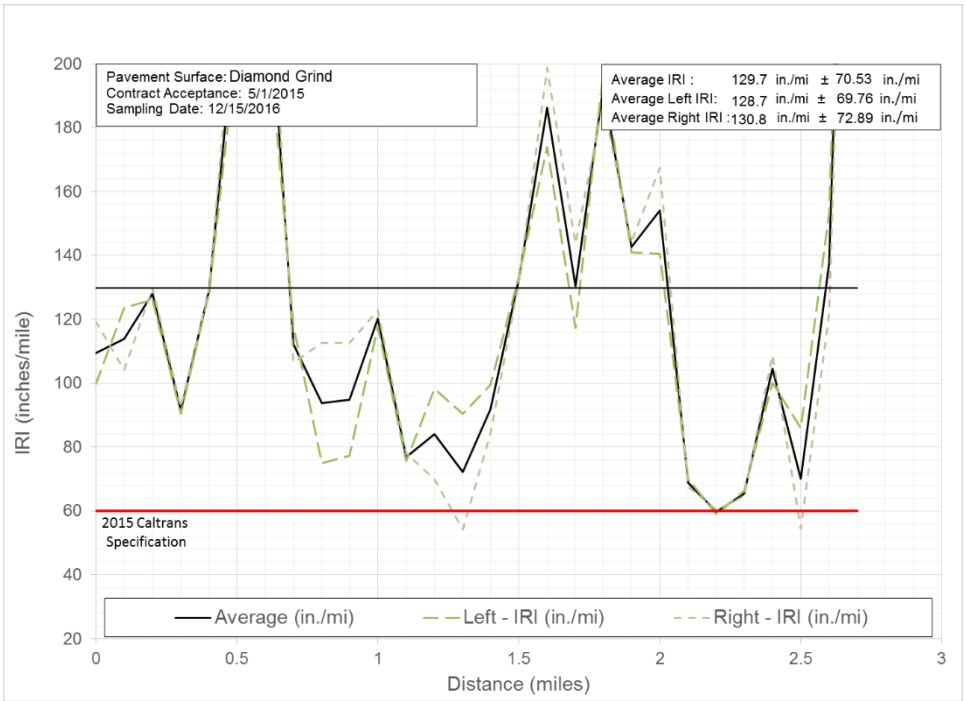

Figure A.15: LA5N2PMC43.9

Table A.15: Defective Segments from LA5N2PMC43.9

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	36	282	23.0	4187	4198	138	10.7	9029	9242	267	213.4				
42	91	327	48.7	4208	4212	129	4.3	9278	9341	204	62.8				
95	150	205	54.6	4247	4278	185	31.1	9365	9372	130	7.4				
290	302	129	12.5	4300	4314	136	14.1	9373	9377	126	3.7				
343	367	163	24.5	4315	4347	181	31.5	9380	9384	131	4.6				
468	499	186	31.3	4367	4394	205	26.7	9596	9732	384	136.0				
717	742	187	24.6	4442	4444	124	2.1	9733	9748	161	15.1				
794	840	146	46.2	4457	4464	134	7.0	9754	9761	138	6.5				
852	865	130	13.3	4507	4513	139	6.0	9762	9989	369	227.1				
875	901	171	26.1	4533	4536	121	3.4	10073	10099	168	25.4				
937	971	302	33.4	4538	4548	127	10.0	10161	10183	143	21.9				
972	980	131	8.6	4552	4554	122	1.7	10197	10200	125	3.8				
1034	1086	257	52.6	4588	4594	126	5.9	10207	10217	132	10.1				
1176	1184	142	7.6	4596	4622	142	25.6	10305	10351	382	46.2				
1231	1278	165	47.2	4638	4643	126	4.8	10364	10418	241	53.7				
1294	1295	120	1.0	4644	4653	132	8.9	10420	10824	633	403.4				
1297	1298	120	0.8	4658	4659	123	1.3	10891	10896	132	5.4				
1302	1315	134	13.1	4724	4750	156	25.3	10912	10917	125	4.3				
1366	1385	150	18.4	4823	4826	123	2.7	10919	10936	171	17.1				
1387	1441	285	54.2	4827	4830	122	2.5	10980	10985	127	5.2				
1442	1451	133	9.4	4830	4833	124	2.5	11037	11042	126	4.8				
1459	1461	122	2.1	4991	5029	149	37.5	11057	11062	132	5.2				
1466	1466	120	0.6	5053	5080	189	26.9	11266	11269	122	2.1				
1504	1536	309	32.0	5093	5119	160	25.3	11353	11377	167	24.8				
1562	1587	167	24.9	5139	5217	308	78.8	11674	11696	149	21.9				
1634	1664	181	29.4	5235	5249	148	13.8	11981	11992	129	11.1				
1667	1690	142	22.1	5277	5282	134	5.3	12334	12337	123	2.9				
1735	1741	129	6.5	5350	5375	156	25.1	12338	12352	132	13.5				
1780	1826	223	45.8	5410	5451	193	40.8	12716	12740	160	24.7				
1918	1928	129	10.0	5453	5578	215	124.5	12964	12986	136	22.3				
2105	2145	162	40.0	5604	5610	136	6.2	13031	13044	133	13.0				
2146	2163	133	16.6	5659	5665	128	6.0	13073	13164	388	91.0				
2164	2177	140	12.9	5669	5726	173	57.2	13971	14075	316	104.2				
2217	2232	142	15.3	5750	5751	122	1.7	14101	14112	139	10.9				
2292	2294	122	2.4	5753	5764	130	11.5	14113	14258	260	145.5				
2324	2326	123	2.5	5908	5909	122	1.1	14259	14557	1237	297.3				
2378	2387	149	8.7	5918	5932	147	13.6	14559	14604	304	44.8				
2413	2457	326	44.0	5961	5966	129	5.1								
2473	2507	152	34.1	5969	5978	126	8.8								
2518	2523	136	4.3	6656	6660	130	4.1								
2528	2576	258	48.0	6785	6786	121	1.3								
2582	2610	232	28.6	6795	6795	121	0.9								
2651	2678	161	27.9	6814	6818	126	3.9								
2719	2755	169	36.0	7531	7561	237	29.8								
2760	2788	177	28.5	7563	7564	120	0.7								
2863	2891	185	27.9	7655	7661	139	6.2								
2916	2952	195	36.3	7852	7857	123	4.7								
2961	3036	465	75.4	7857	7859	121	1.8								
3036	3354	771	317.3	7860	7873	140	12.3								
3361	3367	136	6.4	7879	7889	143	9.8								
3370	3397	169	28.0	8102	8123	156	20.3								
3401	3402	120	0.6	8151	8285	290	134.2								
3410	3476	301	66.0	8287	8287	121	0.7								
3499	3518	157	19.3	8346	8377	181	30.2								
3551	3659	260	107.6	8383	8390	131	6.2								
3670	3768	233	98.5	8403	8409	138	6.0								
3960	3967	126	7.5	8409	8409	120	0.4								
3970	3975	127	4.9	8426	8762	518	336.6								
4008	4053	182	45.2	8763	8821	174	57.8								
4080	4104	149	24.0	8848	8904	180	56.0								
4114	4123	127	8.4	8913	8922	131	9.6								
4128	4133	131	4.8	8925	9012	237	87.0								

Los Angeles 60 Southbound Lane 2 PM C46.4

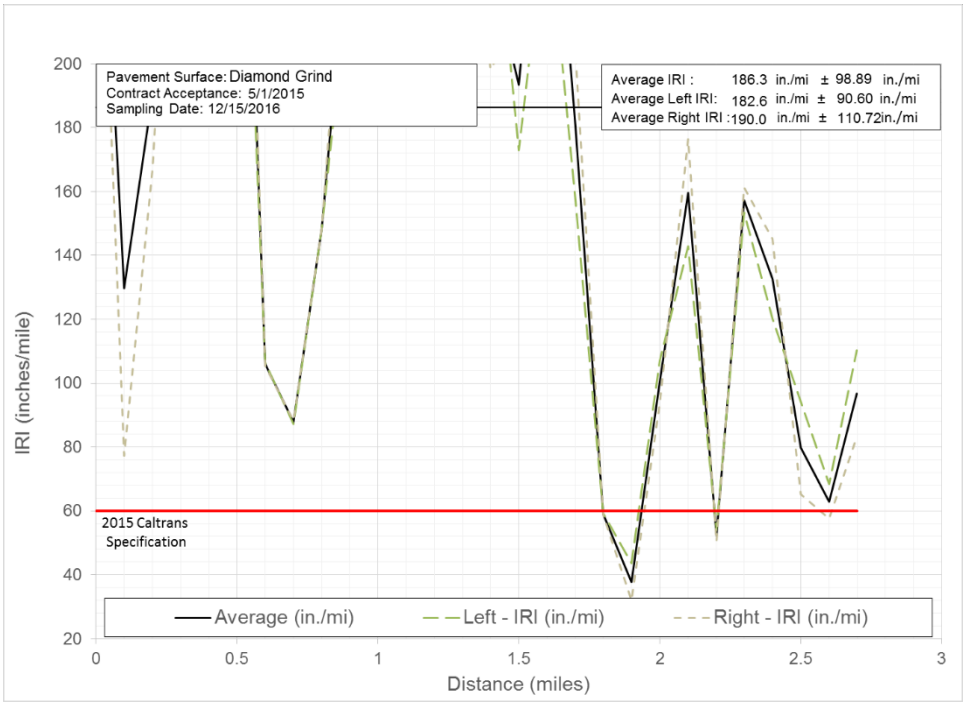

Figure A.16: LA5S2PMC46.4

Table A.16: Defective Segments from LA5S2PMC46.4

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	368	668	355.1	12270	12348	433	78.8								
376	489	310	113.3	12441	12473	176	32.8								
862	890	172	28.7	12488	12512	155	24.2								
894	898	127	4.1	12550	12550	120	0.4								
911	921	133	9.8	12556	12578	149	21.7								
965	968	122	2.8	12667	12670	123	2.3								
1198	1224	207	25.9	12674	12691	166	16.2								
1378	1517	659	138.6	12696	12708	147	12.0								
1551	2239	564	688.5	12713	12717	121	3.5								
2240	3276	835	1036.7	12742	12744	124	1.6								
3986	4025	227	39.3	12773	12809	549	36.2								
4036	4060	153	23.8	12810	12811	121	1.1								
4086	4111	160	24.4	12918	12938	151	20.0								
4170	4177	139	7.7	12984	13070	481	85.2								
4184	4188	125	3.9	13263	13288	196	25.0								
4191	4194	122	2.4	13468	13496	245	28.2								
4229	4257	173	28.6	13860	13884	168	23.9								
4263	4327	236	63.7	14057	14082	194	24.8								
4328	4363	172	34.7	14254	14278	202	24.9								
4370	4377	129	7.2												
4385	4456	414	70.9												
4457	4458	121	0.6												
4463	4507	222	44.7												
4592	4613	149	20.4												
4666	4689	158	22.9												
4705	4794	238	89.4												
4815	4816	121	0.6												
4821	4863	274	41.3												
4864	4865	122	1.5												
4869	4898	210	29.6												
4913	4914	121	0.8												
4916	4949	180	33.1												
4960	4969	133	9.1												
4979	5262	789	283.0												
5287	6110	775	823.2												
6115	6183	263	67.7												
6199	6254	204	55.4												
6274	6289	140	15.0												
6291	6357	225	66.3												
6367	7497	734	1129.8												
7515	7563	475	48.7												
7616	7734	251	117.6												
7735	7741	125	6.1												
7744	7748	130	4.8												
7766	7966	325	200.5												
7970	8548	453	577.5												
8549	8551	126	2.5												
8553	9242	687	689.8												
9248	9275	205	27.9												
9386	9409	161	23.4												
9415	9428	151	12.7												
9497	9524	159	27.0												
9920	9925	130	4.8												
10964	11251	465	287.0												
11298	11327	358	29.0												
11386	11414	280	27.3												
11511	11540	308	28.4												
11593	11619	247	25.8												
11635	11636	121	1.1												
11915	11919	125	4.7												
12150	12181	475	31.4												
12189	12243	443	53.2												

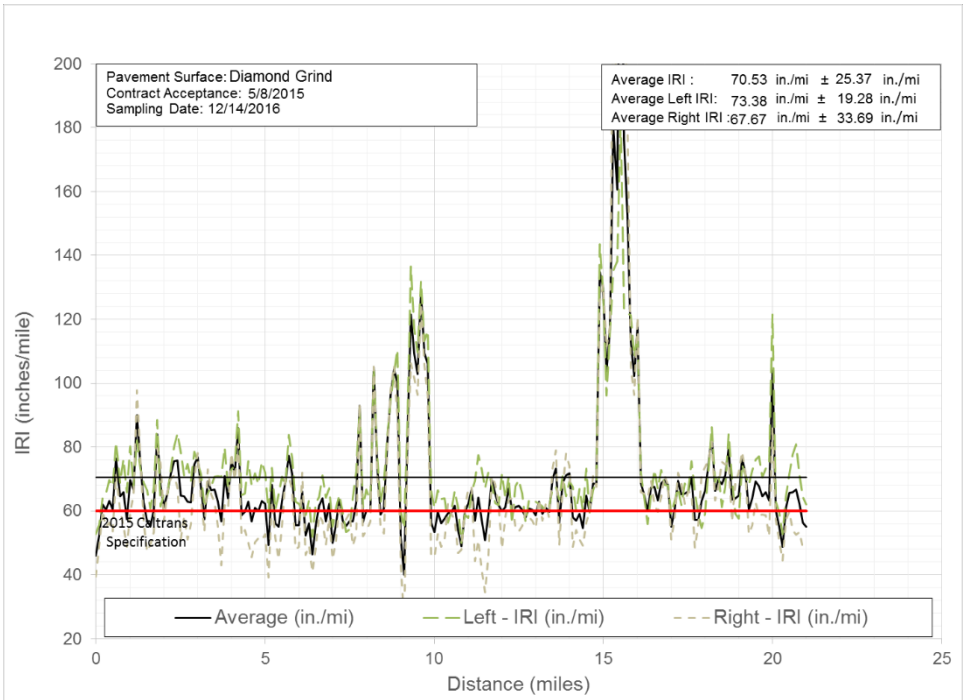

Figure A.17: Imp86S2PM43.1

Table A.17: Defective Segments from Imp86S2PM43.1

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
6550	6622	275	71.9	46690	46693	130	3.0	51723	51728	128	5.5	81059	81223	1331	164.0
6672	6703	197	31.7	46695	46698	130	3.4	51805	51829	159	24.1	81251	81258	128	7.1
6719	6731	139	12.1	46705	46706	121	0.7	51896	51937	168	40.9	81260	81411	331	150.8
6738	6742	128	4.5	46707	46708	123	2.0	51941	51943	122	1.9	81417	81457	277	40.0
6753	6758	128	5.5	46710	46715	134	5.5	51945	51949	123	4.3	81465	81475	130	10.4
7094	7109	140	14.4	46717	46754	166	37.3	52003	52005	127	2.6	81476	81481	125	5.1
7194	7220	174	25.5	46820	46829	136	8.9	52073	52154	210	80.4	81497	81517	140	20.2
9486	9493	137	6.8	46859	46874	143	14.8	59899	59924	163	25.0	81554	81631	221	77.4
9674	9697	157	23.1	46942	46954	134	11.6	69241	69263	152	22.3	81646	81648	122	1.1
9701	9750	269	49.7	46956	46963	140	7.7	71475	71477	122	2.3	81665	81669	125	4.4
9883	9898	130	14.9	47011	47016	140	5.3	71484	71490	124	5.6	81677	81717	203	39.9
10266	10266	121	0.9	47202	47228	161	25.3	77693	77720	190	26.8	81731	82204	1348	472.8
10879	10882	123	2.5	47236	47248	139	12.4	78659	78743	248	84.1	82207	82245	198	37.8
15759	15795	189	36.5	47310	47311	122	0.8	78775	78800	178	25.0	82265	82311	250	46.6
15798	15800	122	2.2	47312	47334	160	22.1	78850	78876	189	25.6	82312	82460	863	148.9
15801	15806	128	5.0	47441	47452	132	11.4	78916	78933	162	17.9	82462	82521	447	58.6
15827	15829	121	1.5	48816	48860	261	44.6	78969	78996	195	27.5	82535	82539	129	4.0
15842	15843	121	0.7	48998	49025	183	26.8	79039	79045	130	6.9	82541	82576	170	34.5
15844	15846	123	1.8	49030	49036	130	6.5	79055	79062	133	7.6	82583	82589	128	5.1
15851	15927	351	76.3	49078	49098	163	20.0	79101	79127	189	26.8	82592	82594	123	1.7
15928	15932	126	3.5	49104	49106	122	1.1	79153	79181	212	27.5	82595	82595	121	0.7
21155	21181	176	26.8	49178	49252	220	73.2	79181	79182	121	0.7	82616	82617	121	0.9
21246	21295	267	48.8	49334	49340	142	6.2	79223	79274	240	51.5	82618	82643	179	24.4
21619	21637	153	18.6	49399	49407	139	7.7	79296	79333	194	36.9	82665	82687	160	22.6
21980	21990	131	9.3	49429	49455	195	25.6	79336	79341	127	4.8	82718	82973	402	254.8
22017	22024	130	6.7	49470	49479	134	9.1	79356	79392	275	35.6	82981	82991	158	9.5
22165	22225	232	59.8	49490	49490	120	0.2	79392	79394	123	1.7	82992	82993	121	0.9
22238	22275	183	36.9	49555	49556	121	0.9	79394	79396	123	1.7	82995	83010	142	15.1
22375	22396	155	21.2	49556	49559	123	2.8	79485	79531	267	46.0	83011	83148	272	136.5
22412	22435	151	23.0	49561	49563	121	2.1	79535	79536	122	1.4	83197	83242	326	44.8
30511	30570	273	58.7	49592	49613	137	21.0	79539	79540	122	1.5	83250	83367	309	117.3
30571	30573	123	2.2	49708	49709	121	1.1	79568	79611	235	42.6	83367	83367	120	0.1
30634	30681	218	47.7	49711	49719	136	7.8	79661	79674	132	13.1	83401	83441	177	40.0
32331	32345	152	14.5	49865	49867	123	1.6	79715	79749	243	34.1	83574	83607	193	32.6
41505	41638	337	133.9	49868	49889	163	21.1	79797	79816	134	19.0	83640	83666	162	26.1
41722	41726	127	4.5	49937	49988	208	51.8	79870	79921	282	50.6	83700	83716	160	16.5
43047	43053	128	5.7	50003	50020	139	16.6	79938	79955	140	16.7	83718	83725	138	7.4
43282	43286	123	3.6	50061	50086	171	24.7	80019	80045	173	26.4	83773	83806	171	32.7
43286	43286	120	0.3	50293	50304	145	11.3	80047	80052	124	5.4	83864	83880	131	15.8
43295	43328	297	33.1	50315	50318	124	3.2	80105	80109	135	4.3	83908	83933	175	24.9
43460	43520	430	60.7	50325	50339	129	13.9	80113	80117	125	4.9	84005	84084	197	79.1
44096	44112	138	15.5	50368	50380	153	12.5	80177	80209	160	32.2	84167	84198	226	31.3
44114	44116	121	2.3	50426	50427	121	1.6	80211	80225	141	13.5	84374	84393	146	18.6
44119	44123	124	4.3	50543	50563	154	19.5	80256	80262	130	5.7	84449	84452	125	3.4
45665	45670	133	4.7	50658	50670	127	12.4	80273	80308	258	34.2	84455	84472	144	17.1
45753	45801	179	48.6	50697	50722	150	25.3	80311	80331	157	20.8	84512	84542	241	29.9
46003	46037	155	34.0	50761	50767	130	6.2	80333	80336	127	3.4	84591	84625	223	34.7
46044	46048	127	3.9	50771	50786	150	15.4	80349	80349	120	0.3	84656	84705	239	49.0
46095	46110	140	15.2	50788	50797	135	8.5	80356	80392	174	36.3	84729	84731	122	2.0
46115	46118	126	3.4	50801	50804	126	3.0	80447	80474	192	27.1	84731	84763	182	31.8
46137	46141	125	4.4	50836	50918	238	81.7	80589	80616	173	27.5	84773	84804	183	31.2
46143	46169	157	25.7	50922	50927	132	5.7	80668	80676	139	7.7	84878	84917	177	38.6
46172	46220	168	48.7	50932	50947	141	15.4	80684	80693	143	8.7	84972	85000	226	28.5
46225	46237	130	12.1	50980	51004	173	24.0	80695	80710	133	15.0	85084	85092	141	8.2
46323	46324	121	1.0	51092	51146	303	54.4	80714	80742	175	28.5	85095	85103	133	8.9
46331	46342	153	11.1	51406	51476	440	69.6	80859	80960	221	101.0	85106	85108	122	2.1
46522	46523	122	1.4	51539	51568	156	28.9	80984	80987	124	3.0	90281	90301	151	20.2
46528	46547	173	18.9	51650	51653	123	3.4	80993	80995	122	1.6	90709	90721	132	12.8
46548	46556	130	7.6	51654	51656	121	2.1	81001	81009	137	7.2	96043	96048	127	5.1
46570	46599	159	28.4	51672	51704	234	32.0	81040	81041	121	0.9	96053	96077	157	24.4
46603	46611	128	8.1	51705	51716	137	11.1	81047	81049	122	1.6	96105	96162	264	57.5

Table A.17: Defective Segments from Imp86S2PM43.1 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)		Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)		Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)		Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
98739	98762	154	22.8															
98897	98910	144	13.4															
100087	100123	172	36.1															
101063	101088	154	24.9															
105738	105754	139	16.0															
105785	105856	255	71.1															
105882	105908	215	25.9															
105942	105968	178	25.8															

Santa Barbara 101 Northbound Lane 2 PM 10.0

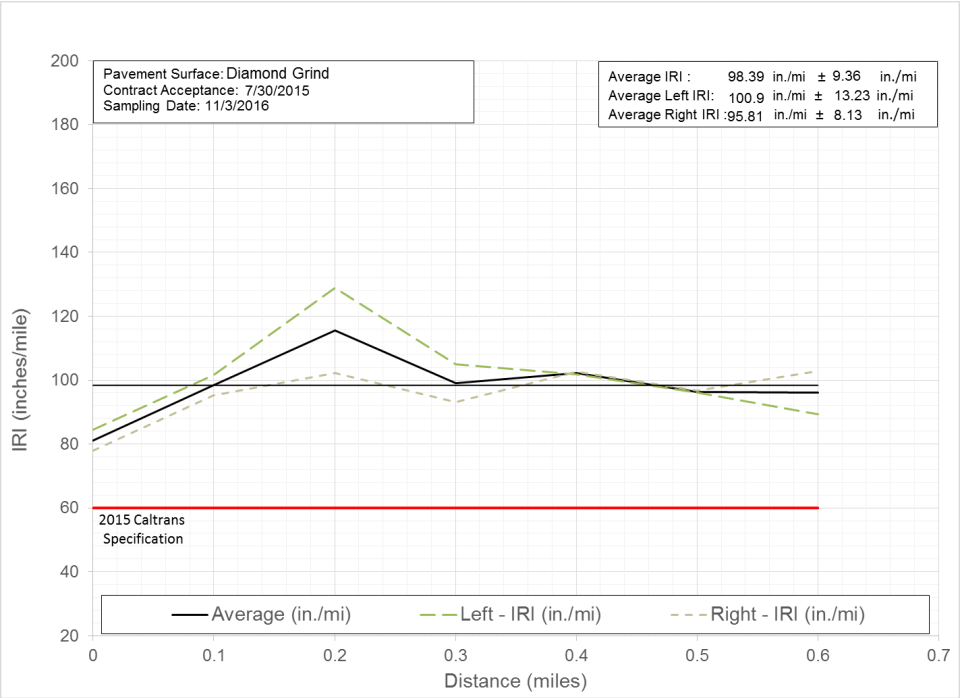

Figure A.18: SB101N2PM10.0

Table A.18: Defective Segments from SB101N2PM10.0

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
261	311	270	50.7												
492	503	160	11.2												
508	516	133	7.5												
703	711	132	8.4												
813	840	198	26.6												
913	922	137	8.6												
923	961	255	38.2												
973	977	124	4.3												
1002	1030	281	28.9												
1053	1077	180	24.3												
1126	1147	135	20.7												
1154	1181	205	26.9												
1183	1188	130	5.4												
1229	1256	230	26.3												
1340	1342	125	2.0												
1470	1476	126	5.5												
1502	1507	127	5.0												
1624	1627	123	3.0												
1687	1733	212	46.0												
1767	1788	171	20.1												
1789	1791	123	2.8												
1802	1826	175	23.8												
1858	1867	136	9.6												
1984	1988	133	4.5												
2341	2348	133	7.1												
2473	2502	273	29.3												
2525	2527	124	2.1												
2571	2572	123	1.0												
2580	2607	183	27.1												
2607	2637	265	29.5												
2729	2732	129	3.2												
2744	2751	124	6.9												
2790	2824	243	34.3												
2837	2843	130	6.4												
2849	2855	134	6.0												
2864	2893	276	28.6												
3016	3042	178	25.8												
3253	3257	122	3.8												
3258	3273	142	15.5												
3287	3292	140	5.6												

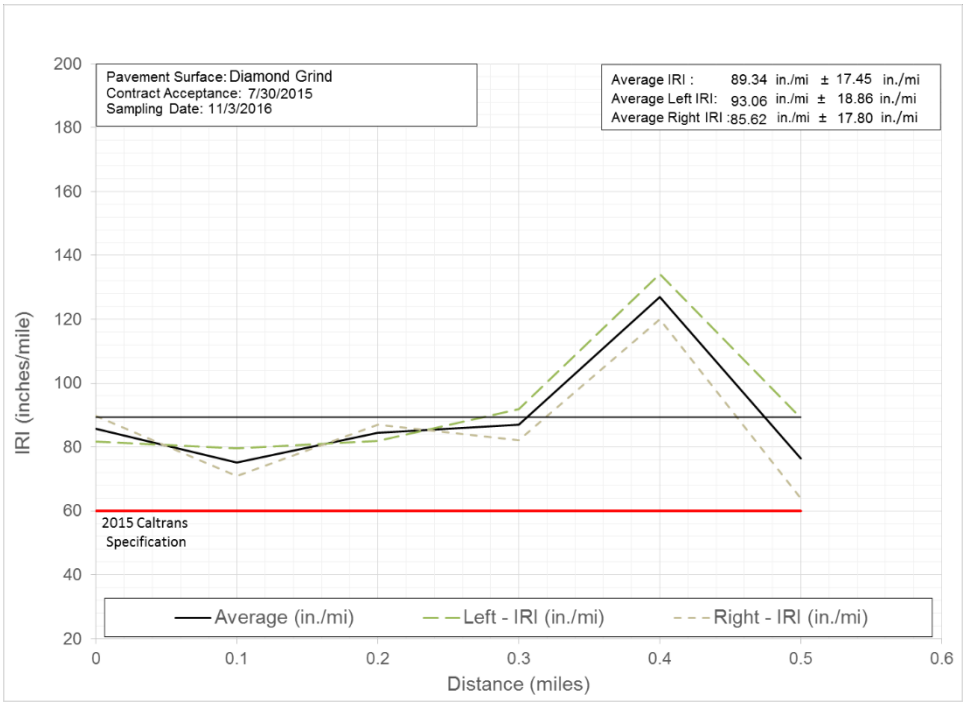

Figure A.19: SB101S2PM10.6

Table A.19: Defective Segments from SB101S2PM10.6

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	53	222	40.8												
125	126	120	0.8												
133	140	141	7.5												
434	441	137	6.4												
446	470	172	23.6												
543	544	121	0.8												
554	582	170	28.5												
584	590	125	6.5												
719	740	151	20.9												
1141	1161	145	19.9												
1184	1188	127	3.9												
1243	1291	196	48.2												
1307	1311	130	3.4												
1313	1327	143	14.0												
1590	1613	155	23.6												
1648	1656	129	7.8												
1786	1806	150	19.4												
1837	1841	136	3.8												
2022	2046	161	24.0												
2091	2093	121	2.1												
2098	2107	155	8.9												
2175	2213	147	38.1												
2248	2300	223	52.5												
2321	2350	304	29.4												
2352	2355	125	3.5												
2366	2377	145	10.9												
2454	2463	140	9.6												
2470	2498	197	28.0												
2588	2615	222	27.1												
3065	3079	126	13.4												
3080	3081	121	0.7												

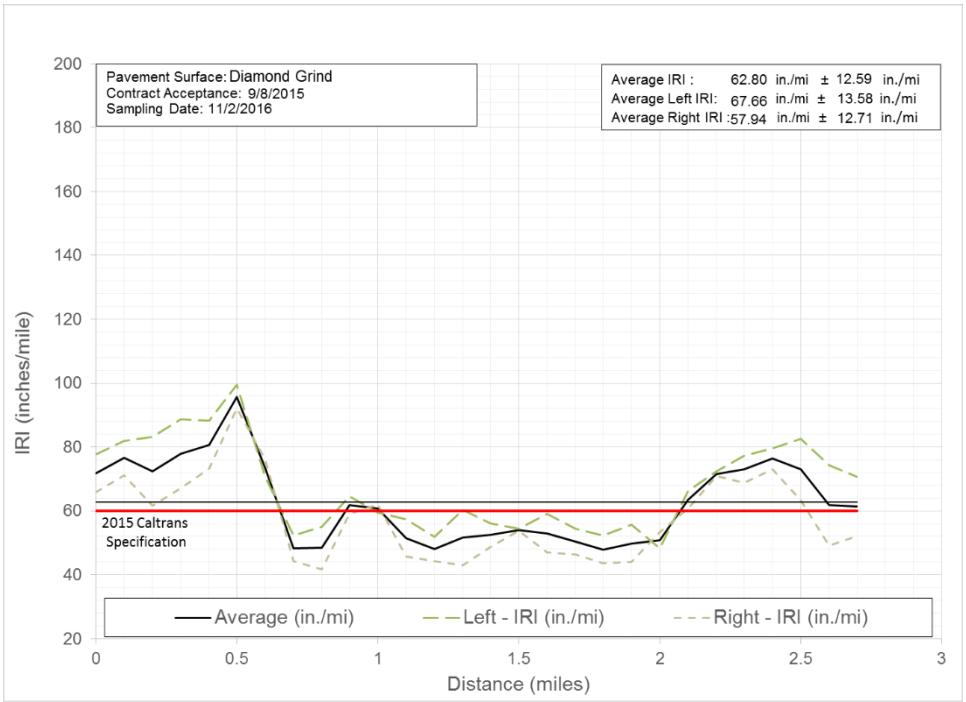

Figure A.20: Mon101N2PM52.4

Table A.20: Defective Segments from Mon101N2PM52.4

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
1152	1160	138	8.0												
2616	2620	123	3.2												
2623	2625	123	1.7												
2656	2660	122	3.9												
2661	2662	121	1.4												
2904	2908	127	3.7												
3003	3028	148	25.2												
3080	3114	173	33.7												
3114	3118	131	3.8												
3153	3179	147	26.0												
3316	3321	138	5.1												
3322	3337	146	14.9												
3374	3376	125	2.5												
3389	3398	140	9.7												
5591	5615	142	24.4												
11523	11565	169	42.3												
11587	11599	135	12.4												
11601	11610	142	9.7												
13110	13112	122	2.3												
13115	13120	127	5.6												
13122	13135	131	13.5												
13145	13150	129	5.2												
13415	13429	140	14.0												
13436	13439	123	2.2												

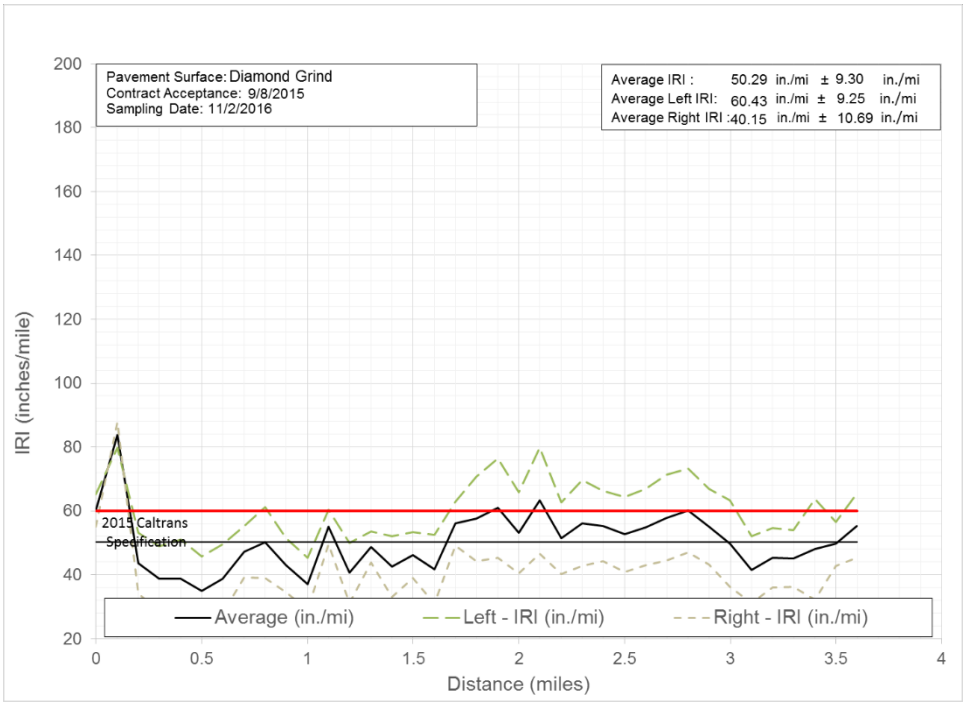

Figure A.21: Mon101S2PM55.3

Table A.21: Defective Segments from Mon101S2PM55.3

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
594	635	184	40.6												
705	733	178	28.1												
864	887	162	23.0												
6052	6057	130	4.6												
6219	6242	135	23.5												
11837	11842	130	5.3												
15211	15217	121	5.1												
15221	15224	124	2.7												

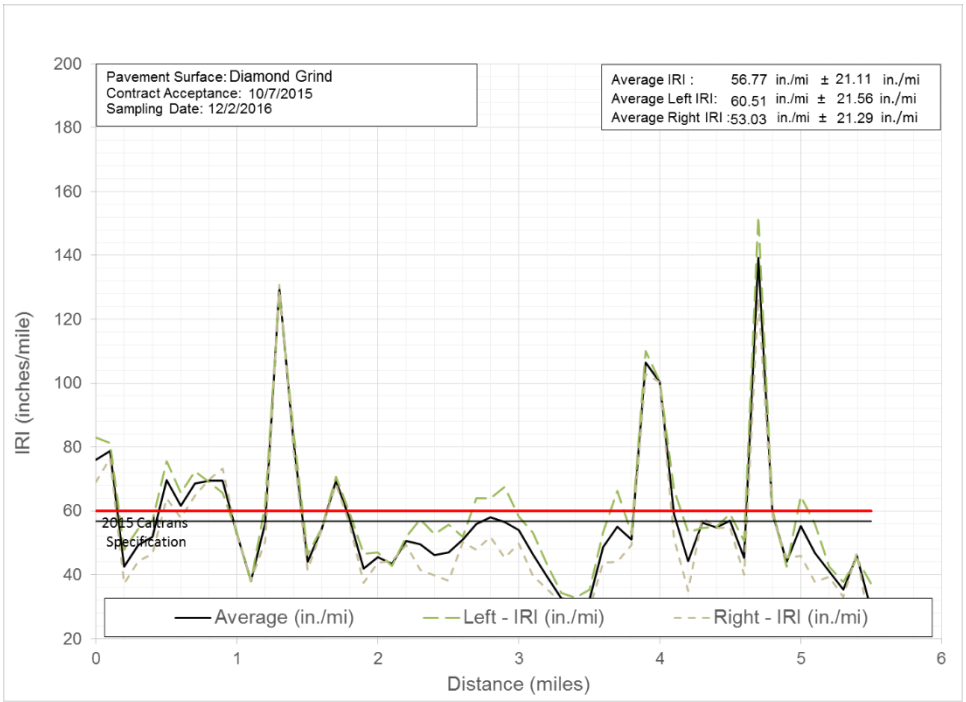

Figure A.22: But99S2PM30.2

Table A.22: Defective Segments from But99S2PM30.2

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
460	611	272	150.7												
616	617	120	0.7												
698	719	141	20.3												
2304	2309	125	5.6												
2694	2723	165	28.9												
2759	2771	138	12.2												
2797	2814	141	17.3												
4068	4070	121	1.6												
4421	4423	121	1.3												
4425	4434	146	9.4												
4441	4475	158	34.1												
4660	4666	124	6.3												
5132	5137	128	5.5												
5188	5216	213	27.8												
6488	6497	128	9.3												
6998	7026	156	27.7												
7055	7063	149	8.0												
7147	7406	272	259.6												
7429	7430	120	0.3												
7435	7469	195	34.4												
7471	7508	402	37.7												
7605	7625	151	19.7												
8107	8111	123	4.8												
8722	8731	143	9.0												
8945	8948	122	2.3												
9087	9103	142	16.6												
9651	9699	178	48.8												
12680	12699	134	18.4												
20487	20513	244	25.7												
20838	20859	136	21.6												
20955	21016	343	61.8												
21021	21096	264	74.9												
21103	21139	208	35.2												
21143	21147	124	4.0												
21388	21390	124	1.7												
21398	21404	127	6.0												
21414	21425	139	11.0												
21495	21547	188	52.1												
21551	21596	210	45.3												
21616	21630	144	13.9												
21631	21640	135	9.7												
21651	21654	124	2.6												
22697	22715	142	17.7												
25001	25006	137	5.3												
25066	25167	232	101.8												
25168	25177	135	8.8												
25181	25332	327	150.9												
25393	25420	200	26.5												
28917	28939	160	21.7												

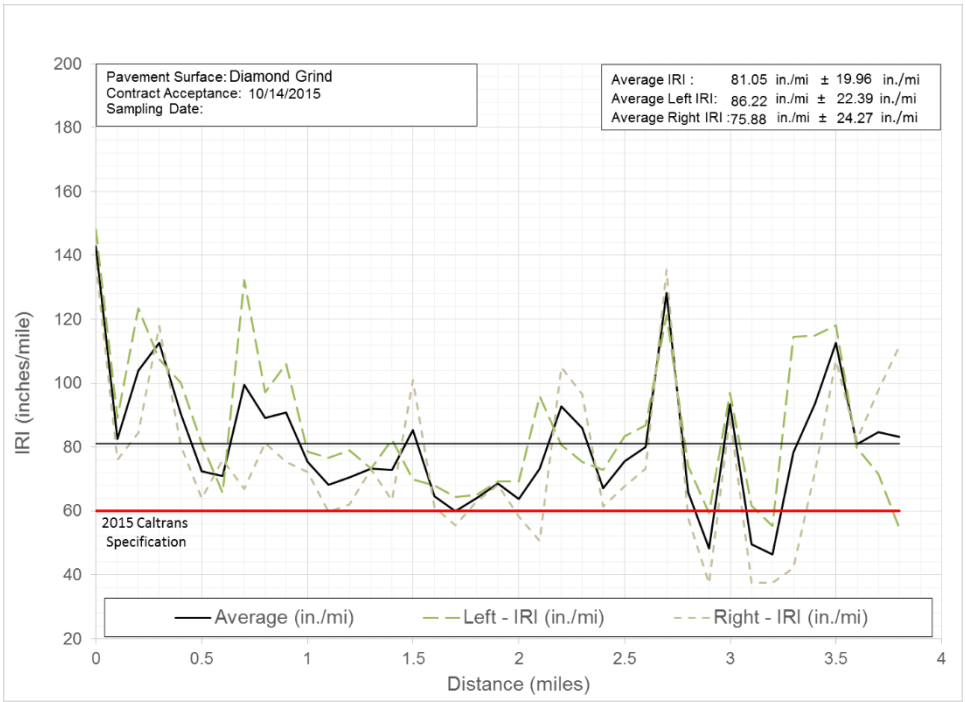

Figure A.23: SCl280N4PM7.8

Table A.23: Defective Segments from SCl280N4PM7.8

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	17	125	4.4	16095	16103	133	8.1								
65	137	314	72.6	16163	16173	130	9.8								
180	183	124	3.4	16193	16215	151	22.4								
244	315	226	71.0	16218	16250	208	32.2								
404	524	211	120.7	17975	18017	212	41.2								
605	617	131	12.5	18720	18777	387	57.3								
626	649	140	23.5	18795	18797	122	1.9								
711	714	128	3.0	18810	18886	189	75.5								
716	726	137	9.4	18912	18921	144	8.9								
1456	1459	127	3.5	18930	18939	142	9.2								
1541	1639	521	98.6	19095	19103	136	7.8								
1645	1721	227	76.1	19186	19191	129	4.8								
1746	1758	150	11.9	19271	19276	125	5.0								
1803	1809	132	5.8	19278	19284	124	5.5								
2074	2076	121	1.1	19290	19293	129	3.4								
2501	2503	128	2.7	19357	19380	142	23.1								
2506	2508	122	2.2	19388	19395	132	6.6								
2601	2611	129	10.2	19738	19763	165	25.0								
2616	2619	123	2.3	19783	19785	125	2.2								
3174	3176	122	2.1	19793	19822	197	28.4								
3181	3189	129	8.4	19832	19855	168	23.5								
3192	3195	124	3.5	19905	19917	138	12.9								
3197	3204	127	6.7	19969	19994	171	25.3								
4126	4131	131	5.1	20033	20061	158	27.8								
4251	4259	141	7.8	20092	20116	149	24.2								
4618	4663	240	45.3												
4733	4733	121	0.7												
4750	4753	126	3.1												
4893	4895	122	2.4												
4899	4900	120	1.3												
4922	4937	144	14.7												
5650	5674	159	23.9												
6871	6875	126	3.6												
6878	6896	141	18.3												
8266	8289	159	23.5												
8349	8429	510	79.6												
9718	9738	142	20.4												
10121	10122	122	1.5												
10893	10916	130	22.1												
11808	11836	171	27.9												
11930	11932	124	1.9												
11933	11972	158	39.0												
11974	12026	238	52.6												
12118	12147	208	28.8												
12379	12404	149	25.3												
12420	12439	149	19.1												
12440	12444	133	4.8												
12453	12482	213	29.0												
12489	12516	171	27.1												
12726	12752	172	26.1												
13333	13334	123	1.7												
13340	13344	121	3.4												
14052	14061	147	9.0												
14469	14471	122	2.5												
14472	14474	122	1.5												
14477	14478	122	1.0												
14478	14644	309	165.3												
14666	14668	122	1.8												
14671	14688	155	16.7												
14717	14723	129	6.2												
14731	14835	267	103.8												
16025	16083	199	57.9												

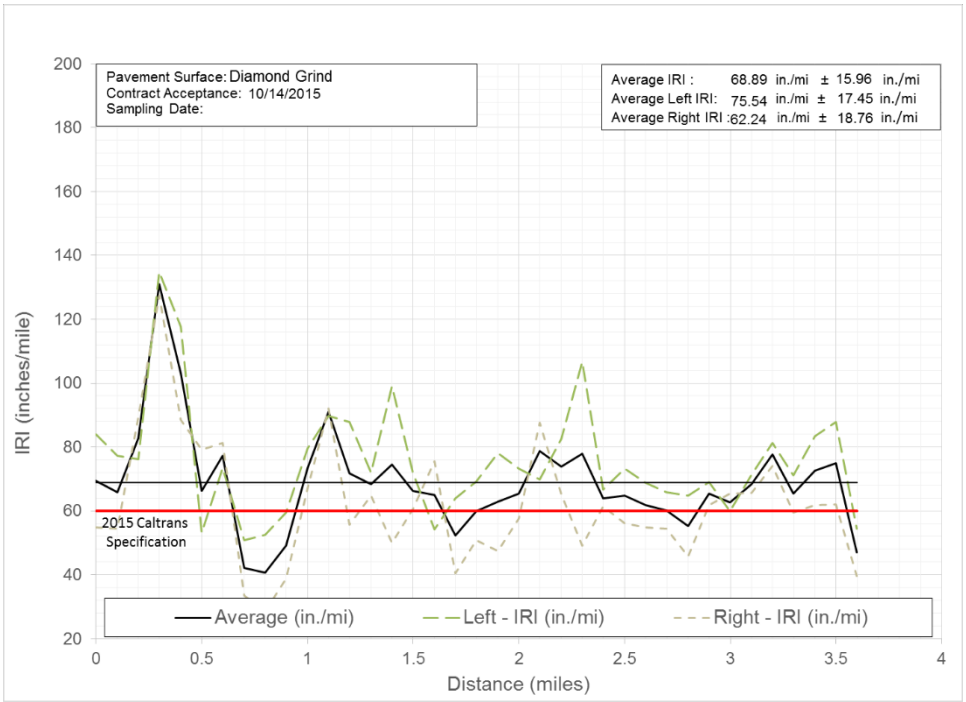

Figure A.24: SCl280S4PM11.5

Table A.24: Defective Segments from SCl280S4PM11.5

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
25	29	125	4.5												
1068	1111	247	43.4												
1177	1220	201	43.3												
1502	1504	122	2.2												
1763	1786	163	22.6												
1805	1911	431	105.5												
1930	1973	208	43.2												
2037	2059	145	21.2												
2061	2062	121	0.7												
2069	2093	151	23.9												
2267	2276	125	8.7												
2278	2288	139	9.8												
2301	2305	126	3.7												
2363	2368	128	5.0												
2558	2573	133	14.8												
2576	2582	123	5.9												
2596	2597	122	1.5												
2605	2606	121	1.1												
2624	2626	123	2.3												
2637	2639	122	1.5												
2660	2661	121	1.2												
2664	2716	242	52.0												
2733	2749	158	16.7												
2765	2793	251	27.6												
3443	3501	222	57.6												
3591	3617	178	25.8												
3622	3637	144	15.4												
5774	5795	150	21.3												
5899	5940	236	41.6												
5995	6017	146	21.4												
6182	6188	129	6.1												
8616	8632	152	16.2												
8650	8679	263	28.2												
9585	9588	122	2.3												
9590	9604	130	13.9												
11162	11163	121	1.1												
11170	11176	125	6.2												
11212	11245	170	33.1												
11249	11250	121	1.0												
11251	11256	134	5.0												
12735	12738	121	2.8												
12739	12741	122	1.7												
12746	12752	123	5.8												
12786	12809	152	22.6												
14375	14399	154	24.0												
15955	15981	206	25.2												
16894	16897	127	3.7												
16904	16917	136	13.4												
17931	17949	149	17.1												
17949	17960	127	10.8												
17963	17979	145	16.5												

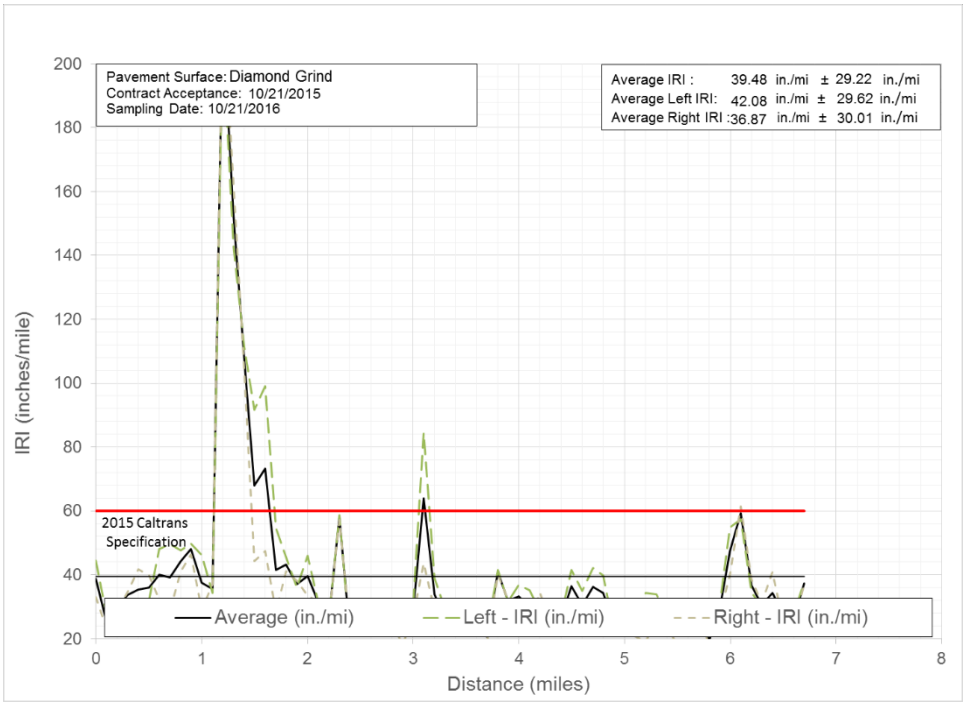

Figure A.25: Nev80E2PM21.2

Table A.25: Defective Segments from Nev80E2PM21.2

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
6377	6515	590	138.0												
6581	6968	448	387.9												
6982	7022	161	40.3												
7034	7095	261	60.6												
7096	7167	235	70.5												
7168	7173	141	5.3												
7175	7203	183	28.2												
7229	7312	446	83.3												
7412	7454	243	41.7												
7496	7574	401	78.7												
8321	8326	125	5.1												
8333	8341	129	7.8												
8905	8944	262	39.2												
12377	12404	194	26.7												
12561	12578	135	16.4												
16722	16737	139	14.8												
32060	32083	163	22.6												
32380	32388	128	8.0												
32454	32478	185	24.8												
32483	32514	239	31.4												
32518	32519	121	1.4												
32523	32538	155	14.6												
35811	35833	161	22.5												

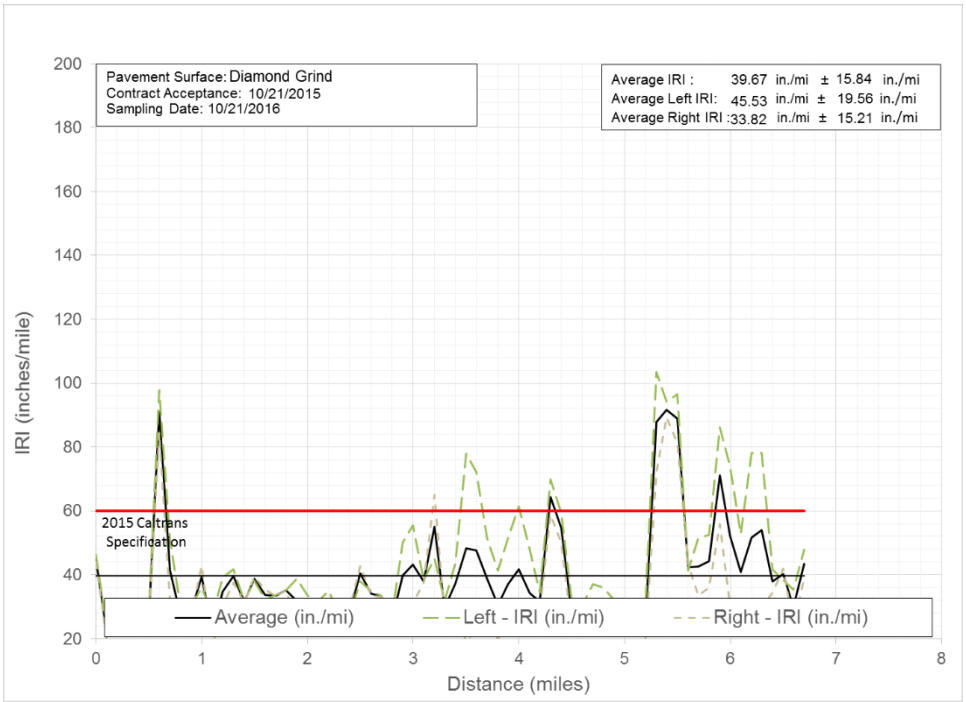

Figure A.26: Nev80W2PM28.1

Table A.26: Defective Segments from Nev80W2PM28.1

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
20	53	190	33.0												
57	71	139	14.4												
3223	3280	301	57.3												
3355	3356	121	1.0												
3368	3376	133	8.0												
3643	3668	174	24.4												
3693	3716	152	23.0												
16991	17017	180	25.9												
17159	17209	315	49.3												
19570	19591	144	21.1												
23112	23171	286	58.3												
23205	23211	139	6.5												
23230	23291	282	60.4												
23291	23291	120	0.1												
28294	28369	311	74.6												
28369	28380	134	11.0												
28942	29015	368	72.6												
29298	29315	162	17.3												
29337	29413	214	76.7												
29472	29495	165	23.0												
31503	31506	124	3.4												
31568	31598	318	29.9												
35636	35654	139	18.3												

Orange 73 Northbound Lane 3 PM 25.7

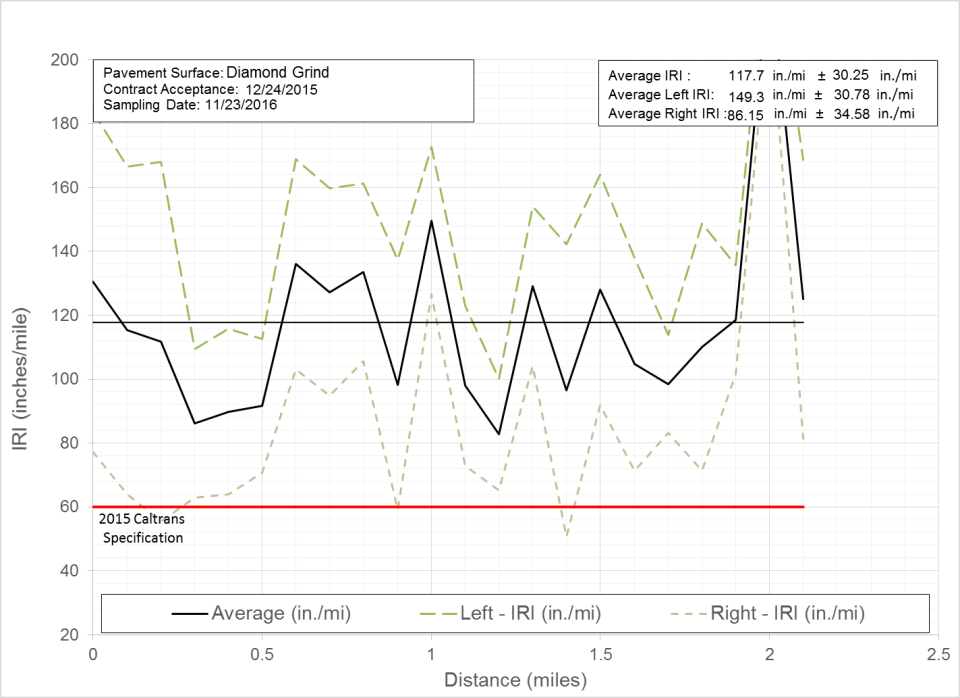

Figure A.27: Ora73N3PM25.7

Table A.27: Defective Segments from Ora73N3PM25.7

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	20	168	7.0												
27	29	121	2.2												
33	34	122	1.5												
38	64	172	26.4												
1837	1839	123	2.0												
3130	3203	245	73.1												
3339	3342	125	3.0												
3345	3364	180	19.0												
3365	3370	132	5.3												
3579	3695	409	115.5												
4040	4040	120	0.2												
4042	4046	129	4.1												
4051	4141	289	89.6												
4225	4250	148	24.5												
4323	4419	469	95.5												
4485	4509	161	24.4												
4527	4531	122	3.8												
5052	5077	144	24.8												
5252	5283	157	30.6												
5285	5291	134	5.9												
5355	5411	225	55.8												
5449	5537	349	88.5												
5713	5719	140	5.5												
5729	5740	134	11.1												
5792	5797	123	4.7												
5800	5815	132	14.7												
5816	5838	148	21.6												
5919	5938	169	18.9												
5964	5965	122	1.5												
6508	6530	154	22.1												
7082	7186	271	103.5												
7278	7303	141	25.3												
7308	7344	187	36.0												
7361	7363	123	2.3												
7367	7374	126	6.5												
7890	7913	147	22.5												
7936	7981	245	45.1												
7994	8029	197	35.3												
8067	8118	209	51.3												
8292	8309	141	16.5												
8622	8653	160	31.4												
8665	8669	123	3.9												
9023	9065	212	42.1												
9386	9386	120	0.4												
9386	9402	143	15.6												
9403	9413	136	9.4												
9980	9988	131	8.0												
10044	10046	122	2.1												
10407	10434	196	26.5												
10452	10513	300	61.3												
10514	10955	590	441.4												
10960	10961	121	1.3												
10982	11038	184	55.5												
11052	11054	121	1.9												
11289	11304	140	15.6												
11333	11365	138	32.1												

Orange 73 Southbound Lane 3 PM 28.0

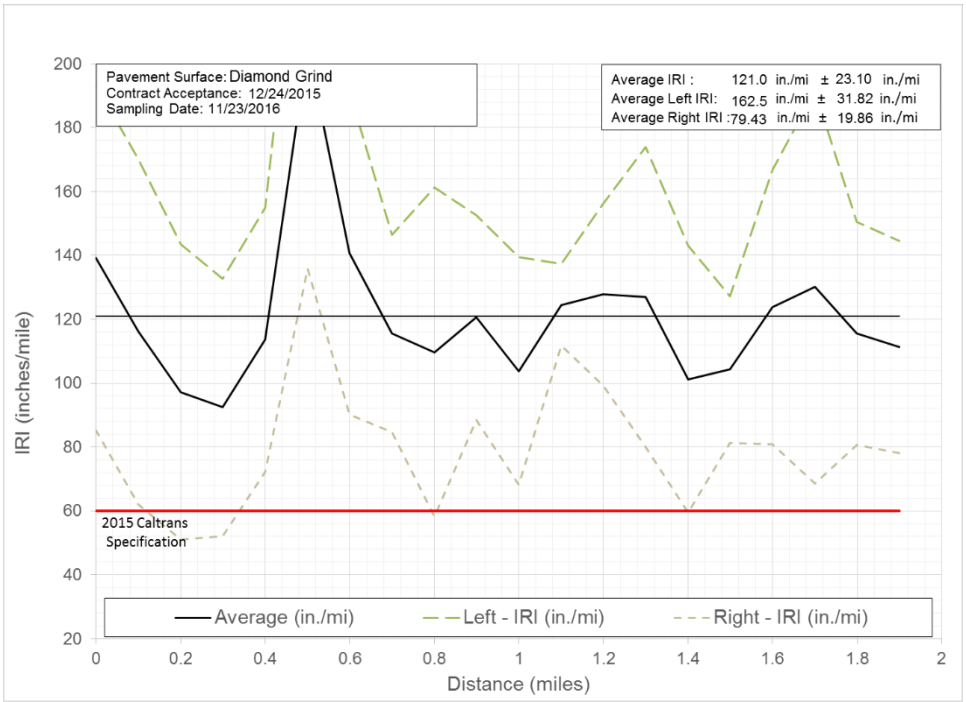

Figure A.28: Ora73S3PM28.0

Table A.28: Defective Segments from Ora73S3PM28.0

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	32	304	19.4												
33	35	122	1.6												
53	61	132	7.2												
63	66	121	2.7												
67	67	120	0.2												
144	163	133	18.3												
292	343	173	50.9												
584	606	169	22.5												
2506	2508	121	2.0												
2586	2694	281	108.6												
3073	3172	701	99.3												
3182	3183	120	0.5												
3183	3189	135	5.6												
3192	3195	125	3.9												
3298	3351	239	53.0												
3664	3666	120	1.4												
3667	3668	121	0.7												
3678	3749	198	71.4												
3755	3766	137	10.8												
4766	4788	144	21.2												
4789	4790	120	1.1												
4969	4973	132	4.8												
5073	5124	166	50.9												
5179	5179	121	0.4												
5182	5197	129	15.2												
5269	5329	161	59.7												
6130	6132	125	2.3												
6134	6206	727	72.0												
6302	6328	166	26.1												
6410	6491	493	81.9												
6504	6505	121	1.1												
6576	6584	130	7.7												
7010	7063	169	52.6												
7066	7079	127	13.3												
7251	7282	155	30.9												
7292	7310	138	18.0												
8003	8025	148	21.1												
8403	8413	149	10.6												
8415	8425	138	9.9												
8490	8508	163	18.0												
8513	8519	133	6.2												
9032	9036	130	4.0												
9818	9819	121	1.0												
9820	9842	147	22.2												

Continuously Reinforced Concrete Pavement Sections

Kern 99 Northbound Lane 3 PM R28.4

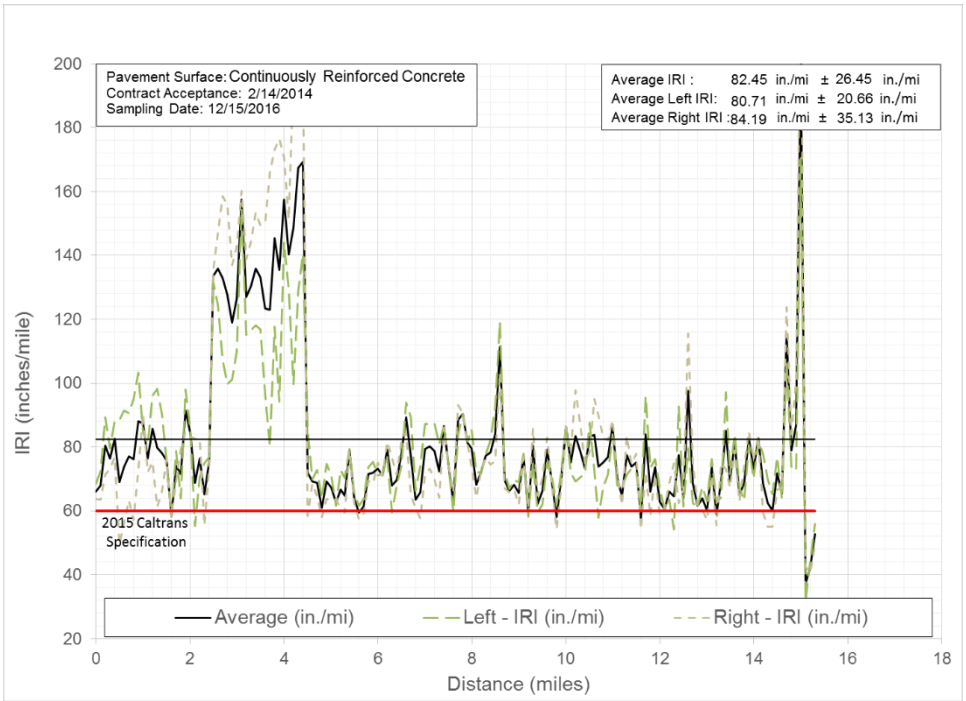

Figure A.29: Ker99N3PMR28.4

Table A.29: Defective Segments from Ker99N3PMR28.4

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
327	330	125	3.3	14855	14864	132	8.3	17352	17358	133	6.6	21671	21682	136	11.0
764	774	133	10.4	14870	14976	236	106.3	17382	17383	121	0.8	21698	21699	125	1.6
862	873	135	10.9	14977	14982	126	4.6	17384	17387	123	3.5	21702	21849	268	147.2
1372	1378	125	5.1	14994	15002	126	7.5	17393	17406	164	13.0	21893	21923	197	29.6
2177	2209	173	31.4	15009	15019	141	10.3	17411	17443	168	31.8	21960	21972	140	11.7
2229	2246	148	17.7	15024	15191	222	167.1	17444	17448	132	4.3	21973	21979	125	5.3
2301	2324	161	23.3	15194	15200	133	6.3	17452	17549	241	97.0	21980	21980	120	0.1
3842	3853	129	11.4	15204	15209	127	4.8	17558	17632	229	74.5	22042	22084	192	42.0
5277	5302	183	25.2	15211	15212	121	1.2	17636	17695	194	59.0	22086	22404	298	318.0
5390	5438	216	48.6	15213	15229	134	16.4	17717	17722	131	4.4	22406	22601	644	194.3
5478	5483	126	4.8	15234	15277	170	43.8	17724	17738	138	14.1	22601	22601	120	0.3
5487	5492	133	4.8	15294	15294	120	0.5	17739	17743	128	3.8	22619	23217	472	597.4
5495	5495	120	0.4	15296	15298	127	2.7	17745	17781	176	35.9	23220	23221	121	1.4
5845	5874	182	29.0	15302	15332	156	30.4	17801	17802	122	1.2	23223	23608	656	385.9
6820	6821	121	1.2	15334	15352	142	17.6	17828	17882	186	53.5	23614	23617	125	3.0
8322	8380	195	57.7	15353	15361	133	7.5	17898	17901	125	3.8	24392	24395	126	3.3
8380	8380	120	0.1	15368	15403	158	35.1	17903	17916	140	12.1	24597	24609	130	12.2
8422	8425	126	2.5	15461	15493	156	32.5	17956	18050	206	93.7	25311	25312	121	1.1
9483	9526	204	42.5	15505	15509	129	3.6	18063	18068	127	4.6	25314	25324	138	9.8
9664	9690	173	25.5	15510	15554	147	44.0	18080	18087	139	6.9	27036	27040	124	3.9
9692	9698	131	5.9	15563	15566	124	2.2	18090	18121	177	31.3	27043	27051	124	7.5
9795	9810	127	15.0	15568	15573	126	4.6	18127	18146	133	18.7	28554	28560	127	6.1
9813	9818	127	4.6	15576	15587	145	10.9	18150	18153	123	2.7	28785	28791	130	5.8
10288	10289	120	0.7	15590	15591	121	0.9	18170	18305	213	135.2	28792	28792	120	0.4
10453	10458	123	4.4	15593	15636	185	43.0	18308	18491	315	182.3	28803	28806	125	2.5
10464	10465	121	1.6	15637	15697	179	60.4	18492	18494	124	1.7	28884	28885	122	1.3
10467	10501	314	33.2	15701	15726	154	25.5	18521	18522	121	0.6	28897	28897	120	0.5
10605	10627	166	22.0	15733	15740	127	6.7	18530	18690	247	160.4	28898	28906	129	7.6
10858	10878	164	19.9	15747	15759	155	12.3	18691	18692	121	1.1	30170	30172	123	1.6
10902	10904	121	1.5	15760	15856	195	96.0	18693	18694	121	1.3	30174	30181	131	7.5
10986	10990	132	4.4	15856	15932	203	75.1	18713	18783	190	69.5	30362	30375	138	13.0
11305	11309	128	4.1	15934	15936	126	2.5	18827	18983	184	156.0	32887	32908	154	20.7
11493	11508	144	14.8	15946	15960	135	13.3	18989	18990	121	1.0	33025	33025	121	0.8
11508	11509	121	0.7	16000	16012	136	11.7	18991	18992	120	0.6	33221	33222	121	1.0
11525	11528	126	3.0	16016	16101	213	84.6	19016	19025	136	8.3	33302	33307	124	5.0
11769	11771	123	2.2	16132	16132	120	0.2	19027	19056	156	29.1	33620	33627	132	6.6
11772	11773	120	1.6	16144	16157	146	12.5	19060	19068	135	8.5	34677	34691	129	14.4
11786	11787	122	1.2	16157	16170	128	12.3	19069	19076	131	7.1	34778	34787	134	9.4
11862	11881	138	18.9	16200	16329	225	129.4	19078	19084	126	6.6	34789	34808	158	18.2
11893	11926	177	32.6	16366	16369	132	3.0	19110	19233	216	122.1	34809	34815	129	5.4
11957	11985	203	27.8	16372	16376	122	3.8	19275	19277	122	1.3	34934	34955	155	21.4
12717	12727	139	9.9	16382	16420	160	37.7	19281	19471	243	189.5	34967	34968	121	0.8
13309	13310	121	1.1	16423	16481	163	57.9	19480	19579	197	98.9	34972	35014	188	42.5
13316	13322	126	6.7	16483	16483	121	0.5	19586	19623	202	37.0	35252	35260	128	8.7
13482	13486	124	3.8	16489	16523	175	34.1	19637	19639	123	1.6	35288	35294	127	5.5
13567	13569	125	2.0	16530	16539	129	9.6	19640	19698	183	58.6	36407	36414	133	7.1
13595	13703	805	107.5	16540	16543	128	3.4	19700	19701	121	0.6	36421	36425	125	3.9
13800	13827	177	27.3	16547	16553	130	5.4	19720	20089	247	369.4	37115	37116	121	1.3
13847	13848	122	1.2	16565	16566	120	0.5	20109	20292	300	183.6	37546	37548	122	1.7
13851	13918	178	66.6	16568	16831	393	262.5	20299	20422	272	122.5	37607	37618	139	10.7
13920	14071	248	151.7	16837	16838	122	1.4	20449	20451	124	1.8	37623	37626	132	3.2
14081	14147	180	65.5	16841	16842	120	0.3	20460	20462	123	2.5	37645	37648	127	2.3
14147	14156	133	8.5	16843	16866	155	23.0	20504	21041	266	537.4	37651	37655	124	3.9
14197	14281	228	83.8	16867	16868	123	1.5	21046	21047	123	1.3	37813	37815	121	1.4
14301	14481	206	180.4	16888	16892	124	3.5	21050	21051	122	1.1	37817	37821	128	4.3
14487	14491	129	3.5	16923	16926	129	3.1	21061	21089	145	27.3	38134	38162	285	28.2
14499	14524	152	25.5	16938	16939	121	0.6	21103	21275	221	172.4	39313	39320	130	6.7
14527	14528	121	1.0	16985	16995	135	9.2	21277	21326	265	49.7	39445	39462	152	17.7
14534	14548	135	14.1	17039	17042	124	2.6	21334	21459	250	124.6	39464	39467	123	2.9
14571	14712	259	140.8	17060	17073	132	12.5	21461	21595	269	133.8	39570	39595	164	24.5
14713	14834	269	120.9	17077	17203	195	126.1	21603	21605	127	2.2	39710	39723	139	12.8
14837	14852	138	15.1	17206	17348	232	142.1	21631	21671	219	40.2	39724	39739	156	14.9

Table A.29: Defective Segments from Ker99N3PMR28.4 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
39741	39751	138	9.9	50371	50379	129	7.4	56399	56421	159	22.5	66761	66918	281	156.8
40086	40094	128	8.1	50705	50707	125	2.0	56422	56423	121	0.9	67215	67248	161	32.9
40671	40689	155	17.8	50709	50711	123	2.1	56429	56486	211	57.0	67320	67325	127	4.7
40768	40823	273	54.5	50728	50735	134	6.8	56487	56489	123	2.1	67360	67384	161	24.0
40825	40829	133	4.6	50742	50755	153	12.9	56493	56546	177	53.7	67850	67859	134	9.1
40830	40852	152	21.5	50759	50773	141	14.0	56552	56554	122	1.5	67860	67863	123	2.1
40853	40870	147	16.7	50776	50777	121	1.1	56592	56593	121	1.1	68051	68056	135	4.9
40871	40884	147	12.6	50778	50786	129	8.0	56605	56611	137	5.9	68349	68360	137	10.8
40968	40970	122	1.8	50998	51000	121	2.5	56619	56630	153	11.2	70097	70109	129	11.2
41203	41206	122	2.4	51002	51006	123	3.4	56698	56699	121	0.7	70109	70113	122	4.0
41315	41351	215	36.3	52770	52791	137	20.8	56700	56722	146	21.6	70211	70238	194	27.1
41431	41436	127	4.3	52891	52892	121	1.0	56743	56763	141	19.9	70248	70259	128	10.7
41602	41605	126	3.9	52900	52903	126	3.1	56797	56809	144	11.4	70286	70298	134	11.6
41706	41708	124	2.5	53017	53019	123	2.4	57387	57436	232	48.7	71306	71332	182	25.6
41787	41794	134	7.2	53020	53032	146	11.2	57438	57465	176	27.5	71539	71560	142	21.5
41983	41987	130	4.1	53038	53042	131	4.4	57477	57483	129	5.7	71829	71864	187	34.4
42021	42021	121	0.7	53044	53048	123	4.0	57615	57639	149	24.4	71866	71866	120	0.3
42022	42033	140	10.2	53060	53062	127	2.4	57682	57684	123	2.1	72012	72013	121	0.9
42039	42044	124	5.5	53073	53084	133	11.4	57688	57690	125	2.2	72014	72017	125	3.0
42486	42506	154	19.8	53166	53179	127	13.0	57757	57768	132	10.9	72909	72924	138	14.8
42649	42650	121	1.4	53268	53274	127	5.4	57873	57875	121	1.6	73422	73454	161	32.1
42809	42811	121	2.3	53275	53277	123	2.5	58117	58121	127	4.8	73831	73847	145	16.0
42816	42823	132	7.2	53279	53285	125	5.8	58123	58127	123	4.1	73907	73920	135	13.2
43380	43382	121	2.0	53288	53289	126	1.6	58262	58279	145	16.4	73944	73957	131	12.8
43384	43384	120	0.4	53299	53311	129	12.0	58291	58292	120	0.4	74447	74448	121	1.1
43390	43392	122	1.9	53500	53502	125	2.1	58293	58312	134	18.2	74639	74658	160	19.8
43393	43403	136	10.1	53506	53509	125	2.5	58322	58323	121	1.3	74997	75001	127	4.0
43490	43496	129	6.2	53584	53589	126	4.5	58352	58366	127	14.3	75004	75004	120	0.4
43609	43611	121	2.4	53590	53610	146	20.1	58562	58577	144	15.3	75009	75010	120	0.5
43614	43616	123	1.9	53612	53615	128	3.7	58584	58586	123	2.1	76054	76054	120	0.3
43889	43912	149	23.7	53668	53668	121	0.7	58810	58816	125	5.7	76591	76592	121	1.0
44167	44169	121	1.6	53790	53804	145	13.7	58818	58819	121	1.1	76593	76595	123	1.6
44171	44172	121	0.8	53877	53878	121	0.8	58821	58829	137	8.6	76917	76935	165	17.4
44293	44313	146	19.6	53885	53898	135	12.7	59813	59813	120	0.3	77026	77027	121	1.4
44344	44369	140	24.2	53908	53911	127	2.5	59814	59816	124	2.5	77309	77314	130	4.3
44905	44910	125	4.4	53911	53952	174	41.1	59930	59950	147	19.9	77352	77366	135	13.6
44924	44946	160	21.6	53954	53957	124	3.7	60078	60089	136	10.8	77398	77400	122	1.6
45086	45093	128	7.8	54137	54162	166	25.3	60091	60094	126	3.5	77729	77760	249	30.4
45354	45375	170	20.8	54187	54238	151	51.4	60100	60102	125	2.5	77765	77766	122	1.5
45402	45424	149	21.7	54252	54259	127	7.1	60689	60702	139	13.0	77770	77814	175	44.2
45424	45427	127	2.1	54400	54404	127	4.3	60737	60752	142	14.6	77899	77931	289	31.8
45485	45511	163	25.6	54414	54425	137	10.6	60794	60819	154	25.3	78018	78087	425	68.4
45536	45615	212	79.6	54484	54496	135	11.6	60922	60969	173	46.8	78117	78119	124	1.6
45617	45618	121	0.8	54602	54624	176	21.9	61989	61990	120	0.3	78121	78125	124	4.2
45639	45674	210	34.6	54631	54657	164	26.6	61991	62012	145	21.6	78125	78182	183	57.1
46986	46988	121	2.0	54809	54810	122	1.1	62020	62036	131	16.3	78187	78213	164	25.9
47050	47057	129	6.9	55353	55361	140	7.6	62325	62335	136	10.0	78237	78258	149	21.4
47270	47273	122	2.2	55402	55406	124	4.1	62535	62556	143	21.0	78391	78407	148	16.5
47274	47277	123	2.6	55491	55494	121	3.3	62557	62558	121	0.7	78654	78664	143	9.7
48447	48451	126	4.1	55495	55503	132	7.8	63179	63183	127	3.7	78672	78681	143	9.4
48477	48477	120	0.3	55504	55508	135	3.6	63287	63312	152	24.4	78717	78740	149	22.8
48479	48498	161	18.9	55511	55513	126	1.9	64286	64306	143	20.3	78820	78878	333	58.5
48500	48508	135	7.2	55515	55516	121	1.0	64306	64310	134	4.2	78961	78963	122	1.7
48545	48548	125	3.6	55518	55524	128	6.1	64700	64706	129	5.8	79171	79183	131	11.6
49367	49368	121	0.9	55749	55754	135	5.7	64946	64955	135	9.0	79186	79223	156	36.8
49370	49383	145	12.9	55757	55759	124	2.5	64964	64971	149	7.1	79269	79271	123	1.9
49387	49399	136	11.9	55838	55856	165	17.9	65119	65137	154	18.2	79277	79284	131	6.9
49497	49538	169	40.7	56095	56100	134	5.7	65279	65304	176	24.8	79358	79746	542	387.6
49824	49827	126	3.6	56105	56105	120	0.2	65324	65325	120	0.5	81071	81080	131	8.9
49834	49843	138	9.4	56107	56121	151	13.3	66235	66248	142	13.0				
49892	49903	133	11.3	56123	56128	125	4.5	66682	66746	211	64.4				
50358	50358	120	0.4	56395	56397	124	2.0	66751	66758	140	6.3				

Kern 99 Southbound Lane 3 PM R43.9

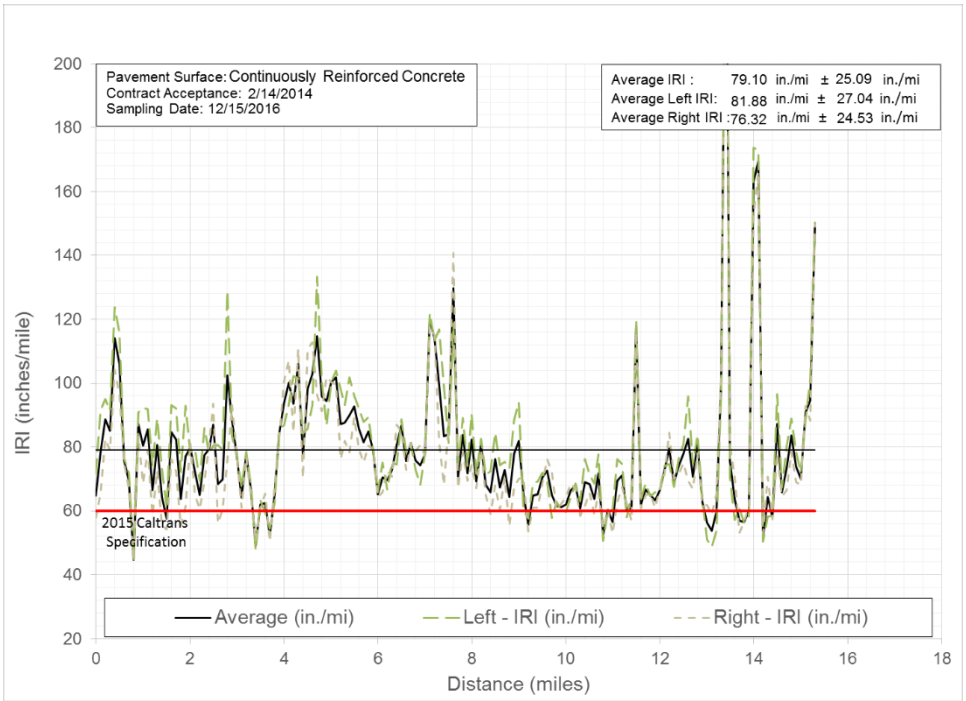

Figure A.30: Ker99S3PMR43.9

Table A.30: Defective Segments from Ker99S3PMR43.9

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
407	413	129	5.9	15041	15043	124	2.2	23862	23871	130	8.7	27055	27060	131	4.3
417	419	122	2.0	15313	15314	121	1.0	23875	23877	123	2.0	27089	27091	121	2.0
423	425	123	2.3	15378	15380	122	2.0	23880	23884	131	4.2	27093	27094	120	0.7
1029	1037	138	7.4	15381	15383	122	1.8	23885	23887	123	2.2	27167	27192	198	24.8
1327	1328	122	1.1	15387	15395	133	8.1	23893	23921	211	28.2	27305	27313	132	7.7
1399	1402	128	3.3	15463	15467	126	3.3	23934	23972	191	38.0	27316	27317	121	1.0
1408	1415	126	7.3	15504	15518	132	13.7	23985	23989	129	3.4	27323	27324	122	1.1
1443	1450	125	6.4	15521	15523	121	1.6	24063	24094	214	30.6	27368	27374	131	5.3
1560	1576	139	15.3	15533	15540	137	6.9	24115	24130	133	14.1	27375	27377	123	1.6
1793	1813	137	20.0	15590	15593	126	2.7	24146	24175	180	29.0	27381	27382	121	1.2
1899	1933	164	34.7	15597	15601	126	4.0	24177	24177	120	0.3	27563	27590	164	27.4
1937	1943	126	5.8	15604	15613	139	9.8	24198	24201	122	3.0	27595	27624	172	28.5
2313	2315	121	2.0	15624	15649	159	25.4	24265	24271	133	6.2	27782	27800	135	17.2
2316	2427	277	111.6	15652	15657	124	4.4	24311	24337	155	25.9	28049	28078	177	28.3
2428	2429	121	1.0	16073	16159	208	86.9	24339	24340	122	1.2	28292	28316	188	24.5
2523	2526	122	2.5	16162	16166	126	3.8	24350	24424	243	73.7	28416	28431	130	15.6
2526	2537	136	10.3	16166	16198	161	31.9	24428	24429	120	0.3	28433	28434	121	1.0
2627	2636	141	9.6	16575	16582	139	7.1	24432	24521	189	89.4	28585	28591	134	5.7
2687	2747	274	60.4	16694	16703	132	9.3	24559	24578	168	19.3	28776	28776	121	0.6
2758	2774	133	15.7	16705	16714	135	8.9	24581	24582	121	1.2	28815	28821	126	5.6
2966	2967	122	1.8	16724	16729	127	5.0	24706	24711	129	4.7	29043	29065	141	22.4
3120	3124	124	4.0	19878	19882	122	3.5	24854	24855	121	1.2	29322	29357	205	34.6
3342	3344	124	2.1	20256	20271	135	15.3	24855	24864	138	8.8	29358	29365	133	7.2
3346	3351	133	5.0	20273	20278	124	5.0	24868	24871	127	3.9	29375	29412	201	36.8
3715	3720	134	5.5	20351	20352	122	1.6	24875	24911	192	36.5	29493	29499	122	5.5
3835	3843	131	7.8	20604	20626	152	21.4	24914	24927	145	13.4	29584	29608	147	23.6
5094	5099	130	4.6	20923	20924	121	1.0	24931	24934	123	3.4	29631	29642	131	10.5
5105	5106	121	1.4	21275	21279	125	3.9	25167	25182	142	14.8	29643	29650	129	7.0
5108	5117	136	9.1	21281	21310	147	29.2	25183	25193	141	9.6	29765	29781	144	15.6
5180	5183	123	3.1	21348	21353	123	4.8	25482	25520	245	37.9	30013	30013	120	0.7
5184	5187	127	2.8	21392	21401	130	9.1	25556	25565	131	8.7	30022	30033	138	10.8
5187	5193	127	5.7	21435	21462	174	27.9	25575	25577	126	2.2	30203	30216	129	13.4
5268	5286	137	17.7	21501	21527	172	26.0	25597	25599	124	1.8	31247	31252	125	5.1
5287	5289	127	3.0	21534	21542	137	7.2	25613	25616	129	3.4	31257	31259	123	1.6
5943	5944	124	1.8	21620	21637	132	17.6	25617	25618	121	0.8	31265	31270	140	4.8
5947	5948	122	1.3	21647	21681	220	33.2	25771	25791	139	20.1	31279	31280	121	1.1
6272	6304	317	31.9	21705	21723	140	17.9	25839	25862	155	23.2	31483	31484	121	0.9
6305	6307	123	1.1	21771	21772	121	2.0	25920	25923	125	2.9	33179	33180	122	1.1
6881	6892	138	11.3	21777	21794	132	17.3	25928	25959	164	31.2	33600	33603	124	3.0
6925	6939	135	13.5	21797	21799	120	1.4	26022	26024	124	1.8	33971	33974	126	3.6
8415	8444	151	29.1	21800	21801	121	1.1	26027	26028	121	1.5	34014	34022	133	8.7
9136	9160	161	23.6	21804	21808	130	4.4	26090	26111	151	21.1	34073	34099	149	25.8
9702	9720	146	17.9	21816	21817	121	1.0	26189	26207	144	18.0	34117	34145	178	28.2
10511	10512	120	0.9	21891	21891	120	0.4	26248	26261	135	13.1	34377	34378	121	1.2
10515	10527	132	12.5	22044	22078	161	34.0	26289	26338	227	49.0	34403	34427	175	23.8
10530	10531	120	0.8	22132	22133	121	1.1	26338	26338	120	0.1	34671	34680	131	8.8
10672	10693	138	20.6	22144	22145	122	1.0	26425	26455	166	29.5	34895	34902	131	7.5
10833	10840	137	7.3	22153	22166	135	13.4	26491	26508	148	16.2	34906	34908	122	1.6
10855	10916	256	60.9	22167	22168	122	1.1	26527	26538	135	10.7	34912	34913	121	1.0
12371	12373	124	1.7	22300	22320	137	20.5	26539	26540	121	1.1	34970	34970	120	0.6
12383	12385	121	1.6	22565	22586	153	20.9	26560	26574	145	14.4	34973	34975	123	2.2
12406	12431	148	24.9	22652	22657	133	5.0	26596	26626	215	30.2	34976	34981	131	4.6
12458	12471	139	13.0	22658	22660	123	2.0	26657	26660	122	3.3	35397	35404	133	7.1
12727	12752	158	25.0	22715	22749	204	34.5	26661	26679	159	18.6	35411	35421	142	10.0
12811	12829	141	18.4	22823	22848	174	24.9	26682	26690	132	8.3	35554	35594	245	39.9
12911	12922	131	10.4	22852	22879	161	26.4	26697	26701	123	4.4	36345	36363	161	18.5
13084	13095	130	11.1	22908	22916	129	8.1	26736	26761	160	25.4	36584	36589	126	4.4
13485	13485	120	0.9	22946	22954	131	7.8	26769	26772	128	3.0	37193	37198	127	4.8
13529	13545	139	16.2	22976	23017	173	41.3	26777	26781	131	3.7	37208	37209	120	0.7
13579	13580	120	0.6	23071	23089	150	17.5	26957	26959	121	1.8	37553	37563	131	10.1
13627	13684	245	56.4	23089	23094	123	4.8	26960	26988	155	28.0	37586	37608	171	22.6
15019	15039	140	20.0	23172	23174	125	2.0	26989	27010	151	20.8	37696	37698	122	2.6

Table A.30: Defective Segments from Ker99S3PMR43.9 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
37740	37743	124	2.6	53560	53573	140	13.9	70363	70380	148	16.6				
37772	37775	125	3.0	53574	53577	125	2.8	70645	71159	732	513.8				
37778	37824	165	46.8	53675	53689	133	14.3	71164	71267	289	103.1				
37847	37872	150	25.1	53855	53870	135	15.1	71286	71288	123	2.4				
37894	37924	167	29.8	54018	54021	123	3.1	71296	71301	131	5.2				
37925	37926	120	0.3	54091	54092	121	0.7	71412	71427	143	15.4				
37930	37943	147	12.6	54096	54096	120	0.5	71428	71431	122	2.6				
37958	38108	358	150.0	55590	55602	135	11.8	71554	71555	121	1.1				
38148	38193	225	45.1	55607	55610	130	3.4	71555	71583	168	27.4				
38981	38983	122	1.6	55687	55688	121	1.2	71603	71604	120	0.5				
39372	39377	127	5.2	55701	55703	121	1.1	71793	71822	271	29.4				
39926	39931	130	5.4	55712	55737	158	24.5	71825	71847	157	22.6				
40007	40056	187	48.7	56178	56185	127	7.1	72260	72265	132	4.6				
40058	40059	120	1.2	56735	56755	145	20.5	72582	72593	129	10.8				
40062	40065	124	2.8	56814	56829	139	14.8	72925	72951	183	25.8				
40082	40114	201	31.5	56866	56868	124	2.6	74103	74128	143	25.1				
40117	40118	121	1.3	57140	57152	135	12.0	74136	74727	376	590.5				
40135	40151	148	15.4	57845	57861	131	16.0	75919	75942	140	22.6				
40200	40220	161	20.7	58953	58970	140	17.4	76682	76751	243	69.4				
40251	40254	129	3.0	60001	60010	137	8.0	76751	76799	181	47.6				
40262	40268	123	5.7	60479	60504	182	25.1	77323	77324	121	0.8				
40276	40277	121	0.8	60730	60893	350	162.3	77324	77337	145	12.6				
40279	40355	231	76.9	60905	60923	154	18.7	78366	78376	127	10.3				
40359	40408	163	49.0	61038	61057	136	18.4	78378	78424	168	46.3				
40437	40533	260	96.1	61077	61102	163	25.1	78429	78430	121	1.1				
40542	40605	293	62.6	61113	61121	145	8.9	78973	78985	133	12.5				
40989	41004	140	14.9	61126	61139	149	12.7	79005	79016	130	11.2				
41039	41054	128	15.4	61327	61332	132	5.0	79526	79541	161	14.8				
41077	41097	138	19.3	61389	61393	128	4.0	79722	79723	121	1.0				
41480	41481	122	1.1	62076	62078	124	2.0	79730	79747	156	16.6				
41482	41508	150	25.5	62401	62405	124	4.4	79749	79753	125	3.9				
41724	41724	120	0.6	62412	62415	127	2.9	79854	79879	184	25.1				
41725	41746	150	20.4	62517	62519	123	1.7	80037	80062	155	24.6				
41749	41753	131	4.1	62522	62532	127	10.5	80118	80118	120	0.2				
41759	41790	183	30.8	63425	63442	141	17.1	80124	80128	128	3.6				
42496	42514	141	17.6	64374	64375	121	1.2	80166	80166	121	0.6				
42721	42746	166	25.3	64416	64469	194	52.7	80168	80180	129	12.2				
42769	42787	142	18.9	64600	64626	210	26.6	80288	80299	140	10.8				
43351	43353	123	2.7	64695	64704	125	8.0	80734	80780	231	45.4				
43359	43360	120	0.4	64992	65005	138	13.5	80784	80798	151	14.4				
43361	43362	122	1.2	65007	65009	125	2.5	80800	80804	125	3.4				
43362	43396	222	33.1	65050	65057	128	6.3	80833	80848	239	14.9				
43767	43775	130	7.6	65060	65069	130	8.2								
46004	46005	121	0.7	65686	65689	127	3.2								
47962	47964	122	2.0	65698	65700	123	1.5								
47967	47969	126	2.5	65745	65746	122	1.4								
48337	48340	123	2.3	65751	65753	124	1.6								
48429	48472	272	42.8	65755	65757	123	1.8								
49318	49319	121	0.8	65757	65761	125	3.6								
49858	49875	140	16.8	65835	65842	126	7.1								
50256	50257	121	1.1	66181	66193	136	12.1								
50264	50288	140	24.2	66448	66464	130	16.8								
50468	50494	184	26.3	66465	66466	120	0.8								
51014	51045	141	30.4	67318	67357	255	39.0								
51046	51050	125	4.3	67376	67389	134	13.8								
51309	51324	133	15.0	67584	67607	164	23.1								
51494	51510	157	16.5	67615	67674	356	59.6								
51542	51543	120	1.1	68805	68808	126	2.8								
51549	51555	123	6.2	68902	68914	153	12.1								
52890	52891	121	1.6	69825	69827	124	1.9								
52896	52898	122	1.7	69981	69995	137	14.3								

Kern 99 Northbound Lane 1 PM R27.0

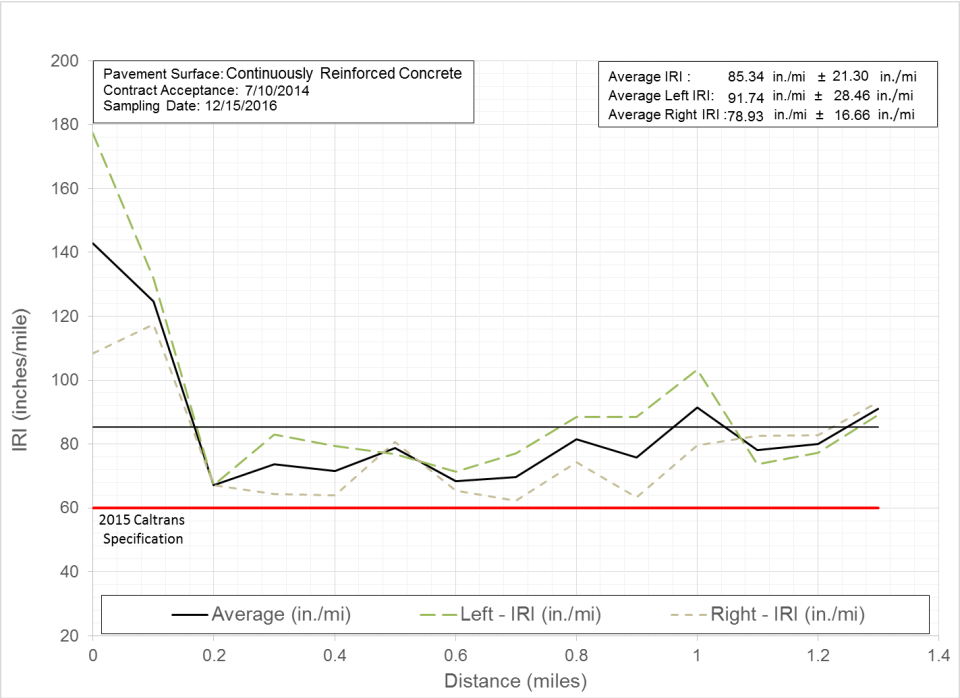

Figure A.31: Ker99N1PM27.0

Table A.31: Defective Segments from Ker99N1PM27.0

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
43	45	122	1.8												
176	207	445	31.5												
393	461	243	67.7												
486	739	311	253.3												
756	781	140	25.1												
793	798	125	5.7												
1167	1201	187	34.6												
1818	1851	178	32.6												
2350	2351	122	0.9												
2726	2748	145	22.2												
3005	3030	163	25.3												
3722	3724	127	2.4												
4518	4547	159	28.9												
4555	4557	124	1.7												
4689	4691	123	2.2												
4703	4703	120	0.2												
4705	4708	122	2.4												
4723	4732	142	9.1												
4764	4768	122	3.8												
5306	5327	153	20.6												
5440	5465	176	24.9												
5479	5498	136	18.9												
5760	5772	137	12.1												
5792	5811	138	19.2												
5867	5929	172	62.2												
5970	5970	120	0.4												
6025	6028	128	3.0												
6029	6031	122	1.9												
6251	6255	123	3.6												
6257	6271	144	13.4												
6675	6691	138	16.4												
6801	6814	144	13.3												
6839	6875	187	35.5												
7032	7036	130	4.3												
7039	7042	133	3.3												
7045	7047	121	2.8												
7087	7133	238	45.5												

Kern 99 Southbound Lane 1 PM R28.4

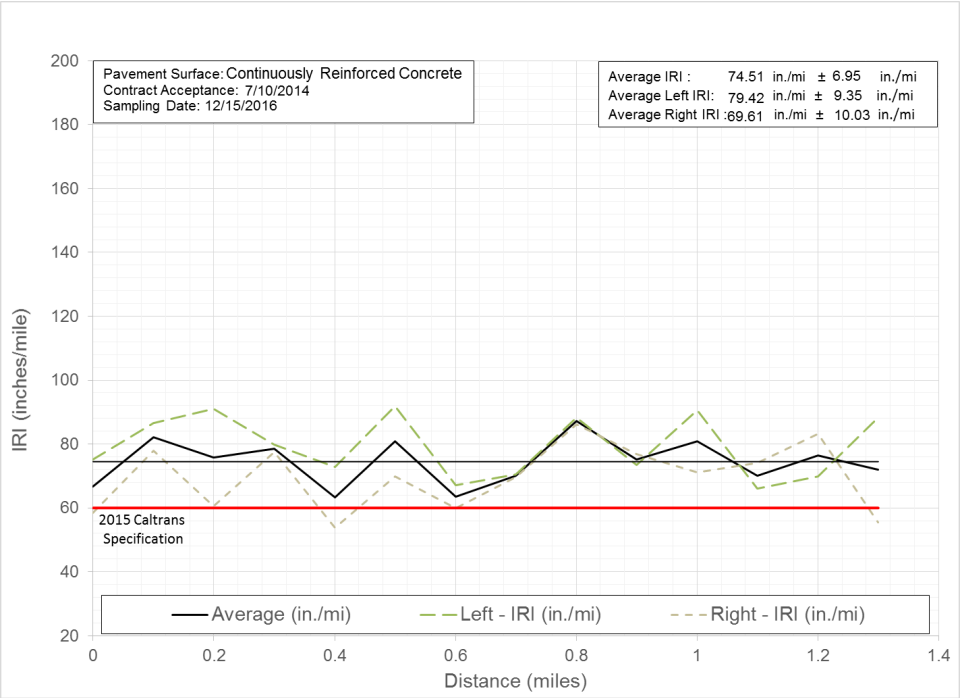

Figure A.32: Ker99S1PM28.4

Table A.32: Defective Segments from Ker99S1PM28.4

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
626	635	127	8.4												
635	635	120	0.1												
641	645	127	4.4												
648	653	126	4.6												
865	893	154	28.5												
1003	1006	128	3.1												
1673	1709	154	35.9												
1844	1869	172	24.0												
2566	2584	144	17.6												
3018	3018	120	0.7												
3048	3076	197	28.1												
3078	3081	127	3.3												
3126	3147	143	21.1												
3328	3337	131	9.4												
3425	3437	133	12.3												
3438	3439	123	1.6												
4115	4125	136	10.5												
4259	4265	137	5.7												
4330	4367	164	37.2												
4500	4523	158	22.8												
4547	4560	141	13.2												
4582	4586	123	3.6												
4804	4817	136	12.8												
4915	4915	120	0.5												
4933	4933	120	0.2												
5116	5125	128	8.4												
5125	5135	139	9.6												
5354	5376	139	22.6												
5379	5381	127	2.1												
5382	5395	135	13.5												
5631	5632	121	1.5												
5640	5645	131	5.5												
6223	6224	122	1.6												
6356	6377	156	21.7												
6485	6506	167	21.4												
6669	6674	123	4.9												
6678	6680	121	1.6												
6683	6690	134	6.5												
6723	6733	130	10.0												

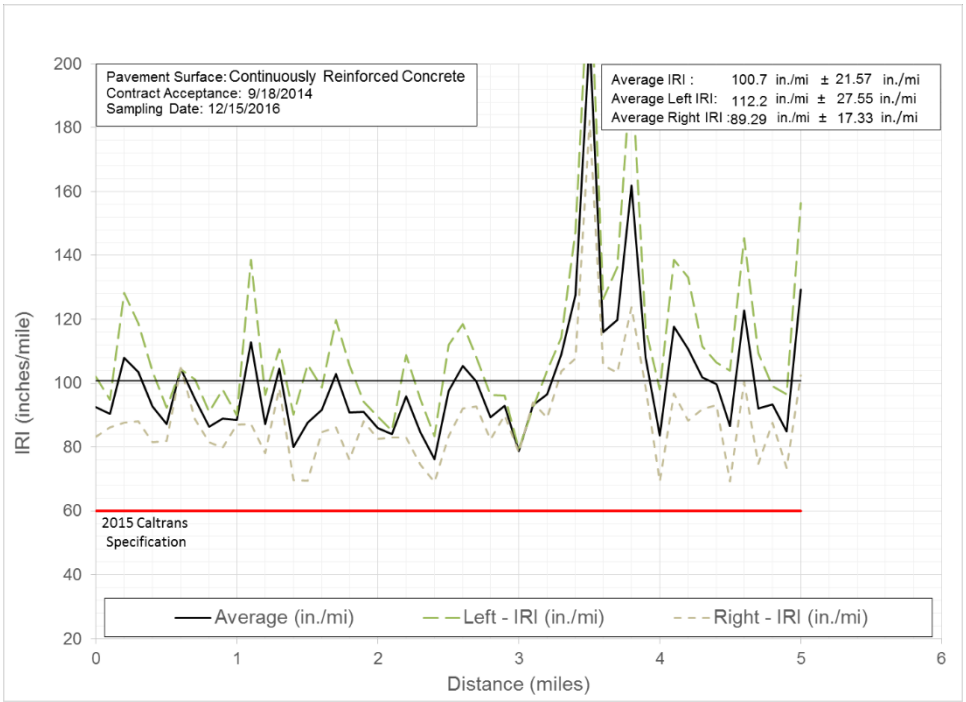

Figure A.33: Ker99N1PM17.1

Table A.33: Defective Segments from Ker99N1PM17.1

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
99	125	164	26.6	4988	5001	131	13.6	11810	11814	124	4.5	17101	17127	181	25.5
294	295	124	1.3	5254	5259	129	4.8	12502	12504	122	2.0	17250	17271	138	20.5
296	321	147	25.1	5276	5278	130	2.5	13437	13449	137	11.7	17271	17274	122	2.8
322	324	126	1.7	5455	5460	124	4.8	13450	13453	128	2.9	17467	17492	151	24.4
598	604	123	5.8	5467	5493	161	26.3	13461	13467	128	6.6	17646	17671	201	25.3
605	606	120	0.4	5916	5955	182	39.2	13468	13498	194	29.8	17693	17783	196	90.5
621	624	130	3.7	6036	6040	130	3.9	13574	13585	125	11.3	17803	17815	134	11.9
628	644	130	16.6	6234	6252	144	17.5	13650	13652	123	2.3	17819	17827	138	7.9
685	710	150	25.1	6313	6315	124	2.5	13661	13666	125	4.1	17827	17853	156	25.3
714	715	122	1.8	6317	6333	153	16.1	13694	13699	126	5.0	17978	17980	122	2.4
716	720	122	4.8	6337	6342	124	4.3	13700	13702	124	1.7	18128	18177	158	49.1
734	736	122	1.1	6346	6347	122	1.1	13712	13721	130	9.2	18180	18183	129	3.0
737	758	155	20.8	6353	6362	146	9.1	13769	13771	122	1.8	18188	18213	146	24.8
828	829	122	0.9	6367	6370	126	3.5	13775	13776	122	1.1	18247	18253	137	6.8
830	834	127	3.5	6390	6417	178	27.5	13872	13872	120	0.2	18281	18300	148	19.2
845	846	122	1.5	6499	6518	141	18.9	13873	13875	121	2.0	18322	18335	141	12.3
850	851	121	1.1	6697	6727	177	29.5	13876	13881	131	4.2	18338	18353	134	15.9
1043	1052	127	9.3	7053	7071	157	17.9	13884	13887	123	2.3	18378	18403	162	24.6
1103	1105	127	2.5	7075	7145	204	69.9	13887	13920	198	32.4	18407	18414	136	7.3
1212	1235	169	23.4	7246	7273	161	27.3	13940	13968	158	28.3	18416	18419	128	3.3
1288	1291	125	2.4	7280	7282	121	1.6	13969	13972	121	2.5	18420	18483	190	62.5
1407	1412	123	4.8	7319	7322	129	2.6	13977	13980	129	2.8	18487	18741	375	254.4
1415	1418	126	3.0	7324	7337	137	13.0	14137	14157	159	19.8	18744	18815	248	70.9
1653	1662	133	8.8	7544	7545	120	0.7	14319	14344	141	25.6	18835	18849	139	14.5
1665	1668	124	2.6	7547	7552	130	5.7	14351	14392	167	40.7	18856	18940	253	83.5
1672	1674	127	2.6	7556	7557	121	1.4	14393	14399	130	6.1	18964	18971	128	6.6
1801	1819	142	18.6	8539	8557	145	18.9	14404	14406	123	1.6	18999	19011	145	12.9
2091	2129	158	38.2	8848	8854	128	6.6	14426	14428	122	2.4	19013	19025	143	11.9
2134	2135	121	1.3	9001	9019	155	17.6	14439	14441	123	2.2	19027	19042	142	14.1
2137	2137	120	0.3	9303	9317	135	13.8	14520	14522	122	1.3	19058	19061	124	2.3
2142	2142	121	0.7	9362	9385	166	22.8	14528	14540	135	11.5	19069	19132	247	63.6
2442	2466	181	23.5	9449	9475	153	25.8	14709	14728	160	18.7	19171	19184	141	13.3
2566	2602	175	36.2	9503	9504	120	0.7	15009	15025	146	16.3	19189	19195	136	6.1
2643	2671	154	28.4	9504	9521	148	17.6	15128	15135	136	7.5	19200	19221	162	20.6
2728	2766	221	38.6	9522	9525	124	2.8	15143	15145	122	1.1	19460	19514	184	54.1
2793	2812	145	18.9	9641	9642	120	0.7	15171	15179	134	8.5	19516	19530	132	14.3
3357	3361	123	3.4	9645	9645	120	0.3	15314	15343	152	29.0	19535	19550	135	14.8
3441	3443	122	1.5	9648	9648	120	0.2	15513	15558	160	45.3	19563	19564	122	1.1
3446	3446	120	0.8	9688	9714	161	25.2	15608	15609	120	0.8	19572	19611	176	39.3
3448	3450	122	2.5	10118	10121	124	3.3	15609	15611	123	1.6	19612	19644	187	31.9
3500	3531	259	30.8	10129	10132	125	3.0	15614	15628	142	13.2	19650	19676	153	26.8
3576	3578	124	2.0	10287	10311	149	24.4	15841	15843	123	1.6	19677	19680	127	2.6
3578	3643	190	65.1	10372	10374	124	1.8	15847	15854	132	7.3	19681	19684	128	3.0
3672	3673	121	1.4	10376	10382	131	5.5	15857	15861	130	4.7	19685	19731	220	46.0
3675	3680	122	4.7	10384	10395	136	10.6	15922	15922	120	0.2	19859	19864	122	5.1
3718	3723	124	4.8	10458	10484	190	25.9	16075	16099	147	24.0	19996	20027	156	31.3
3726	3737	130	10.8	10836	10841	121	4.8	16114	16116	120	1.8	20029	20042	138	12.6
3738	3740	123	1.8	10848	10850	129	2.3	16119	16123	125	3.4	20077	20110	171	32.9
3823	3832	127	9.5	10853	10858	132	4.8	16434	16447	148	12.9	20130	20132	124	1.6
3907	3922	145	15.3	10860	10876	138	16.2	16448	16449	123	1.7	20138	20139	121	1.1
3955	3956	122	1.5	10878	10879	120	0.5	16512	16513	121	0.9	20141	20144	125	2.7
3988	3988	120	0.2	10881	10884	123	2.8	16515	16526	135	11.4	20201	20228	169	26.7
4131	4135	128	4.1	10960	10961	123	1.7	16681	16682	122	1.4	20252	20274	146	22.4
4180	4183	129	2.9	11308	11318	133	9.6	16685	16687	121	1.2	20299	20330	168	30.5
4186	4187	121	1.2	11390	11414	169	24.0	16689	16692	125	3.0	20374	20389	130	14.7
4308	4315	131	7.5	11632	11636	125	3.6	16696	16697	120	0.5	20457	20515	246	58.2
4317	4320	127	3.5	11639	11641	121	2.1	16699	16703	126	4.0	20519	20520	121	1.2
4321	4332	132	10.7	11697	11699	124	1.9	16847	16892	196	45.4	20534	20545	135	10.7
4691	4716	164	25.3	11701	11703	121	1.5	16893	16894	123	1.1	20549	20638	182	89.4
4802	4827	172	24.8	11705	11715	135	9.5	16965	16966	121	1.1	20659	20696	207	37.0
4869	4870	121	0.8	11716	11721	130	4.6	16971	16987	138	16.1	20729	20733	126	3.9
4951	4960	130	8.5	11803	11805	121	1.6	16995	16995	121	0.6	20743	20746	123	3.5

Table A.33: Defective Segments from Ker99N1PM17.1 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
20748	20750	125	2.3	25381	25383	122	2.1								
20964	20972	131	8.5	25384	25385	123	1.8								
21111	21121	130	10.0	25433	25465	158	31.5								
21151	21166	142	14.8	25506	25525	150	18.7								
21523	21550	161	27.0	25528	25528	120	0.5								
21647	21663	146	16.7	25593	25595	124	1.8								
21693	21707	144	13.8	25597	25606	129	9.3								
21707	21714	126	7.4	25608	25610	122	1.9								
21749	21753	123	4.2	25612	25613	120	0.9								
21772	21773	121	1.2	25719	25728	127	9.6								
21776	21787	133	10.7	25730	25732	121	1.9								
21840	21841	120	0.5	25942	25954	132	12.2								
21930	21950	138	20.5	25955	25958	125	3.0								
22046	22054	126	8.0	26008	26020	137	12.6								
22083	22105	153	21.7	26021	26028	130	6.7								
22160	22186	174	25.7	26242	26263	147	21.2								
22190	22197	127	6.1	26320	26324	123	3.3								
22201	22208	124	6.4	26325	26327	123	1.9								
22209	22213	124	3.4	26327	26330	126	3.0								
22321	22361	160	39.7	26516	26546	169	29.9								
22583	22585	121	2.1	26547	26590	159	43.0								
22594	22599	128	5.2	26590	26597	125	6.9								
22603	22607	131	3.9	26715	26728	159	13.3								
22609	22629	143	19.3	26729	26741	171	11.7								
22716	22718	126	2.7												
22751	22753	122	2.2												
22778	22780	124	2.7												
22781	22788	132	7.4												
22842	22874	172	31.6												
22876	22878	122	1.6												
22880	22882	122	1.1												
22895	22915	161	19.4												
22916	22920	123	3.7												
22958	22959	121	1.2												
22961	22966	123	4.5												
22974	22976	122	1.5												
23100	23122	162	22.5												
23245	23246	123	1.3												
23257	23260	127	2.5												
23328	23356	160	28.3												
23367	23383	144	16.0												
23605	23622	143	16.9												
23657	23693	181	35.3												
23723	23723	120	0.5												
23723	23753	195	29.9												
23920	23941	150	21.1												
24246	24271	164	24.7												
24356	24360	124	3.5												
24363	24381	142	18.5												
24384	24388	123	3.2												
24432	24462	194	29.3												
24544	24575	174	30.6												
24681	24706	159	24.1												
24710	24714	126	3.9												
24729	24732	123	2.8												
24734	24735	122	1.0												
24737	24737	120	0.3												
24749	24800	165	51.3												
24857	24875	148	17.1												
25192	25203	146	10.3												
25377	25380	125	3.1												

Kern 99 Southbound Lane 1 PM R22.1

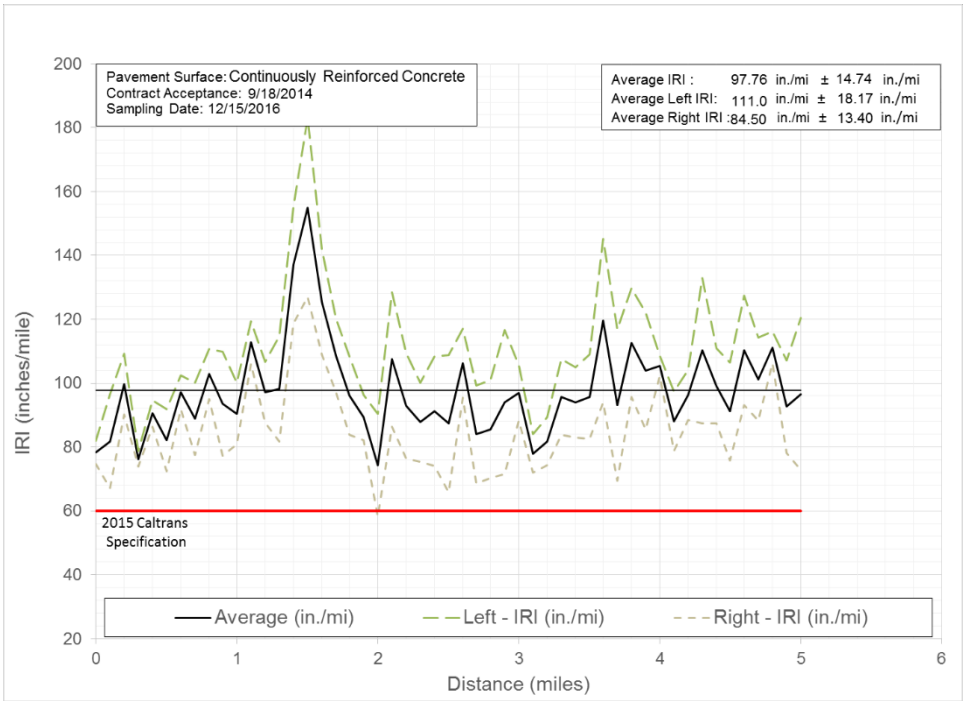

Figure A.34: Ker99S1PM22.1

Table A.34: Defective Segments from Ker99S1PM22.1

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
216	234	139	17.3	4363	4364	120	0.5	8886	8911	167	25.7	17655	17682	202	27.3
365	366	123	1.4	4475	4479	128	3.9	8949	8998	214	48.9	17807	17811	127	4.2
378	379	123	1.3	4485	4523	170	38.0	9134	9206	166	72.3	17813	17819	129	6.7
383	385	127	2.1	4526	4538	138	12.6	9363	9393	167	30.2	17895	17900	131	4.8
797	797	120	0.3	4544	4550	128	6.2	9394	9398	131	3.6	17937	17960	168	23.6
806	815	142	9.3	4809	4826	137	16.8	9401	9404	126	3.2	18016	18035	166	19.1
932	985	173	52.4	4829	4864	169	34.3	9407	9416	136	9.1	18109	18112	133	3.3
1042	1044	123	2.3	4966	4991	140	24.6	9417	9420	127	2.2	18113	18135	166	21.6
1045	1072	160	27.5	4992	4993	122	1.1	9422	9432	133	9.7	18136	18141	125	4.2
1073	1074	122	1.1	5014	5016	121	2.1	9460	9467	144	7.9	18467	18473	128	5.4
1084	1109	159	24.1	5181	5188	126	7.2	9473	9484	140	11.2	18476	18486	132	10.7
1313	1315	123	1.6	5536	5539	131	3.1	9651	9652	123	1.6	18488	18491	129	3.0
1319	1362	154	42.9	5540	5541	121	0.8	9672	9682	140	9.9	18655	18656	122	1.3
1453	1458	127	4.8	5543	5561	143	18.1	9685	9696	133	11.2	18745	18748	123	3.5
1511	1512	121	1.1	5650	5650	121	0.8	9723	9724	121	1.1	18964	18972	132	7.7
1514	1515	121	0.7	5683	5689	127	5.6	9727	9728	120	0.2	19023	19024	121	1.1
1599	1611	136	11.9	5693	5706	133	13.4	9802	9820	159	17.2	19179	19225	212	46.0
1875	1884	135	8.6	5741	5743	121	1.2	10116	10145	168	28.1	19270	19274	130	4.1
1887	1894	127	7.2	5791	5801	136	9.5	10149	10157	128	7.9	19276	19296	145	20.3
1897	1899	123	1.7	5802	5826	147	24.0	10310	10326	149	16.4	19300	19301	125	1.8
1930	1931	123	1.5	5871	5937	176	65.6	10463	10481	149	17.6	19698	19700	123	1.9
1941	1946	134	4.8	5943	5944	122	1.9	10509	10511	123	1.6	19825	19840	139	15.0
1997	2003	128	6.4	5952	5952	120	0.2	10694	10702	138	7.3	20025	20033	129	7.8
2005	2005	120	0.6	5954	5958	128	4.4	10832	10851	152	19.0	20034	20037	124	2.5
2066	2086	136	19.5	5960	5967	130	6.7	11243	11250	132	6.2	20038	20039	120	0.3
2112	2115	123	2.1	6036	6052	139	16.2	11307	11333	172	25.7	20042	20047	135	5.8
2137	2142	130	5.4	6055	6056	121	0.8	11351	11364	132	12.4	20061	20074	145	13.6
2145	2161	146	16.7	6103	6125	165	22.2	11473	11473	121	0.9	20075	20076	121	1.4
2216	2224	136	8.3	6137	6163	192	26.2	11476	11484	140	8.1	20134	20166	191	31.8
2277	2285	133	7.9	6313	6316	123	2.8	11486	11502	155	16.7	20311	20318	131	7.5
2344	2345	120	0.7	6323	6353	171	30.0	11862	11865	123	2.6	20333	20357	160	24.0
2347	2348	120	0.5	6431	6467	204	35.4	12113	12132	140	19.4	20390	20415	148	24.9
2396	2399	122	3.0	6479	6499	152	20.4	12422	12424	122	1.5	20428	20468	183	40.3
2399	2402	123	2.9	6845	6850	130	5.1	12425	12426	121	1.1	20624	20640	135	16.4
2412	2414	121	1.4	6853	6904	204	50.7	12730	12744	144	13.8	20642	20643	121	1.1
2415	2440	150	24.9	6946	6975	150	29.8	13383	13392	130	8.9	20646	20652	126	6.6
2478	2495	138	17.3	7069	7071	121	2.1	13396	13400	126	4.0	20653	20656	124	2.9
2497	2503	138	6.3	7081	7086	127	5.0	13674	13684	132	9.9	20685	20711	141	25.8
2981	3005	154	23.7	7479	7497	145	18.0	13691	13691	120	0.3	20817	20818	120	0.4
3157	3158	120	0.7	7499	7503	132	3.9	13693	13694	123	1.4	20823	20824	121	1.1
3232	3234	125	1.5	7506	7536	178	29.6	13732	13734	122	2.2	20953	20960	143	7.7
3236	3250	143	14.4	7548	7548	120	0.6	13795	13821	151	26.3	21155	21173	146	18.7
3251	3256	131	5.6	7573	7648	272	75.0	13831	13832	121	1.1	21329	21344	145	15.5
3307	3312	140	5.7	7728	7750	160	21.7	13835	13836	120	0.4	21419	21481	229	61.9
3336	3361	151	24.3	7751	7752	126	1.6	13839	13840	122	1.2	21503	21514	152	11.9
3386	3391	131	4.8	7761	7762	121	1.0	13939	13941	122	1.6	21557	21569	132	12.6
3527	3538	135	11.1	7771	7825	191	53.6	13947	13957	131	9.5	21751	21759	145	8.0
3540	3541	122	1.3	7907	7958	201	51.6	13962	13972	131	9.7	21853	21864	140	10.4
3575	3577	122	1.1	8006	8031	164	25.3	14026	14028	121	1.1	21866	21873	131	7.4
3579	3600	146	20.9	8047	8125	246	77.6	14072	14073	120	0.2	22024	22027	126	3.0
3602	3604	125	2.2	8128	8165	207	36.4	14074	14075	122	1.4	22352	22391	229	39.2
3606	3608	128	2.1	8209	8212	124	2.8	14220	14236	144	15.9	22481	22483	121	2.0
3609	3611	124	1.9	8353	8381	194	27.5	14241	14244	123	3.2	22515	22544	168	29.0
3775	3781	124	6.2	8387	8426	192	38.7	15801	15808	131	6.6	22548	22549	122	1.1
3810	3812	121	1.4	8429	8429	121	0.7	15933	15934	121	1.1	22556	22571	138	15.2
3815	3817	122	2.3	8432	8434	122	1.4	15937	15943	123	5.6	22592	22617	190	24.7
4051	4053	123	2.1	8446	8479	148	33.5	16183	16198	137	14.7	22750	22767	141	16.7
4212	4216	127	4.5	8487	8488	123	1.6	16245	16273	174	28.3	22768	22770	126	2.7
4253	4260	145	7.3	8538	8563	147	25.6	16366	16391	148	24.2	22771	22772	122	1.4
4262	4266	129	3.9	8573	8601	145	27.4	17125	17151	149	26.2	23161	23187	161	25.7
4268	4281	148	13.1	8637	8644	126	7.1	17446	17470	175	24.4	23197	23198	121	0.7
4282	4313	144	31.5	8728	8764	190	35.8	17652	17655	122	2.4	23528	23553	162	24.8

Table A.34: Defective Segments from Ker99S1PM22.1 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
23586	23597	140	10.7												
23599	23601	120	1.5												
23646	23663	133	16.8												
23816	23817	121	1.0												
23818	23828	132	9.8												
23841	23844	128	3.0												
23847	23865	145	18.0												
24064	24064	120	0.3												
24065	24096	177	30.3												
24379	24402	148	23.5												
24465	24469	126	4.3												
24474	24484	135	9.8												
24513	24535	149	21.3												
24578	24587	127	8.7												
24589	24597	132	7.2												
24668	24679	140	10.9												
25113	25136	140	23.1												
25174	25205	165	31.2												
25206	25252	163	45.7												
25259	25260	124	1.7												
25263	25269	125	5.1												
25270	25276	126	6.1												
25323	25342	138	19.1												
25449	25449	120	0.2												
25450	25457	126	6.8												
25513	25515	122	1.4												
25552	25561	143	8.9												
25567	25580	153	12.5												
25606	25658	201	51.6												
25819	25845	185	26.2												
26083	26104	143	21.1												
26229	26231	125	2.1												
26232	26253	162	21.4												
26306	26308	123	1.4												
26452	26467	143	15.4												
26627	26651	164	23.9												
26679	26709	179	30.1												

Merced 99 Northbound Lane 3 PM 4.6

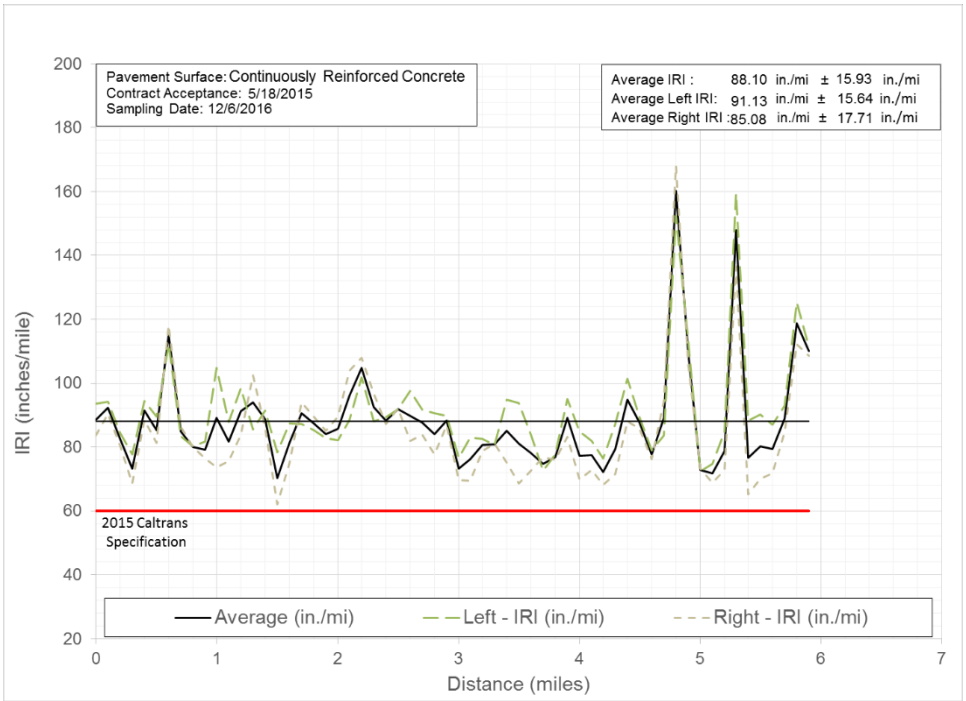

Figure A.35: Mer99N3PM4.6

Table A.35: Defective Segments from Mer99N3PM4.6

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
109	135	173	25.8	9425	9433	146	8.5	14738	14742	126	3.8	28082	28196	481	114.1
178	185	131	7.0	9433	9486	202	52.3	14747	14753	123	5.5	28202	28246	193	44.6
186	187	124	1.5	9716	9718	123	1.8	14757	14761	124	4.2	28249	28252	127	3.0
675	726	230	50.8	9814	9815	120	1.1	15282	15292	138	10.6	28257	28306	191	48.9
751	759	125	7.7	9816	9830	134	14.4	15350	15395	174	45.7	28315	28349	254	33.1
951	970	156	19.1	9841	9842	124	1.6	15397	15403	124	6.6	28349	28354	126	5.0
2480	2491	129	10.4	9846	9874	158	27.3	15404	15424	138	19.6	28355	28359	125	4.3
2493	2493	121	0.8	10009	10012	129	3.0	15426	15429	122	3.1	28550	28560	135	10.1
2553	2556	126	3.0	10014	10015	120	0.5	15490	15501	142	11.6	29428	29430	122	1.8
2583	2602	138	18.9	10058	10082	154	24.5	15633	15639	128	6.3	30472	30486	148	14.8
2707	2712	133	5.0	10284	10293	128	8.9	17354	17359	129	5.1	30545	30570	164	25.4
2771	2773	122	1.3	10477	10499	141	21.9	17601	17606	130	4.8	30576	30699	225	123.2
2775	2782	137	6.6	10801	10804	126	3.6	17923	17934	143	10.7	30709	30722	141	12.6
3350	3355	129	4.7	10811	10813	123	2.1	17935	17948	132	13.1	30751	30785	187	33.5
3400	3422	137	22.7	10912	10947	155	35.3	17974	17980	129	5.4	30852	30853	121	0.9
3445	3538	256	92.8	11031	11054	146	23.0	17982	17989	131	6.1	30853	30871	135	18.0
3540	3570	188	29.4	11110	11112	124	1.9	17990	17995	135	4.8	31011	31030	138	18.9
3659	3730	261	70.7	11115	11141	143	26.2	17997	17997	121	0.8	31033	31034	121	0.8
3756	3759	124	3.1	11143	11152	139	9.1	19225	19235	130	10.3	31060	31072	136	11.6
3815	3818	124	2.5	11173	11197	143	24.1	19377	19379	122	1.5	31137	31140	125	2.8
3819	3821	124	1.9	11381	11403	166	22.1	19621	19621	120	0.7	31204	31229	145	24.7
3835	3836	121	0.7	11404	11404	120	0.5	20361	20367	130	6.7	31243	31245	124	2.6
3838	3849	127	10.5	11422	11443	144	21.5	20370	20374	124	3.9	31246	31255	146	8.6
4479	4498	142	18.4	11520	11527	127	6.3	20460	20464	127	3.9	31260	31268	136	7.5
4498	4500	122	1.4	11535	11571	183	35.9	21006	21011	133	5.0	31279	31286	129	6.4
6289	6312	148	22.9	11621	11625	132	4.2	21015	21018	126	2.9	31347	31348	121	0.7
6631	6633	122	1.6	11675	11676	122	1.3	21028	21029	122	1.1	31359	31377	141	17.8
6635	6643	131	8.2	11678	11703	137	25.3	21040	21041	121	1.8	31378	31379	121	1.0
6648	6648	120	0.9	11704	11705	121	0.9	21042	21059	149	16.7	31411	31420	134	9.3
6653	6655	123	1.7	11719	11720	123	1.3	22800	22804	127	3.8	31455	31471	138	15.5
6902	6905	123	3.2	11722	11724	121	1.7	22805	22813	130	7.4	31472	31491	154	19.3
6953	6967	141	13.9	11726	11727	121	1.1	22815	22823	132	8.4	31493	31504	133	10.5
7054	7056	125	2.3	11730	11746	144	16.4	23446	23447	121	1.4	31511	31536	160	25.0
7057	7089	159	31.7	11776	11807	181	31.5	23483	23484	121	0.8	31545	31570	151	24.7
7106	7108	124	2.5	12000	12005	127	4.2	23657	23658	121	0.8	31618	31621	128	3.2
7114	7118	130	4.0	12009	12078	175	69.1	23660	23681	149	21.2	31638	31650	136	11.8
7120	7121	121	1.1	12090	12097	124	6.3	23687	23690	126	2.4				
7123	7125	122	1.2	12097	12130	170	33.0	23724	23725	120	0.6				
7137	7138	120	0.7	12133	12136	124	3.0	23729	23734	130	5.7				
7150	7152	123	1.4	12145	12150	127	5.5	23875	23881	144	6.5				
7158	7161	124	3.2	12210	12212	122	1.3	23884	23890	127	6.4				
7163	7164	121	1.0	12267	12269	123	1.9	23891	23893	123	2.1				
7165	7170	131	5.2	12270	12317	205	46.2	23898	23900	124	1.9				
7171	7203	156	31.5	12488	12499	139	10.4	23937	23938	121	1.0				
7205	7237	160	32.5	12512	12514	125	2.5	24016	24026	125	10.7				
7339	7364	164	25.2	12516	12517	121	1.3	24029	24031	123	2.0				
7366	7377	129	11.3	12605	12606	122	1.4	24176	24192	138	15.1				
7381	7384	123	2.2	12610	12611	121	1.0	24253	24254	120	0.8				
7398	7404	135	6.0	12614	12618	123	3.8	25008	25031	140	23.2				
7411	7412	122	1.2	12619	12619	120	0.2	25122	25123	120	0.4				
7413	7417	123	3.3	12730	12754	162	24.3	25129	25134	127	5.5				
7588	7611	150	23.1	12840	12848	142	8.5	25169	25172	125	2.7				
7611	7613	124	1.6	13154	13175	143	20.9	25173	25174	120	0.3				
7616	7617	121	1.1	13406	13440	184	34.6	25220	25225	133	4.2				
7620	7621	121	0.7	13442	13480	179	38.5	25237	25247	152	10.4				
7622	7623	121	0.9	13536	13541	122	5.3	25252	25253	121	1.2				
7674	7675	121	1.3	13548	13553	133	5.2	25256	25262	134	5.7				
8739	8742	126	3.0	13554	13562	131	8.2	25332	25616	322	283.5				
8781	8807	176	25.9	13990	13995	124	5.0	25674	25676	121	1.9				
9103	9131	171	27.5	14212	14214	125	2.1	25801	25931	316	130.0				
9192	9196	125	3.3	14215	14249	167	33.3	25938	25948	140	9.3				
9379	9380	121	1.1	14705	14717	133	11.2	25950	26001	258	51.2				

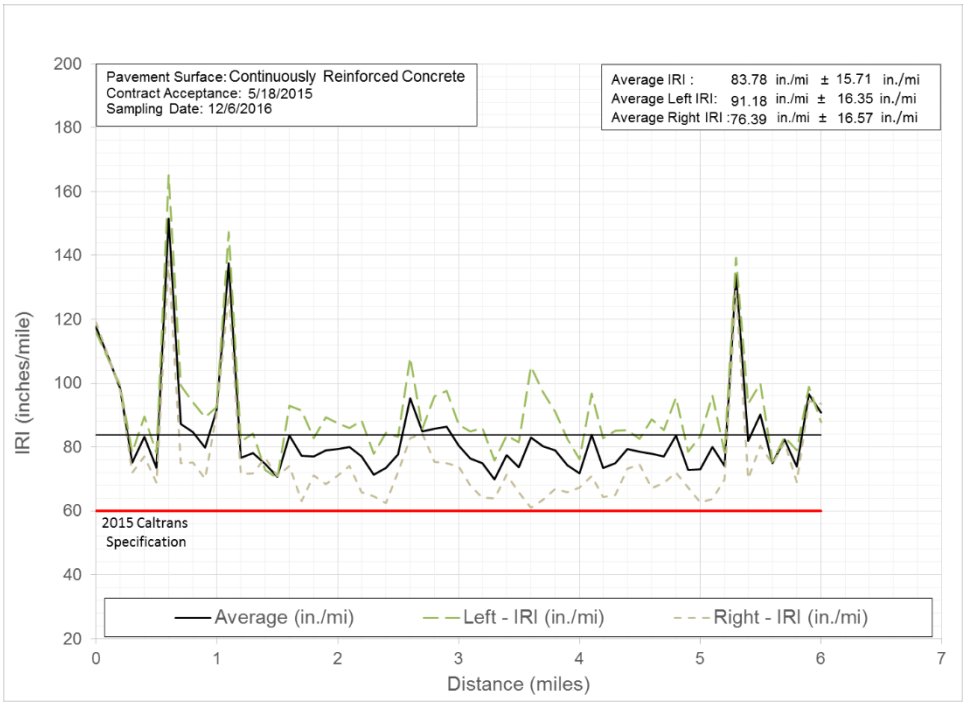

Figure A.36: Mer99S3PM10.5

Table A.36: Defective Segments from Mer99S3PM10.5

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
14	50	246	36.3	20094	20096	124	2.5								
123	123	120	0.6	20100	20103	129	3.2								
129	132	124	3.3	20104	20105	120	0.5								
139	141	125	2.0	21551	21553	123	2.2								
206	208	123	1.8	21556	21556	120	0.4								
218	292	190	74.3	23716	23730	141	13.9								
320	321	120	0.7	23733	23743	140	10.5								
324	360	192	36.7	23849	23851	124	2.3								
364	370	124	6.0	26228	26231	124	3.8								
386	389	128	3.0	28030	28057	159	26.8								
439	461	144	22.4	28063	28063	121	0.7								
515	515	121	0.7	28064	28073	143	8.9								
517	519	122	1.6	28073	28259	344	186.1								
610	622	145	11.2	29508	29584	233	76.0								
626	661	144	35.8	29938	29942	127	4.6								
665	674	133	9.4	30144	30148	124	3.7								
695	711	141	15.9	30151	30153	122	1.5								
716	717	121	0.7	30156	30164	133	7.6								
767	770	125	3.0	30190	30192	123	2.4								
810	831	143	20.5	30199	30201	123	2.1								
879	888	127	9.1	30221	30223	122	1.6								
896	932	176	36.2	31247	31248	121	1.1								
933	935	128	2.2	31250	31256	126	5.7								
938	975	172	37.1	31269	31271	123	1.6								
998	1013	133	14.8	31286	31293	130	7.8								
1049	1123	362	73.9	31307	31327	137	19.9								
1391	1414	153	22.8	31358	31392	222	34.0								
2880	2882	123	1.7	31537	31540	127	2.8								
3134	3145	126	11.0	31542	31566	154	23.9								
3354	3373	156	18.5	31753	31772	148	19.2								
3387	3422	237	35.4	31799	31803	122	4.2								
3464	3641	459	176.3												
4430	4436	127	5.9												
4791	4794	123	2.9												
5372	5374	125	2.8												
5378	5395	135	17.0												
5690	5745	216	55.4												
5768	5828	184	60.3												
5859	5870	130	10.5												
6002	6019	150	17.2												
6119	6211	222	91.7												
6220	6359	270	138.5												
7998	7999	120	0.6												
8075	8099	137	23.5												
8566	8570	125	4.1												
8643	8664	154	20.3												
8909	8919	128	10.8												
10833	10844	126	10.3												
11181	11202	142	21.4												
13694	13694	120	0.2												
13695	13697	121	1.5												
14027	14031	125	3.4												
14051	14096	203	44.8												
14372	14380	128	8.0												
14442	14461	134	19.6												
14640	14652	127	12.0												
14765	14767	121	1.6												
15105	15106	121	0.8												
15121	15121	120	0.7												
15474	15484	138	10.1												
16301	16303	121	2.0												
16564	16565	121	1.4												

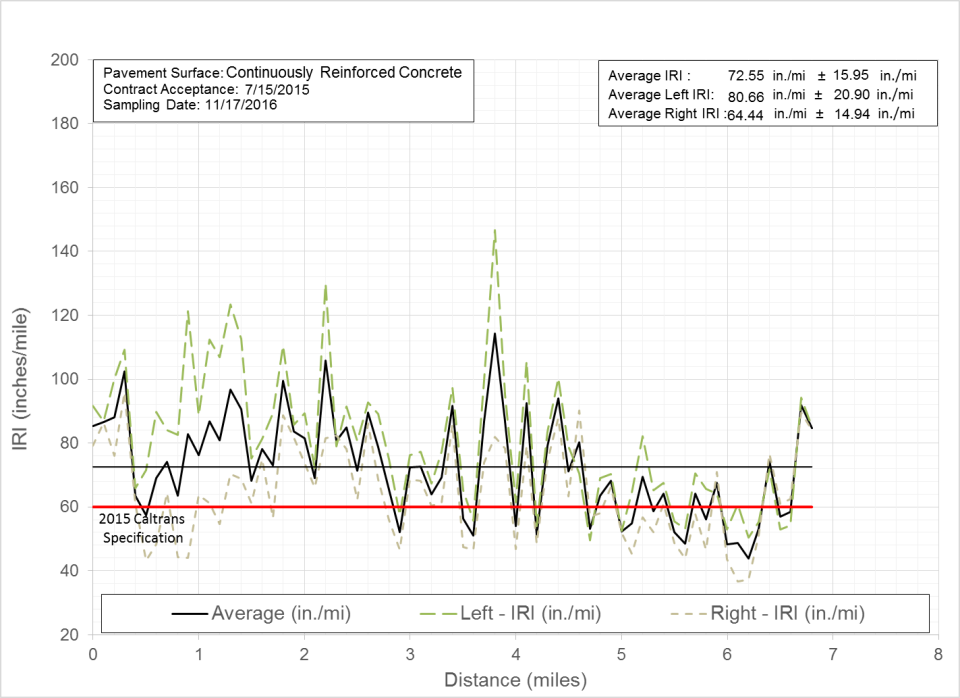

Figure A.37: Sis5N2PM51.2

Table A.37: Defective Segments from Sis5N2PM51.2

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	52	300	39.9	12542	12547	127	5.1	31325	31406	212	80.5				
185	193	136	8.0	12547	12547	120	0.4	33661	33680	131	19.4				
477	479	122	1.5	12645	12656	136	11.2	33734	33748	135	13.9				
671	690	150	18.8	12661	12664	124	3.0	34010	34070	236	59.5				
710	771	193	61.8	12727	12728	122	1.1	34071	34075	126	3.9				
905	906	122	1.6	12734	12744	137	10.3	34081	34090	141	9.2				
907	929	139	21.4	12745	12746	121	0.9	34140	34174	260	34.0				
994	996	127	2.2	12985	13006	146	21.0	34388	34413	174	24.9				
998	1018	134	19.8	13603	13608	123	4.5	34976	35002	190	26.0				
1318	1339	146	21.5	13611	13613	124	2.4	35490	35495	126	5.0				
1341	1354	146	13.4	13807	13827	151	19.7	35543	35568	167	24.5				
1401	1407	129	5.2	13929	13956	187	26.3	35571	35599	177	28.0				
1413	1454	147	40.9	13977	13994	161	17.3	35626	35632	125	6.1				
1492	1498	132	6.4	14004	14006	132	2.8	35661	35672	149	10.8				
1565	1580	153	14.9	14008	14010	123	2.1	35679	35682	129	3.8				
1600	1611	132	11.6	14011	14028	148	17.5	35887	35902	135	15.2				
1685	1700	131	14.7	14093	14099	131	5.9	36008	36010	125	2.1				
1900	1904	128	3.7	14101	14104	124	3.4								
1905	1908	122	2.8	14108	14111	125	3.8								
1929	1975	178	45.4	14422	14424	122	1.8								
1975	1976	121	0.7	14425	14426	120	1.0								
2021	2053	203	32.2	14430	14431	120	0.7								
2079	2087	134	7.2	14485	14498	136	13.0								
2224	2242	142	18.2	16009	16063	217	53.6								
2243	2245	123	2.0	16544	16565	159	20.7								
2258	2297	160	38.7	16874	16891	143	16.2								
5591	5592	120	0.4	16894	16899	137	4.5								
5592	5611	157	18.8	18325	18379	172	53.3								
5613	5614	122	1.0	18385	18387	122	1.9								
5647	5654	129	7.0	18389	18390	121	1.1								
6009	6014	132	5.3	18399	18411	134	11.7								
6891	6891	120	0.4	19585	19614	226	28.9								
7087	7088	121	1.1	19648	19664	147	15.5								
7219	7220	122	1.1	20176	20204	144	28.5								
7794	7819	148	25.1	20209	20212	121	2.4								
8233	8257	151	23.6	20271	20308	159	37.5								
8365	8375	130	10.3	20311	20323	137	11.2								
8378	8384	127	5.5	20620	20622	129	2.2								
8682	8702	137	20.3	20624	20645	167	21.2								
9531	9540	133	8.9	20721	20761	142	39.5								
9700	9708	134	8.4	20973	20974	122	1.3								
9709	9759	158	50.4	20988	20995	134	6.2								
9761	9765	126	3.5	21925	21953	179	27.6								
9795	9806	134	11.3	22052	22058	132	6.7								
10274	10280	132	6.1	22809	22814	124	5.3								
10295	10295	120	0.3	22869	22899	210	30.2								
10317	10374	194	57.0	22973	22998	160	24.7								
10768	10771	126	2.2	23069	23071	124	2.5								
10777	10792	135	14.7	23462	23468	132	5.5								
10989	11007	143	17.7	23537	23541	132	3.9								
11296	11298	123	1.6	23574	23574	120	0.7								
11302	11309	129	7.1	23582	23588	126	6.4								
11310	11320	143	10.1	23710	23727	138	16.6								
11727	11776	178	49.2	23831	23857	210	25.8								
11789	11798	148	9.0	24425	24456	329	30.6								
11802	11805	123	2.5	24490	24501	131	11.6								
11904	11906	125	2.4	24550	24558	126	7.8								
11911	11924	136	12.3	24565	24572	131	7.4								
12076	12078	122	2.3	24917	24922	128	4.7								
12128	12157	207	29.4	24928	24931	123	3.0								
12521	12535	150	14.2	26289	26324	145	35.8								
12539	12541	121	1.2	30285	30291	128	5.6								

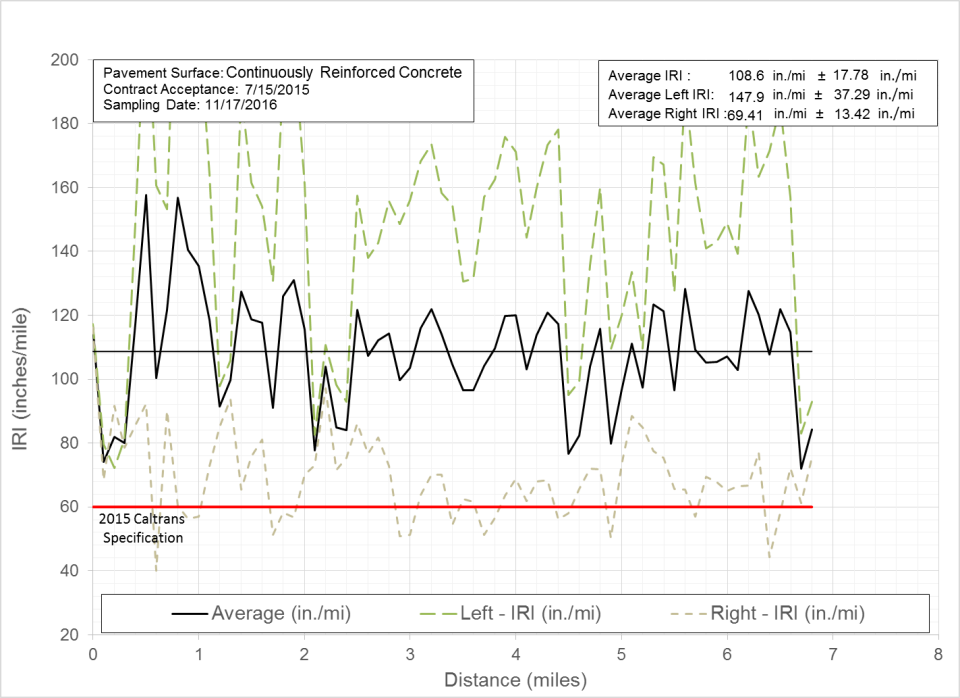

Figure A.38: Sis5S2PM58.1

Table A.38: Defective Segments from Sis5S2PM58.1

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
108	114	134	5.8	7189	7189	120	0.3	25253	25254	121	0.8				
114	117	123	2.4	7252	7268	138	16.4	25677	25684	128	7.0				
128	134	131	5.7	7272	7283	144	10.6	25830	25834	123	4.8				
166	258	308	91.6	7315	7332	134	17.2	25874	25878	128	3.9				
271	272	122	1.3	7374	7385	136	11.2	26510	26515	126	5.3				
296	344	303	47.7	7389	7394	135	4.9	26520	26526	127	6.3				
364	389	182	25.5	7797	7802	132	4.7	26848	26857	127	8.2				
965	983	156	17.3	7843	7847	125	4.3	26882	26887	131	4.9				
1134	1138	126	4.5	7928	7929	121	0.8	26892	26893	120	0.7				
1153	1155	124	2.0	7934	7948	142	13.2	27096	27117	150	21.6				
1224	1226	122	1.3	7952	7952	120	0.5	27318	27353	238	35.6				
1286	1308	136	21.4	7984	7985	121	0.8	27392	27397	125	5.2				
1315	1342	174	26.8	8092	8095	122	3.5	27401	27414	139	13.5				
1343	1344	122	1.6	8569	8595	178	25.8	27494	27495	120	0.5				
2065	2068	129	3.2	8717	8753	169	35.8	27498	27509	134	11.1				
2082	2083	121	1.0	8754	8758	126	3.1	27570	27573	126	3.3				
2086	2089	124	3.2	8869	8873	131	4.3	27758	27759	121	1.2				
2092	2103	135	10.9	9663	9686	150	23.5	28017	28019	124	2.2				
2182	2187	125	5.4	10752	10761	132	8.9	28024	28038	136	14.2				
2253	2266	137	12.4	10774	10777	127	3.0	28038	28039	120	0.5				
2268	2268	120	0.3	10812	10840	139	28.0	28308	28323	133	15.5				
2435	2438	125	3.0	10874	10885	139	11.3	28393	28395	124	2.1				
2440	2444	122	3.9	11087	11120	182	33.0	29139	29141	123	2.0				
2468	2476	129	8.2	11346	11353	130	7.3	30116	30119	122	2.2				
2479	2486	128	7.7	11357	11365	134	7.9	30652	30654	121	2.2				
2584	2586	122	2.1	11648	11658	133	10.8	30656	30662	127	6.1				
2701	2702	122	1.4	11664	11673	144	8.7	32545	32549	124	4.2				
2704	2726	146	22.4	11713	11714	120	0.5	33310	33312	121	1.8				
2761	2778	142	16.1	11715	11731	140	15.6	33400	33406	131	5.6				
2848	2927	208	79.0	11759	11781	146	21.9	33729	33754	155	25.3				
2928	2928	120	0.1	11880	11896	147	16.2	33783	33801	134	17.8				
2968	2994	168	26.3	11942	11969	180	26.8	35161	35163	123	2.6				
3566	3590	172	24.4	12072	12074	122	1.5	35166	35170	129	3.9				
3762	3776	145	14.0	12080	12105	175	25.3	36182	36192	133	9.8				
3842	3843	121	1.2	12146	12148	122	2.2								
3844	3862	162	18.5	12200	12207	132	7.1								
4008	4047	211	39.2	12708	12732	149	23.8								
4063	4065	126	2.7	13182	13183	120	0.7								
4067	4096	158	29.4	13374	13389	155	15.7								
4166	4187	144	20.4	13394	13394	120	0.3								
4441	4443	122	1.3	14000	14005	134	4.5								
4455	4459	125	4.5	14035	14047	132	11.5								
4803	4826	177	22.9	14180	14206	145	25.6								
5381	5399	131	17.9	14316	14334	144	18.4								
5946	5951	129	5.0	14355	14378	167	22.5								
6143	6147	124	3.9	14379	14381	123	1.5								
6315	6315	120	0.6	14570	14584	136	14.0								
6323	6324	121	1.1	14918	14929	141	10.5								
6372	6374	123	2.1	16847	16852	122	5.7								
6379	6384	127	5.7	17217	17219	121	1.1								
6505	6518	139	12.4	18173	18175	121	1.6								
6594	6595	121	0.9	20413	20418	126	5.0								
6748	6750	120	1.1	20640	20663	178	23.1								
6755	6765	157	10.4	21528	21536	128	7.5								
6777	6780	126	2.4	22106	22119	140	12.5								
6943	6968	169	25.4	22748	22749	122	1.3								
6990	6991	121	1.0	23096	23108	129	11.6								
6992	7021	162	29.5	24110	24118	125	7.9								
7129	7133	136	4.4	24119	24121	121	1.6								
7143	7145	123	1.6	24124	24128	126	3.9								
7146	7149	128	3.9	24369	24397	183	27.7								
7166	7167	121	1.0	24504	24507	123	3.7								

Jointed Plain Concrete Pavement Sections

San Diego 805 Northbound Lane 4 PM 5.5

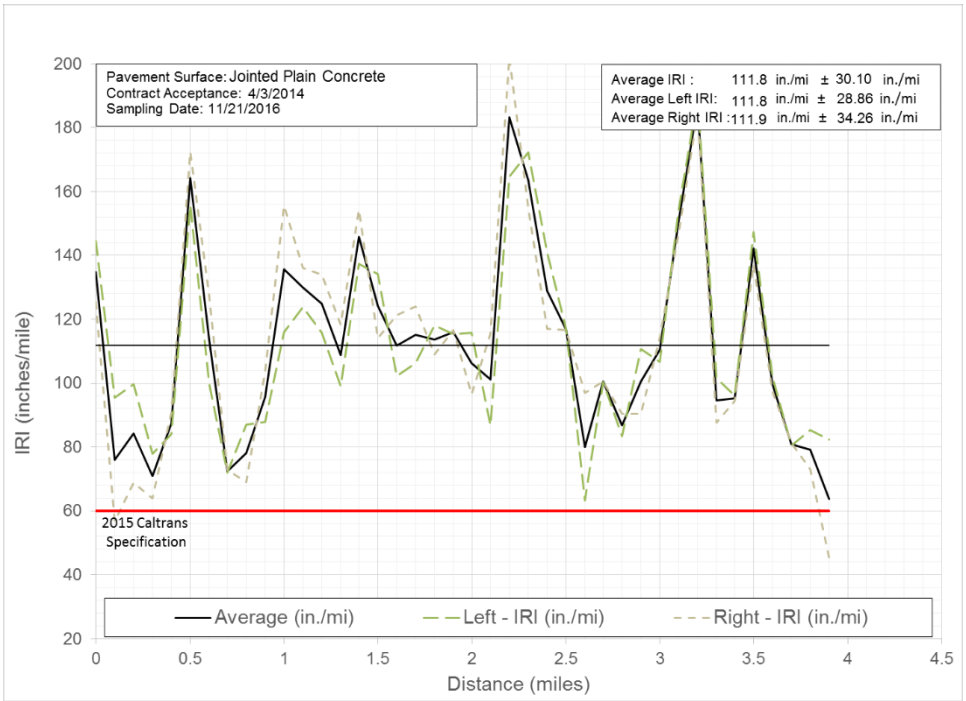

Figure A.39: SD805N4PM5.5

Table A.39: Defective Segments from SD805N4PM5.5

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	176	443	163.8	5205	5216	127	11.1	7085	7110	165	25.1	9913	9918	130	4.4
282	292	129	9.3	5223	5228	135	5.1	7135	7142	140	7.3	9926	9939	169	12.7
980	981	120	0.7	5240	5249	143	9.1	7148	7163	149	14.3	9940	9965	161	24.9
981	988	141	6.6	5251	5265	153	14.6	7163	7174	136	10.7	9975	9977	124	2.3
1223	1231	138	8.2	5269	5270	120	1.0	7197	7203	136	5.9	9989	10013	147	23.5
1330	1330	120	0.2	5286	5292	141	6.6	7210	7218	136	7.5	10020	10020	120	0.5
1330	1339	136	8.0	5298	5355	159	56.8	7259	7265	138	6.0	10067	10087	141	20.1
1625	1627	121	1.3	5363	5372	128	8.4	7274	7283	143	9.5	10098	10141	202	43.1
2323	2328	122	4.0	5383	5384	121	1.8	7338	7341	125	2.9	10158	10166	145	8.0
2486	2536	239	49.5	5393	5395	122	1.5	7401	7402	122	1.5	10177	10183	129	6.0
2537	2567	172	29.6	5410	5417	135	7.1	7414	7420	126	6.5	10218	10235	169	17.1
2686	2774	481	87.8	5419	5514	459	95.0	7427	7429	123	2.7	10240	10241	122	2.0
2790	2793	127	2.8	5533	5577	199	44.0	7444	7451	146	7.4	10260	10278	144	17.8
2794	2836	205	42.7	5606	5632	181	26.1	7455	7566	283	110.8	10278	10291	155	12.8
2866	2868	121	2.5	5637	5644	137	7.5	7568	7574	137	5.7	10301	10305	138	3.9
2868	2870	122	1.6	5653	5654	121	1.2	7580	7622	213	41.7	10318	10327	145	8.5
2872	2877	123	4.7	5656	5662	125	5.7	7647	7654	132	6.3	10329	10340	131	11.6
2880	2919	271	39.0	5665	5693	174	28.9	7673	7761	295	88.5	10342	10371	161	29.7
2927	2928	121	0.7	5699	5720	149	20.9	7764	7780	157	16.4	10376	10384	131	8.0
2929	2955	148	26.4	5730	5798	184	68.6	7781	7787	132	6.2	10412	10413	121	0.9
2963	3018	281	55.4	5827	5844	135	17.3	7831	7885	175	53.1	10427	10430	125	2.7
3020	3064	231	44.2	5874	5878	127	4.4	7891	7895	123	3.9	10502	10507	124	4.9
3067	3094	172	26.7	5879	5879	120	0.4	7896	7899	124	3.5	10530	10540	151	10.0
3110	3139	167	29.0	5887	5911	156	24.9	7904	7916	141	12.1	10545	10558	143	12.5
3146	3158	142	11.5	5914	5973	188	58.3	7917	7929	140	11.7	10563	10567	122	3.4
3160	3169	137	8.7	5979	5988	143	8.1	7934	7953	151	18.7	10596	10598	124	2.3
3177	3185	142	7.6	5991	6007	175	15.2	7953	7990	173	36.4	10613	10615	123	2.1
3192	3229	154	36.2	6010	6017	133	7.7	8018	8019	121	1.1	10656	10661	127	5.5
3238	3248	151	10.2	6026	6035	126	8.9	8020	8023	125	3.0	10673	10676	125	2.5
3253	3284	148	30.7	6039	6051	161	11.7	8090	8097	123	7.7	10717	10727	138	9.6
3285	3292	133	6.4	6052	6193	183	140.3	8149	8225	211	75.6	10938	10942	123	3.4
3301	3311	139	9.7	6198	6210	135	11.7	8225	8226	120	0.2	10944	10975	256	31.1
3319	3329	137	9.7	6218	6300	214	81.2	8275	8287	139	12.9	11110	11113	128	3.6
3335	3355	141	20.0	6306	6314	129	7.9	8307	8346	242	39.6	11169	11194	161	25.3
3368	3370	125	2.3	6356	6363	137	6.6	8483	8491	129	7.1	11215	11221	129	5.7
3370	3372	121	1.1	6369	6380	145	11.3	8658	8743	232	85.1	11232	11236	124	3.2
3380	3393	148	12.4	6416	6447	183	30.6	8746	8755	132	9.8	11236	11238	121	1.6
3398	3404	126	6.9	6448	6487	151	39.6	8768	8817	176	49.2	11294	11331	174	37.0
3408	3409	122	1.1	6542	6550	149	7.5	8855	8863	142	8.0	11334	11344	139	10.5
3411	3420	139	9.6	6556	6629	237	72.2	8865	8987	178	121.8	11355	11382	149	26.5
3428	3435	134	7.1	6632	6690	190	57.7	8990	9034	188	43.7	11383	11386	126	2.9
3446	3482	159	36.5	6697	6702	130	5.5	9041	9081	190	39.7	11399	11407	136	7.8
3487	3555	213	67.3	6711	6712	121	0.7	9083	9084	120	0.3	11413	11428	167	15.2
3566	3571	130	4.9	6713	6720	129	7.1	9106	9111	133	5.1	11428	11441	142	13.3
3583	3590	131	6.9	6724	6735	162	11.3	9122	9130	131	8.2	11475	11486	148	10.9
3596	3635	158	39.0	6743	6743	120	0.4	9135	9157	138	22.5	11492	11496	126	3.9
3645	3648	126	3.3	6744	6752	145	8.3	9158	9159	120	1.0	11541	11579	173	38.3
3659	3663	123	3.1	6757	6782	145	25.3	9163	9174	148	10.9	11586	11592	129	5.2
3751	3755	128	3.9	6786	6796	141	9.3	9185	9190	125	5.7	11602	11640	213	37.4
3790	3795	132	5.8	6806	6815	145	8.1	9202	9230	157	27.7	11644	11737	493	92.7
4927	4952	170	25.5	6820	6850	179	30.3	9264	9284	141	20.3	11769	11771	123	2.1
4967	4979	156	12.4	6855	6862	133	6.8	9312	9312	120	0.2	11776	11789	138	13.1
4984	5028	176	43.6	6865	6881	142	16.5	9325	9336	154	11.2	11800	11802	125	2.5
5031	5042	162	11.2	6888	6895	143	7.1	9369	9396	158	27.1	11804	11820	139	15.4
5045	5059	164	14.1	6902	6913	143	10.9	9398	9458	206	59.5	11821	11831	137	9.9
5098	5100	126	2.8	6934	6936	122	2.5	9540	9544	126	3.9	11832	11859	162	27.2
5102	5102	120	0.2	6943	6976	187	33.1	9635	9674	185	39.1	11862	11866	123	4.3
5115	5117	121	1.5	6979	6986	141	7.5	9679	9685	131	5.9	11892	12143	472	250.6
5147	5149	121	1.6	6990	7036	194	46.6	9702	9715	142	13.0	12144	12307	519	162.9
5160	5166	135	6.0	7050	7055	129	4.8	9789	9794	129	5.1	12335	12349	134	14.4
5177	5184	135	6.6	7056	7061	129	5.8	9870	9870	120	0.3	12353	12358	124	5.0
5192	5203	128	11.3	7069	7080	147	11.4	9872	9875	125	2.9	12403	12408	125	4.5

Table A.39: Defective Segments from SD805N4PM5.5 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
12458	12488	170	29.7	14708	14724	148	16.2	18441	18527	631	86.8				
12490	12497	134	7.8	14727	14734	142	7.4	18532	18549	140	16.7				
12507	12534	170	27.1	14823	14828	129	4.5	18551	18552	121	1.5				
12537	12551	136	13.7	14925	14932	132	7.1	18553	18559	136	6.7				
12571	12571	120	0.2	14986	14996	133	9.8	18560	18585	165	25.8				
12631	12635	133	3.9	15000	15015	132	15.3	18605	18607	121	1.9				
12646	12657	162	10.8	15017	15022	129	4.9	18609	18623	149	14.1				
12661	12673	150	12.8	15067	15074	127	7.1	18623	18626	125	2.3				
12690	12701	145	11.0	15079	15087	141	8.6	18687	18689	122	2.3				
12707	12717	142	10.4	15110	15134	140	23.6	18693	18697	125	3.9				
12723	12735	134	12.1	15252	15258	130	5.9	18698	18798	456	99.9				
12772	12774	123	1.9	15438	15460	142	21.8	18800	18802	124	3.0				
12819	12852	175	33.0	15460	15463	129	3.3	18805	18824	160	18.9				
12878	12888	130	10.1	15482	15486	126	4.3	18883	18885	122	1.6				
12894	12901	135	7.0	15499	15505	128	6.6	19314	19340	222	26.4				
12962	12964	124	2.1	15511	15519	137	8.0	19351	19352	123	1.3				
13017	13050	242	32.4	15698	15721	156	23.6	19362	19370	128	7.7				
13065	13070	131	4.9	15744	15755	134	10.6	19406	19413	128	6.4				
13082	13085	125	3.3	15777	15779	122	2.0	19414	19427	137	12.3				
13086	13088	123	2.0	15791	15800	146	8.9	19442	19447	133	5.3				
13097	13112	135	15.6	15806	15830	178	24.4	19449	19468	157	19.4				
13130	13184	205	53.6	15932	15970	168	37.6	19471	19476	135	5.2				
13187	13191	140	4.4	15976	15984	153	8.5	19479	19481	122	1.7				
13206	13212	137	6.4	15991	16023	182	32.0	19482	19509	143	27.4				
13234	13240	134	6.0	16040	16041	123	1.6	19510	19543	223	32.5				
13252	13255	127	3.3	16057	16065	147	8.2	19637	19644	134	7.8				
13282	13321	165	38.8	16066	16095	191	29.0	19660	19689	191	28.6				
13324	13338	163	13.1	16099	16103	132	4.7	19693	19696	126	2.9				
13344	13354	132	10.6	16117	16125	148	7.5	19768	19770	122	2.5				
13358	13416	178	58.0	16127	16147	150	19.8								
13435	13439	129	3.6	16186	16187	123	1.5								
13449	13460	148	11.1	16194	16201	130	6.9								
13466	13471	130	5.3	16206	16211	122	5.0								
13498	13503	127	4.3	16224	16250	160	25.8								
13510	13549	153	38.7	16265	16266	124	1.4								
13561	13561	120	0.2	16286	16290	134	3.8								
13578	13583	128	4.4	16290	16291	121	0.7								
13634	13661	165	26.3	16298	16328	170	29.9								
13761	13771	145	9.5	16349	16354	127	5.7								
13776	13786	142	9.5	16366	16369	129	3.3								
13800	13802	123	1.7	16380	16390	133	10.4								
13808	13815	133	6.7	16413	16415	121	2.1								
13848	13852	124	3.6	16419	16544	479	125.2								
14035	14036	121	1.3	16555	16558	130	3.0								
14074	14080	129	6.3	16590	16679	201	88.8								
14134	14145	139	11.2	16730	16732	124	2.4								
14146	14158	143	12.0	16782	16816	197	33.2								
14164	14167	129	3.6	16879	16887	147	8.0								
14253	14270	159	17.1	16890	16892	123	2.7								
14275	14277	124	2.3	16895	16926	154	30.7								
14322	14349	170	26.8	16927	16931	137	4.4								
14350	14352	122	1.6	16932	16937	125	5.2								
14354	14373	146	18.9	16943	17055	544	111.2								
14385	14395	151	10.6	17075	17128	207	53.2								
14407	14408	121	1.0	17138	17165	177	26.8								
14469	14471	123	1.6	17166	17172	131	6.9								
14491	14494	126	3.0	17309	17312	125	3.0								
14582	14589	129	6.9	17313	17407	483	94.0								
14595	14599	124	3.4	17475	17499	161	24.6								
14632	14638	124	5.8	17558	17591	187	32.6								
14697	14701	132	3.4	17605	17644	321	39.3								

San Diego 805 Southbound Lane 4 PM 9.4

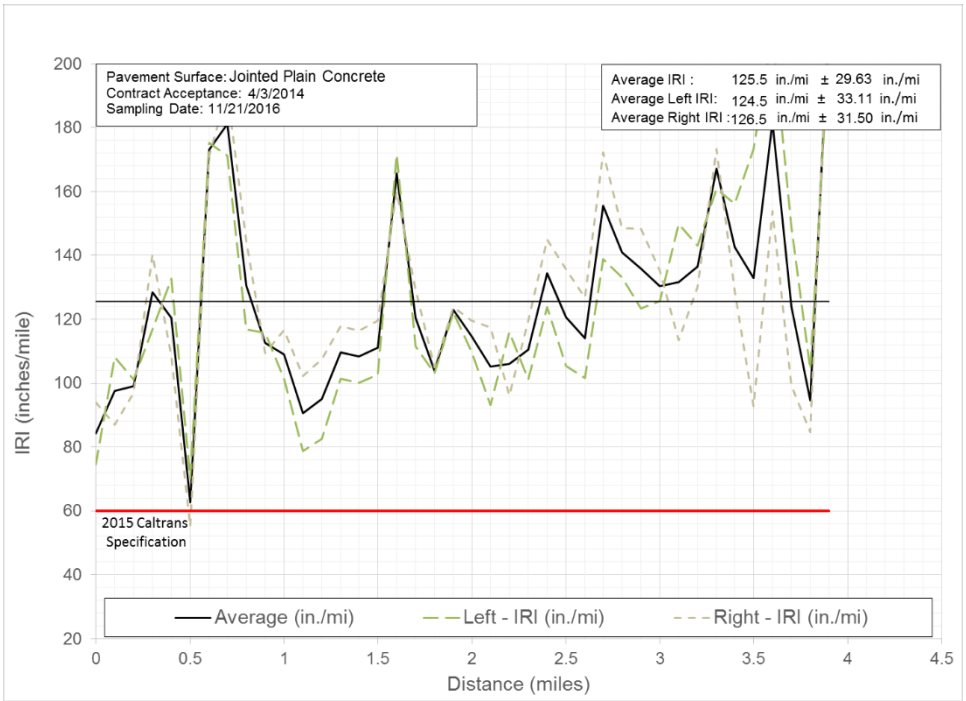

Figure A.40: SD805S5PM9.4

Table A.40: Defective Segments from SD805S5PM9.4

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
62	65	123	3.2	4461	4471	138	10.3	6737	6739	127	2.5	8367	8373	140	5.6
296	296	120	0.4	4473	4479	128	6.2	6750	6758	148	7.5	8383	8418	149	34.8
300	301	123	1.8	4509	4512	127	2.8	6794	6847	167	53.6	8444	8472	164	28.1
306	326	141	19.1	4517	4518	120	1.0	6861	6863	127	2.2	8473	8485	156	12.0
340	344	128	4.9	4522	4529	136	7.3	6868	6904	197	35.4	8492	8534	240	42.1
356	364	144	8.0	4647	4655	141	8.4	6938	6939	120	0.9	8536	8540	136	3.5
369	372	125	3.0	4660	4664	127	3.8	6940	6948	128	8.3	8555	8654	272	99.8
373	374	120	0.5	4706	4734	189	27.9	7001	7004	127	3.3	8664	8674	142	9.7
480	486	127	5.7	4771	4779	155	8.6	7017	7023	128	5.7	8678	8692	169	14.6
496	499	122	2.9	4780	4781	121	1.2	7060	7068	150	8.1	8695	8806	410	110.2
512	514	121	1.8	4784	4796	132	11.9	7074	7079	125	4.6	8816	8840	173	24.8
545	548	126	3.4	4816	4858	185	42.3	7124	7129	125	4.7	8929	8933	126	3.8
726	760	169	33.3	4895	4905	143	10.6	7163	7174	155	11.7	9013	9022	130	8.5
975	995	149	20.3	4908	4914	133	6.2	7185	7187	127	2.3	9023	9154	422	131.6
1041	1043	123	2.1	4956	4975	160	19.1	7233	7234	122	1.3	9160	9173	145	13.9
1365	1401	249	35.9	5019	5026	129	6.8	7239	7281	200	42.7	9296	9297	121	0.7
1431	1515	204	83.8	5066	5072	130	6.3	7291	7298	140	6.8	9369	9372	122	3.3
1518	1528	134	10.1	5073	5091	156	17.1	7308	7320	146	11.7	9420	9422	125	2.5
1530	1534	126	3.8	5143	5179	160	36.6	7322	7323	120	0.6	9484	9485	121	0.7
1539	1543	131	3.9	5186	5193	144	6.8	7324	7362	173	38.1	9495	9518	143	22.5
1545	1581	201	35.8	5203	5212	134	8.7	7371	7378	147	7.1	9525	9531	145	6.2
1584	1612	162	28.4	5217	5224	130	7.1	7383	7397	152	14.4	9544	9549	123	5.1
1616	1632	144	15.9	5253	5254	122	1.2	7435	7440	131	5.2	9667	9678	165	11.9
1887	1913	161	26.1	5267	5274	126	6.5	7455	7460	128	5.1	9681	9685	125	4.1
1915	1922	134	7.0	5281	5282	120	1.1	7476	7506	168	29.4	9734	9735	124	1.7
1923	1925	121	1.6	5283	5284	120	0.7	7507	7520	144	13.2	9742	9810	201	68.2
1931	1934	124	3.2	5328	5338	146	10.2	7526	7528	121	2.4	9887	9895	137	8.5
1940	2056	685	116.6	5351	5353	122	1.2	7530	7531	120	0.7	9896	9918	155	21.7
2144	2150	130	5.2	5391	5397	138	5.8	7542	7546	129	3.8	9920	9924	132	3.9
2152	2156	124	3.9	5402	5411	129	8.9	7558	7563	123	5.3	9982	9989	141	6.5
2232	2334	450	102.2	5414	5415	121	1.3	7602	7608	129	5.5	9994	10007	135	13.1
2359	2371	150	12.1	5437	5440	126	2.3	7608	7626	147	17.3	10015	10018	124	3.2
2374	2381	137	6.8	5449	5478	164	28.7	7638	7665	163	26.7	10025	10079	187	53.8
3143	3208	763	64.3	5499	5532	182	32.6	7669	7690	144	20.8	10087	10093	141	5.9
3211	3273	204	62.1	5574	5604	175	29.4	7692	7692	120	0.3	10101	10138	171	36.7
3282	3285	122	2.7	5620	5627	140	7.2	7695	7698	121	2.5	10149	10158	146	9.0
3288	3343	254	55.5	5633	5720	208	87.4	7746	7747	121	1.1	10162	10189	166	27.2
3358	3359	121	1.0	5762	5769	137	6.7	7798	7832	248	34.0	10254	10254	120	0.4
3360	3361	122	1.6	5771	5772	121	1.4	7854	7863	145	9.2	10291	10299	151	8.3
3376	3379	131	3.1	5774	5784	131	10.1	7868	7880	154	11.7	10303	10328	150	25.1
3382	3426	256	43.6	5824	5829	126	4.8	7880	7893	132	12.8	10335	10365	186	29.9
3443	3510	448	66.1	5880	5909	181	28.8	7935	7937	126	2.2	10367	10378	130	11.6
3534	3542	125	7.4	6010	6015	128	5.2	7944	7945	120	0.5	10398	10405	143	7.0
3545	3546	120	0.7	6027	6034	128	6.8	7946	7949	123	2.7	10409	10426	184	17.6
3547	3552	126	4.3	6071	6079	149	8.0	7976	7980	123	4.1	10431	10435	123	3.5
3642	3647	128	5.1	6091	6098	130	6.8	7990	8000	147	10.0	10494	10495	121	0.8
3655	3668	144	12.7	6099	6121	153	22.5	8005	8010	126	5.6	10507	10599	254	92.5
3668	3670	121	1.7	6180	6211	186	31.2	8038	8043	139	5.7	10630	10657	179	26.2
3671	3679	136	8.3	6257	6261	126	4.5	8049	8092	180	42.8	10657	10719	200	61.9
3705	3710	127	5.0	6320	6327	140	7.1	8098	8105	155	7.3	10722	10724	126	2.0
3721	3728	137	6.7	6330	6349	164	18.7	8116	8155	194	38.7	10740	10747	145	7.1
3737	3976	598	239.7	6381	6388	143	7.1	8182	8187	133	4.3	10750	10782	193	32.3
3978	4154	306	175.9	6402	6404	121	1.8	8192	8207	143	14.8	10825	10825	120	0.5
4156	4158	128	2.5	6404	6410	126	5.9	8208	8209	122	1.3	10865	10873	133	7.5
4164	4181	141	17.6	6425	6430	128	5.2	8225	8229	128	3.9	10876	10917	161	40.3
4219	4221	122	1.4	6436	6460	183	24.1	8242	8248	135	6.2	10929	10934	129	4.9
4229	4231	123	1.5	6489	6493	130	3.4	8254	8271	141	16.4	11071	11078	132	6.4
4233	4295	198	61.8	6504	6511	137	7.1	8304	8311	151	7.4	11081	11103	159	21.7
4296	4398	507	101.8	6519	6520	121	1.2	8315	8315	120	0.2	11115	11172	218	56.8
4400	4406	135	5.8	6566	6572	127	5.8	8316	8342	152	26.3	11178	11185	138	6.3
4407	4419	142	11.8	6632	6634	128	2.7	8348	8356	147	8.7	11331	11366	214	35.2
4424	4428	125	3.9	6690	6695	125	5.7	8357	8358	121	1.0	11375	11423	176	48.7

Table A.40: Defective Segments from SD805S5PM9.4 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
11439	11440	123	1.3	13898	13911	156	13.5	16369	16371	123	1.6	19088	19201	277	113.0
11456	11480	162	24.9	13916	13952	180	35.4	16374	16379	124	5.0	19206	19208	122	1.2
11581	11668	219	87.1	13980	13986	134	5.8	16396	16397	120	0.4	19220	19259	225	38.6
11710	11712	123	2.8	13992	14047	195	54.1	16410	16417	138	6.4	19267	19322	350	54.8
11715	11732	150	17.1	14063	14066	127	3.0	16422	16461	166	39.5	19330	19331	121	1.1
11768	11773	125	4.7	14072	14095	152	23.5	16485	16497	138	11.2	19346	19353	133	7.2
11816	11817	123	1.6	14104	14109	128	4.8	16529	16538	123	9.5	19357	19368	153	11.6
11822	11853	186	30.2	14122	14128	127	6.3	16562	16622	234	59.5	19373	19384	152	11.5
12061	12067	131	5.2	14136	14145	131	9.0	16751	16759	141	7.5	19390	19423	213	32.6
12098	12103	126	4.9	14146	14158	134	11.3	16809	16819	126	10.6	19453	19459	134	6.2
12160	12192	384	31.6	14165	14219	165	53.8	16855	16926	234	70.8	19466	19495	188	29.1
12222	12238	160	15.2	14219	14219	120	0.2	16926	16965	211	38.6	19497	19508	162	10.5
12264	12267	125	3.9	14228	14233	135	4.8	16981	16984	125	2.8	19515	19564	223	49.0
12320	12328	132	7.6	14249	14252	124	2.7	16985	17030	200	44.6	19621	19635	136	14.7
12335	12340	128	4.8	14269	14334	363	64.7	17035	17037	122	2.1	19663	19679	154	16.1
12371	12378	136	7.1	14340	14408	241	67.4	17038	17046	130	8.0	19682	19688	134	5.9
12443	12460	151	16.7	14432	14502	298	69.7	17051	17056	127	5.3	19718	19745	191	27.6
12463	12468	125	5.0	14538	14644	218	105.8	17063	17111	174	48.3	19921	19925	125	4.6
12477	12492	149	15.1	14645	14656	138	11.2	17155	17162	126	6.6	19936	19939	125	2.7
12517	12545	158	28.5	14665	14672	147	7.2	17165	17173	138	8.7	20107	20109	123	2.4
12550	12554	132	4.3	14673	14761	235	88.4	17212	17282	191	69.9	20182	20187	134	5.0
12576	12577	121	0.7	14762	14762	120	0.3	17290	17319	170	28.3	20201	20206	146	5.7
12579	12588	129	8.8	14770	14776	137	6.6	17381	17385	124	3.9	20247	20249	122	1.1
12591	12599	131	7.8	14788	14796	152	7.7	17395	17403	148	7.5	20361	20362	120	0.7
12611	12654	250	43.4	14803	14807	124	4.3	17415	17420	124	5.3	20366	20377	155	11.8
12692	12698	143	6.8	14810	14813	124	2.2	17427	17452	153	25.3	20615	20626	150	10.7
12704	12819	193	114.8	14833	14839	136	6.6	17457	17474	148	16.9	20629	20636	131	6.7
12828	12852	142	24.4	14850	14891	196	41.6	17474	17502	171	27.9	20657	20776	412	119.9
12859	12885	163	25.5	14894	14953	240	59.3	17502	17579	198	76.7	20778	20853	661	74.1
12909	12915	129	6.1	14975	15028	294	53.9	17585	17612	172	26.7	20856	20857	122	0.6
12918	12961	199	42.6	15037	15078	199	40.8	17649	17655	131	6.5				
12963	12977	152	13.5	15081	15107	168	25.7	17657	17702	237	45.6				
12982	13020	178	38.6	15144	15192	290	47.2	17713	17715	120	1.5				
13026	13033	128	7.4	15207	15213	135	5.6	17726	17739	153	12.3				
13063	13150	263	87.4	15238	15255	140	16.7	17739	17873	407	133.4				
13155	13182	183	27.1	15269	15310	202	40.8	17874	17878	134	3.9				
13187	13192	133	4.7	15364	15367	122	2.5	17879	17972	225	92.9				
13200	13211	130	11.4	15430	15451	154	21.8	17974	17976	126	2.1				
13232	13239	128	6.6	15458	15513	203	55.4	17991	17999	147	7.9				
13240	13253	132	12.8	15544	15548	126	4.7	18005	18057	384	52.4				
13254	13255	122	1.0	15567	15700	568	133.3	18058	18112	205	53.1				
13263	13265	126	2.8	15750	15764	131	13.5	18115	18119	137	3.9				
13274	13287	161	12.7	15765	15786	163	21.0	18175	18193	164	18.5				
13290	13393	241	102.4	15804	15806	123	2.7	18226	18267	196	40.8				
13418	13428	146	9.8	15846	15858	151	11.6	18279	18283	130	3.7				
13434	13465	195	30.4	15859	15860	120	0.8	18291	18300	130	9.0				
13466	13473	130	7.0	15862	15874	140	12.1	18300	18301	121	1.0				
13475	13507	180	32.1	15876	15883	131	7.6	18428	18439	142	10.6				
13543	13585	257	42.5	15894	15942	214	48.0	18466	18468	122	1.1				
13626	13628	124	2.1	15955	16009	256	53.5	18477	18486	130	9.0				
13636	13646	130	10.3	16015	16022	128	6.5	18488	18490	126	2.1				
13649	13650	122	1.2	16035	16035	120	0.2	18491	18497	124	5.3				
13652	13659	131	6.9	16037	16041	128	3.7	18591	18593	124	2.1				
13667	13696	179	29.0	16043	16059	158	16.3	18604	18605	120	0.9				
13697	13723	152	25.4	16114	16120	134	6.4	18745	18746	121	1.3				
13730	13736	147	6.1	16127	16138	139	11.1	18801	18809	132	7.6				
13741	13773	217	32.0	16161	16203	168	41.9	18820	18823	124	2.5				
13792	13798	142	6.0	16203	16214	167	10.3	18851	18864	138	12.7				
13808	13817	150	9.6	16223	16293	256	69.8	18929	18948	141	18.4				
13822	13847	163	25.2	16297	16323	149	25.8	19041	19043	127	2.5				
13855	13860	129	4.9	16330	16331	120	0.5	19048	19057	139	9.7				

Contra Costa 680 Northbound Lane 4 PM 4.0

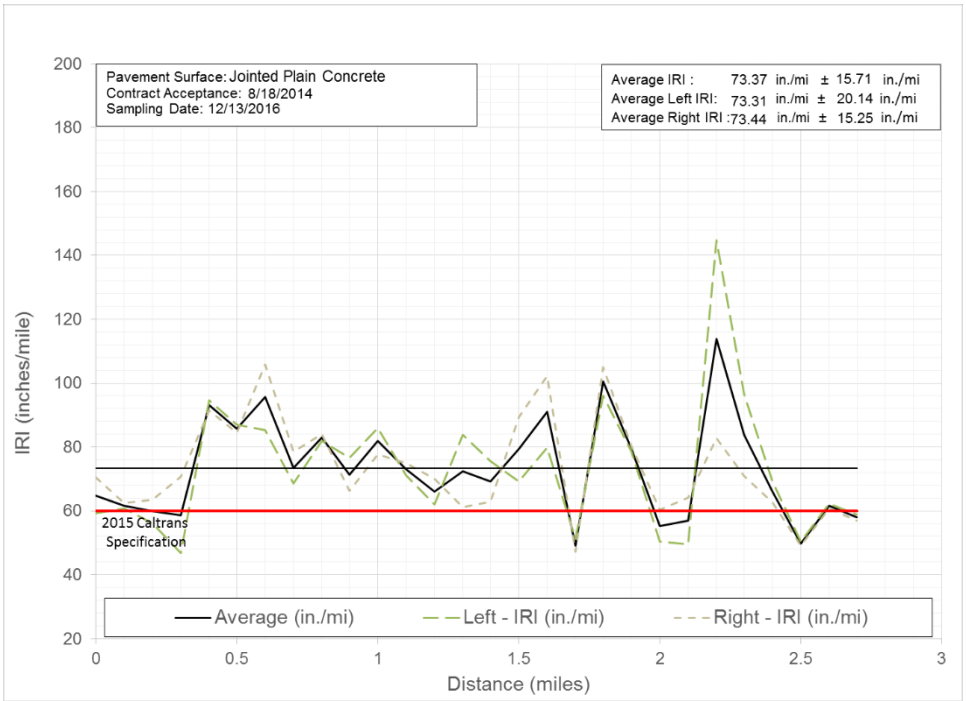

Figure A.41: CC680N4PM4.0

Table A.41: Defective Segments from CC680N4PM4.0

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
1736	1737	123	1.5	9923	9934	133	11.1								
1743	1750	140	6.3	9942	9943	120	0.7								
1756	1760	132	4.0	9961	9989	211	27.9								
2272	2297	167	24.9	10007	10033	191	25.9								
2410	2418	132	7.2	10168	10205	320	37.2								
2421	2443	149	22.3	10434	10474	215	39.8								
2488	2542	250	55.0	10832	10852	149	19.8								
2724	2727	126	2.5	11495	11531	181	35.0								
2810	2810	120	0.2	11553	11564	145	10.8								
2811	2835	157	23.9	11669	11676	150	7.3								
2926	2944	145	17.4	11756	11759	124	3.0								
3138	3165	154	27.5	11852	11854	122	1.9								
3172	3206	216	34.4	12033	12047	140	14.7								
3249	3292	195	43.1	12136	12139	124	2.9								
3407	3508	200	101.5	12145	12153	134	8.2								
3527	3528	120	0.7	12346	12370	154	24.0								
3528	3534	128	5.7	12445	12470	166	24.7								
3731	3741	133	10.0	12692	12720	310	27.9								
3925	3945	146	19.4	14104	14127	162	23.3								
3964	3970	130	6.7	14300	14327	192	26.3								
3972	3980	127	8.1												
3995	4006	134	10.5												
4395	4435	209	39.7												
4501	4546	224	44.8												
4636	4646	131	10.0												
4648	4651	124	2.5												
4656	4656	120	0.5												
4801	4840	227	39.4												
5371	5372	123	1.4												
5603	5638	154	35.0												
5639	5656	141	17.1												
5754	5757	128	3.0												
5853	5878	202	24.9												
5897	5909	128	12.1												
6455	6455	120	0.3												
6456	6463	127	7.1												
6469	6475	134	5.4												
6497	6521	154	24.8												
7218	7221	124	3.0												
7225	7227	120	2.3												
7251	7252	120	1.0												
7256	7273	141	17.3												
7801	7832	198	31.0												
7854	7884	136	29.6												
7886	7899	141	13.5												
7922	7958	252	36.0												
8131	8163	208	31.7												
8173	8176	127	2.8												
8177	8202	164	24.5												
8275	8279	127	4.3												
8419	8529	217	109.3												
8538	8540	123	2.2												
8560	8601	540	41.4												
9654	9657	126	3.6												
9662	9664	125	2.1												
9694	9701	132	6.9												
9702	9705	126	3.1												
9738	9754	136	16.0												
9761	9763	123	1.2												
9821	9858	222	37.2												
9860	9866	133	5.2												

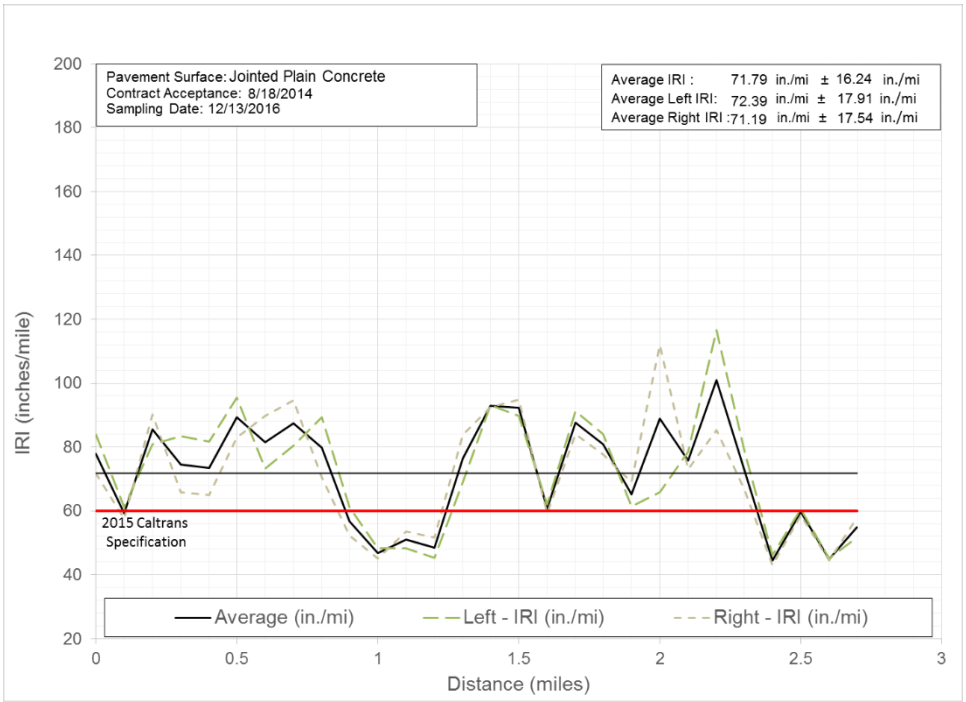

Figure A.42: CC680S4PM6.8

Table A.42: Defective Segments from CC680S4PM6.8

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
246	252	131	6.0	10697	10737	371	40.5								
279	292	142	13.0	10809	10839	270	30.5								
300	303	123	3.3	11189	11212	144	22.4								
304	346	199	41.1	11546	11560	138	14.2								
668	696	219	27.9	11801	11811	132	10.2								
1197	1232	385	34.9	11836	11856	148	19.8								
1234	1253	147	18.1	11975	11981	133	6.3								
1312	1322	137	10.1	11987	11993	124	6.4								
1322	1324	121	1.5	12018	12026	134	8.6								
1438	1450	146	12.1	12157	12158	125	1.3								
1554	1579	200	24.5	12224	12227	125	2.5								
1909	1915	125	5.8	12233	12241	128	7.9								
2211	2213	122	1.6	12281	12291	130	9.8								
2215	2222	134	6.6	12322	12326	124	4.5								
2286	2287	122	1.1	13334	13363	284	28.3								
2292	2295	128	3.5												
2307	2307	120	0.2												
2324	2338	141	13.7												
2375	2386	137	10.8												
2929	2991	293	62.7												
3299	3301	122	2.1												
3436	3518	308	82.7												
3679	3723	154	43.6												
3752	3780	161	27.8												
3783	3787	131	4.4												
3870	3936	271	66.6												
4011	4024	143	12.5												
4030	4034	124	3.5												
4553	4556	126	2.9												
4605	4608	123	2.1												
4615	4619	136	3.9												
4750	4796	178	45.8												
4927	4931	123	3.0												
6168	6189	142	21.0												
7180	7232	257	51.3												
7293	7295	123	2.1												
7304	7320	151	16.3												
7538	7563	176	24.6												
7753	7765	131	12.7												
7851	7854	126	2.9												
7856	7887	187	30.4												
7894	7895	121	1.1												
7904	7906	123	1.6												
7913	7915	125	2.5												
7918	7919	123	1.6												
7922	7928	128	5.6												
7990	8011	168	21.5												
8194	8235	173	40.9												
8237	8238	121	1.1												
8305	8312	126	6.9												
8327	8342	136	15.5												
8991	8999	127	8.5												
9084	9116	166	32.6												
9168	9169	120	0.2												
9188	9191	123	2.9												
9398	9400	124	2.0												
9909	9959	275	50.3												
9966	9982	138	16.3												
10268	10297	240	29.0												
10531	10547	131	15.2												
10615	10649	603	34.9												

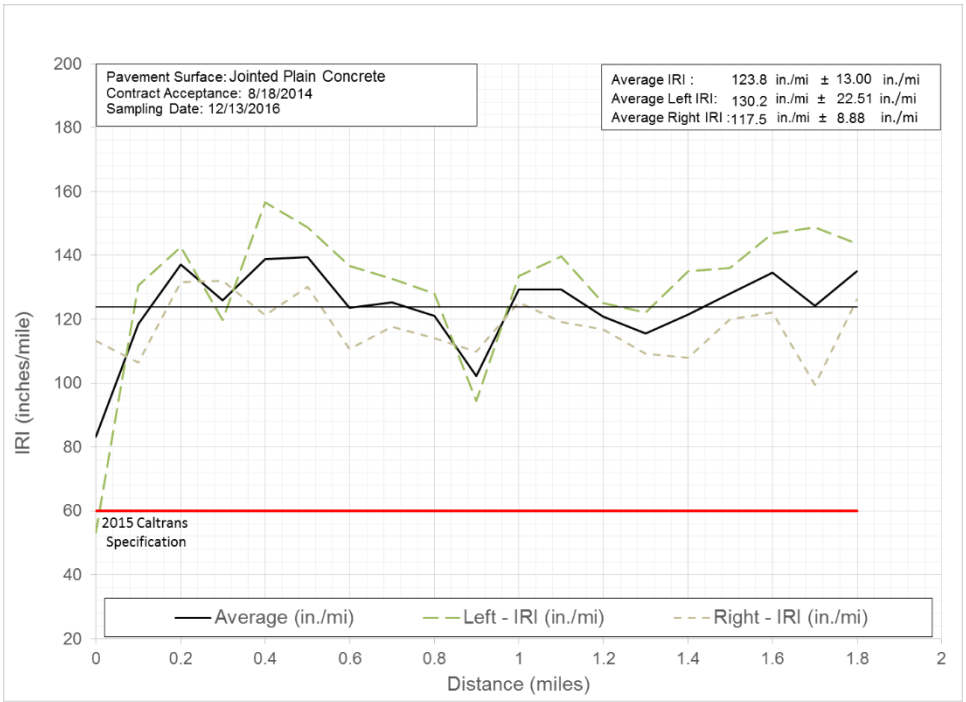

Figure A.43: CC680N5PM4.4

Table A.43: Defective Segments from CC680N5PM4.4

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
79	106	168	26.6	2886	2893	127	6.7	5683	5730	221	47.0	8472	8490	134	17.4
188	211	150	23.8	2895	2896	124	1.7	5733	5766	197	33.5	8525	8548	133	23.7
237	241	129	4.3	2898	2899	121	1.6	5771	5773	123	2.3	8563	8589	165	26.7
244	247	124	3.0	2956	3080	240	124.6	5812	5818	129	6.9	8595	8624	153	28.7
249	258	126	8.6	3118	3119	120	0.6	5822	5882	207	60.1	8685	8701	133	15.9
267	267	121	0.8	3120	3177	304	57.4	5893	5923	168	29.6	8703	8758	192	55.2
273	314	187	40.3	3179	3219	175	39.5	5950	5973	170	23.7	8799	8845	183	46.4
315	329	142	13.9	3250	3274	161	24.2	6007	6014	125	6.7	8848	8877	171	29.2
393	394	121	0.8	3302	3309	129	7.8	6019	6029	144	10.1	8885	8890	129	4.5
395	405	131	10.1	3310	3311	121	0.8	6036	6045	127	8.7	8895	8898	136	3.4
452	494	212	41.5	3322	3362	177	40.5	6052	6083	166	31.2	8904	8933	143	28.6
503	512	134	8.5	3389	3415	168	25.8	6085	6091	130	6.0	8933	8943	130	9.7
527	530	128	2.6	3458	3462	126	3.9	6092	6093	121	1.2	9016	9038	156	22.4
624	654	150	30.3	3470	3471	120	0.7	6106	6180	208	74.3	9054	9087	187	32.2
720	733	138	12.4	3472	3478	133	5.6	6275	6298	148	23.5	9148	9151	124	3.0
741	746	131	5.1	3532	3557	150	24.4	6401	6405	134	4.2	9168	9172	127	4.3
748	748	121	0.7	3569	3577	143	7.3	6434	6447	136	13.7	9182	9185	121	3.0
749	788	168	38.5	3578	3578	120	0.7	6474	6498	152	23.2	9186	9191	127	4.6
826	843	141	17.4	3579	3582	126	3.0	6536	6560	148	24.2	9209	9236	179	27.1
929	931	122	1.9	3583	3584	121	0.8	6605	6630	157	25.0	9242	9245	126	3.4
981	985	123	4.2	3696	3698	123	1.7	6663	6671	140	8.0	9533	9557	140	24.4
1006	1061	196	55.4	3757	3758	120	1.0	6674	6716	189	42.2	9595	9604	135	8.4
1062	1062	120	0.4	3760	3762	122	2.1	6759	6796	193	36.6	9605	9606	120	0.6
1093	1127	182	34.2	3794	3801	129	6.4	6799	6833	146	33.8	9606	9608	121	1.9
1141	1203	200	61.7	3802	3809	132	7.1	6834	6839	124	4.2	9609	9649	183	39.7
1244	1278	560	34.0	3811	3814	131	3.3	6841	6855	142	13.8				
1334	1336	123	1.7	3826	3895	237	69.6	6938	6940	122	2.2				
1344	1351	126	6.4	3897	3902	128	4.8	6955	7018	213	63.0				
1355	1359	127	4.4	4020	4026	129	5.8	7021	7053	148	32.0				
1374	1423	215	48.7	4030	4037	128	7.1	7142	7168	153	26.0				
1525	1568	163	43.6	4050	4054	123	4.0	7201	7202	121	1.3				
1587	1616	168	29.0	4058	4070	146	11.8	7236	7237	120	0.7				
1629	1648	140	19.2	4080	4100	132	20.7	7239	7252	140	13.1				
1746	1852	304	105.4	4143	4201	195	58.3	7350	7379	167	29.0				
1854	1855	122	1.3	4285	4309	175	24.7	7382	7385	124	3.0				
1856	1869	134	12.3	4383	4405	165	22.3	7407	7494	190	86.8				
1877	1878	122	1.1	4422	4473	176	51.2	7591	7604	149	12.7				
1881	1882	120	0.7	4496	4547	208	50.9	7607	7610	125	3.3				
1884	1887	126	3.0	4548	4594	194	45.6	7675	7686	130	10.8				
1893	1901	127	8.7	4615	4620	127	5.6	7708	7714	124	6.2				
1911	1914	123	2.4	4683	4709	168	25.8	7722	7730	132	7.6				
1916	1947	208	30.8	4742	4774	235	32.4	7741	7749	129	7.6				
1970	2019	150	48.6	4775	4840	196	65.0	7814	7816	121	1.1				
2068	2071	125	3.4	4928	4931	124	3.3	7819	7824	129	4.7				
2072	2073	121	1.3	4963	4963	120	0.3	7826	7827	120	0.4				
2098	2153	204	55.6	5031	5054	144	22.2	7863	7883	163	19.5				
2188	2232	204	43.7	5095	5110	153	15.5	7886	7888	126	2.0				
2242	2277	167	35.7	5112	5115	125	3.3	7929	7935	126	5.5				
2336	2338	124	2.1	5118	5118	120	0.2	7940	7941	121	0.9				
2454	2484	161	30.8	5245	5273	163	27.5	7985	7988	127	2.9				
2487	2493	126	5.6	5279	5314	158	34.9	8020	8108	187	88.0				
2500	2502	123	1.8	5325	5351	149	25.7	8109	8113	131	4.2				
2503	2567	215	64.5	5366	5368	122	1.7	8114	8115	122	1.5				
2592	2605	146	13.0	5396	5404	128	8.0	8122	8128	132	5.9				
2610	2616	131	6.2	5443	5517	172	73.6	8164	8219	160	54.5				
2663	2687	156	24.4	5519	5525	127	6.6	8235	8239	133	4.1				
2726	2749	171	23.0	5528	5531	130	2.6	8276	8291	133	14.5				
2775	2777	123	2.7	5538	5539	121	1.2	8324	8375	154	51.3				
2778	2783	134	4.8	5541	5546	131	4.8	8421	8423	123	2.0				
2817	2842	163	24.4	5581	5628	191	46.6	8426	8427	121	1.1				
2881	2883	122	1.4	5674	5676	122	2.1	8428	8454	167	25.4				

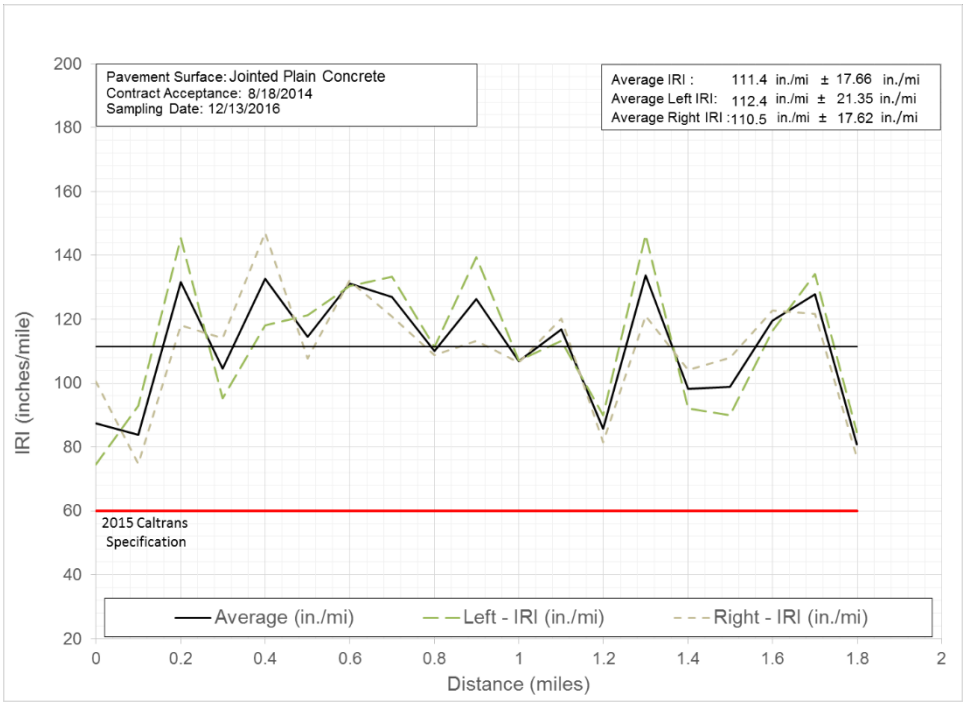

Figure A.44: CC680S5PM6.6

Table A.44: Defective Segments from CC680S5PM6.6

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
105	147	199	42.3	4465	4528	182	63.3	9049	9080	160	31.0				
172	177	124	4.9	4616	4648	157	31.7	9106	9158	172	52.2				
185	286	203	101.7	4650	4653	121	3.1	9160	9169	140	8.2				
443	447	127	3.7	4658	4663	130	4.8	9196	9214	137	18.6				
451	467	137	15.7	4720	4721	122	1.6	9247	9251	128	4.3				
707	719	129	12.3	4723	4869	199	145.7	9324	9402	236	77.9				
860	875	166	15.6	4897	4910	136	12.7	9405	9406	122	1.6				
1003	1005	123	1.7	4910	4917	134	6.5	9417	9420	126	2.7				
1071	1099	175	28.1	4923	4953	177	30.3	9427	9479	204	52.1				
1127	1129	123	1.3	4955	4957	122	2.0								
1131	1131	121	0.6	4958	4959	121	1.1								
1133	1134	120	0.4	4972	5004	148	31.8								
1142	1201	184	58.9	5009	5014	126	5.8								
1201	1202	120	0.7	5114	5125	131	10.8								
1250	1278	189	28.5	5129	5130	121	1.7								
1347	1370	151	22.7	5131	5142	133	11.1								
1380	1380	121	0.9	5160	5162	124	1.3								
1406	1408	123	1.8	5429	5475	192	46.5								
1409	1472	168	63.1	5477	5478	122	1.1								
1501	1502	122	1.8	5519	5608	261	89.1								
1522	1524	124	2.1	5690	5705	136	14.5								
1541	1584	177	42.7	5844	5873	163	29.4								
1734	1790	224	55.8	5885	5948	265	63.5								
1812	1824	131	11.6	6008	6010	122	1.6								
1828	1833	125	5.2	6017	6073	234	56.3								
1861	1863	122	2.1	6086	6107	146	21.1								
1902	1926	154	23.9	6172	6205	216	32.2								
2005	2047	198	41.3	6270	6285	154	15.4								
2058	2151	236	92.8	6456	6486	209	29.4								
2157	2238	260	80.8	6589	6590	122	1.6								
2290	2345	259	55.0	6603	6604	120	0.7								
2370	2416	293	46.7	6605	6620	135	14.7								
2417	2423	141	5.7	6648	6673	177	24.9								
2479	2526	173	46.6	6797	6822	163	24.6								
2533	2534	121	0.9	6896	6975	245	79.1								
2536	2597	211	61.6	6981	7100	194	118.5								
2692	2693	121	1.1	7112	7138	183	25.5								
2693	2720	205	26.5	7204	7244	163	39.5								
2768	2851	212	83.2	7258	7265	127	7.6								
2927	2947	144	19.4	7266	7321	179	55.2								
3063	3082	142	18.9	7580	7637	258	57.4								
3109	3110	122	1.5	7695	7708	148	13.2								
3111	3152	151	41.0	7713	7769	284	56.5								
3180	3218	201	38.4	7770	7771	120	0.7								
3219	3224	127	4.7	7906	7928	175	22.4								
3231	3310	210	78.8	8017	8044	174	26.2								
3355	3357	122	1.4	8045	8047	123	2.1								
3357	3430	196	72.8	8204	8206	122	1.9								
3493	3515	160	22.3	8260	8332	242	71.3								
3572	3582	135	10.2	8348	8372	165	24.1								
3585	3616	148	30.8	8393	8394	121	0.7								
3627	3673	168	45.8	8396	8483	259	87.4								
3681	3690	145	9.2	8507	8587	272	80.1								
3693	3707	147	14.0	8625	8626	120	0.6								
3977	4069	247	92.3	8646	8649	126	2.5								
4128	4178	269	49.9	8654	8672	145	17.6								
4179	4232	218	53.5	8678	8679	122	1.3								
4254	4277	149	23.8	8895	8896	120	0.9								
4357	4366	143	8.9	8900	8919	134	18.9								
4372	4382	134	10.1	8923	8976	198	53.5								
4387	4401	143	14.2	9035	9045	149	10.2								

Fresno 180 Eastbound Lane 2 PM 71.8

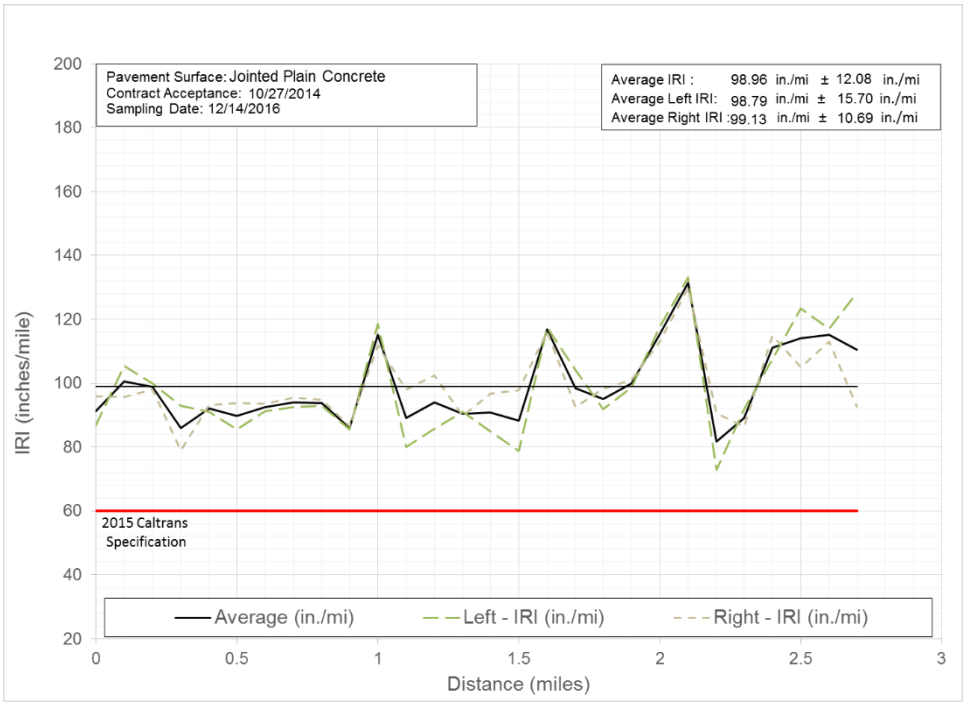

Figure A.45: Fre180E2PM71.8

Table A.45: Defective Segments from Fre180E2PM71.8

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
90	94	130	4.3	4623	4644	146	21.5	8996	9002	141	6.0	14067	14071	130	3.6
238	243	130	5.3	4646	4648	123	1.4	9006	9009	125	3.1	14336	14359	159	23.0
272	285	135	12.6	4679	4700	133	20.8	9012	9013	120	0.3				
371	374	124	3.2	4985	5009	167	24.4	9014	9022	143	7.6				
375	378	123	2.5	5156	5203	178	47.2	9029	9071	189	42.1				
383	388	127	4.1	5275	5275	120	0.4	9202	9210	132	7.6				
407	429	142	21.7	5278	5279	125	1.6	9557	9561	129	4.1				
431	433	126	1.9	5311	5382	258	70.2	9564	9590	150	25.4				
436	460	165	24.6	5384	5388	137	3.9	9614	9621	129	7.6				
594	606	130	11.5	5397	5408	129	11.3	9635	9667	157	32.3				
811	829	134	18.5	5419	5421	121	1.9	9804	9806	125	2.2				
838	848	137	10.3	5488	5536	265	48.6	9891	9936	174	44.3				
860	861	122	1.1	5558	5573	143	15.8	9964	9967	126	2.9				
892	901	128	9.5	5576	5576	121	0.7	10013	10033	157	20.1				
944	967	139	22.1	5670	5681	134	10.2	10081	10083	123	1.9				
1026	1027	121	1.1	5799	5805	128	6.2	10097	10097	120	0.7				
1027	1044	153	16.7	5984	5994	128	10.3	10170	10193	177	23.5				
1180	1201	153	21.9	6106	6115	130	9.1	10197	10225	206	27.5				
1387	1391	125	4.8	6124	6149	143	25.1	10280	10282	122	1.5				
1442	1487	169	45.2	6204	6218	143	13.3	10319	10382	178	62.7				
1526	1529	121	2.7	6219	6229	131	10.2	10457	10459	124	1.9				
1542	1548	131	7.0	6237	6243	124	6.6	10809	10811	123	2.1				
1557	1564	125	7.9	6246	6266	149	19.7	10920	11034	398	113.8				
1584	1588	127	4.4	6269	6271	125	2.0	11042	11098	263	56.5				
1590	1607	147	17.3	6275	6284	138	9.6	11104	11187	244	82.6				
1847	1871	140	24.0	6286	6299	132	12.5	11289	11353	439	63.8				
2010	2013	125	2.9	6340	6342	121	1.7	11388	11390	124	1.7				
2149	2151	123	1.8	6343	6368	150	25.3	11442	11446	130	3.2				
2191	2228	152	37.9	6425	6432	132	6.3	11520	11523	126	2.7				
2446	2459	133	12.5	6435	6437	124	1.9	11549	11578	166	29.8				
2608	2611	124	2.7	6447	6449	123	2.1	11619	11620	120	0.5				
2612	2655	155	43.4	6548	6581	184	33.1	11621	11636	133	15.3				
2656	2658	123	1.9	6734	6745	130	10.9	11832	11837	124	5.1				
2715	2716	122	1.2	6799	6801	125	2.0	11839	11840	122	1.1				
2719	2724	123	4.2	6810	6812	122	2.6	11962	11972	132	10.3				
2724	2734	135	10.1	6813	6819	128	6.2	11974	11993	143	19.1				
2735	2738	122	3.3	6831	6835	125	4.0	12051	12060	130	9.4				
2803	2828	146	24.7	6846	6855	138	8.8	12234	12236	126	2.5				
2986	2988	121	1.8	7068	7087	146	19.8	12543	12572	224	28.3				
2997	3000	125	3.4	7090	7090	121	0.7	12575	12576	120	0.3				
3099	3109	129	10.6	7297	7309	140	12.3	12580	12598	135	17.9				
3375	3396	148	20.9	7389	7392	124	2.7	12620	12624	122	3.4				
3423	3446	141	22.9	7508	7512	130	3.3	12626	12627	120	1.0				
3485	3490	132	4.9	7587	7604	139	17.2	12628	12634	127	5.8				
3597	3600	128	3.0	7653	7654	121	0.9	12827	12830	122	2.7				
3615	3623	147	7.4	7668	7669	121	0.9	12870	12907	245	37.7				
3631	3635	125	3.9	7669	7675	134	6.2	12909	12913	128	4.3				
3685	3686	121	1.1	7679	7697	143	17.6	12938	12956	136	17.8				
3783	3790	133	7.7	7698	7704	136	6.9	12968	13033	224	64.3				
3791	3793	124	1.8	7708	7732	158	24.9	13112	13157	197	45.5				
3794	3809	134	14.8	7818	7820	123	1.7	13161	13163	129	2.4				
3917	3930	134	12.7	8066	8072	131	5.7	13167	13256	239	88.2				
4055	4058	127	2.9	8123	8166	179	43.5	13353	13385	175	31.7				
4059	4061	121	1.3	8176	8181	123	4.8	13483	13564	181	80.9				
4062	4074	127	12.5	8182	8184	122	1.9	13708	13753	160	44.9				
4184	4188	126	4.8	8564	8565	122	1.0	13781	13816	200	34.3				
4303	4313	134	9.7	8616	8654	181	38.4	13818	13828	134	10.5				
4537	4540	124	2.1	8736	8767	179	31.0	13848	13887	177	38.5				
4542	4545	122	2.9	8824	8854	218	30.1	13930	13965	165	34.9				
4556	4563	137	6.7	8862	8953	225	90.7	13974	13979	128	4.8				
4610	4615	126	5.2	8978	8981	124	2.9	13981	14034	201	53.1				

Fresno 180 Westbound Lane 2 PM 73.9

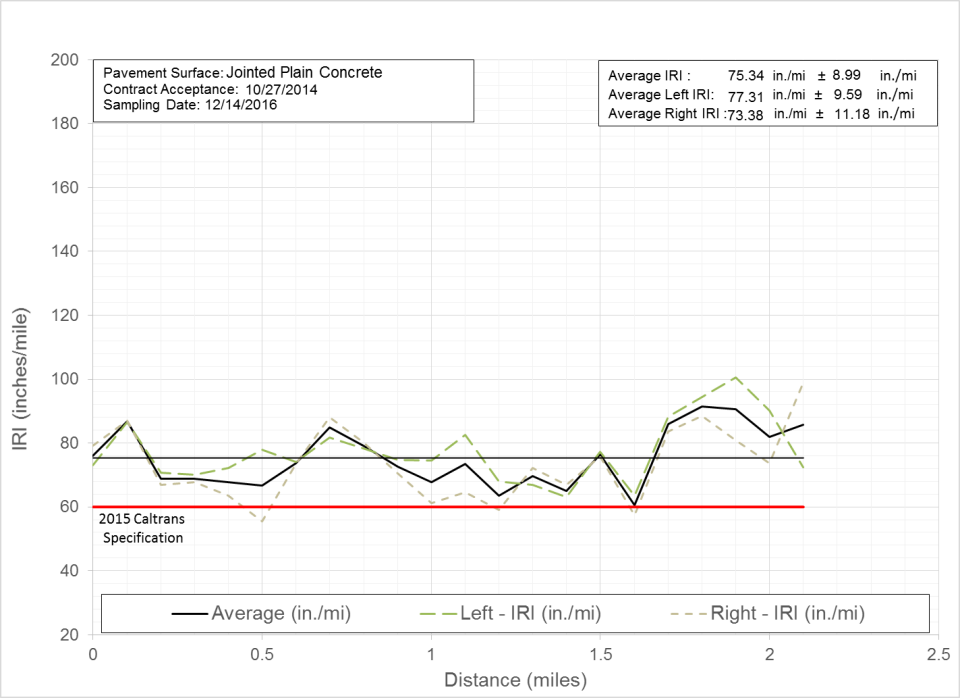

Figure A.46: Fre180W2PM73.9

Table A.46: Defective Segments from Fre180W2PM73.9

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
13	43	227	30.2												
49	67	159	18.0												
70	74	130	3.4												
307	319	135	12.1												
885	949	294	63.8												
978	1002	176	24.4												
1393	1395	122	2.4												
1396	1400	125	3.4												
1402	1404	125	2.1												
1407	1418	137	10.4												
3249	3275	178	26.3												
3431	3434	126	2.9												
3831	3838	128	6.9												
3944	3960	144	16.0												
4128	4142	134	13.9												
4145	4146	122	1.4												
4160	4170	131	9.6												
4187	4214	147	26.9												
4258	4266	131	7.5												
4332	4363	196	30.8												
4375	4383	137	8.0												
4384	4384	120	0.7												
4393	4398	129	5.0												
4689	4691	121	1.5												
4849	4851	122	2.1												
5120	5148	192	27.8												
5261	5288	183	26.3												
5290	5293	123	3.0												
7068	7081	139	13.3												
7276	7291	141	14.8												
8097	8122	150	24.7												
9241	9270	172	29.2												
9438	9439	122	1.5												
9446	9448	123	2.8												
9455	9457	125	2.7												
9493	9495	122	1.6												
9525	9532	126	6.7												
9675	9695	136	20.2												
9704	9710	129	5.8												
9736	9748	131	11.6												
9806	9809	121	3.0												
9820	9828	124	8.3												
10117	10120	124	3.0												
10124	10125	120	0.9												
10126	10136	134	9.5												
11057	11060	123	3.0												
11062	11065	125	3.2												

Orange 57 Northbound Lane 5 PM 12.3

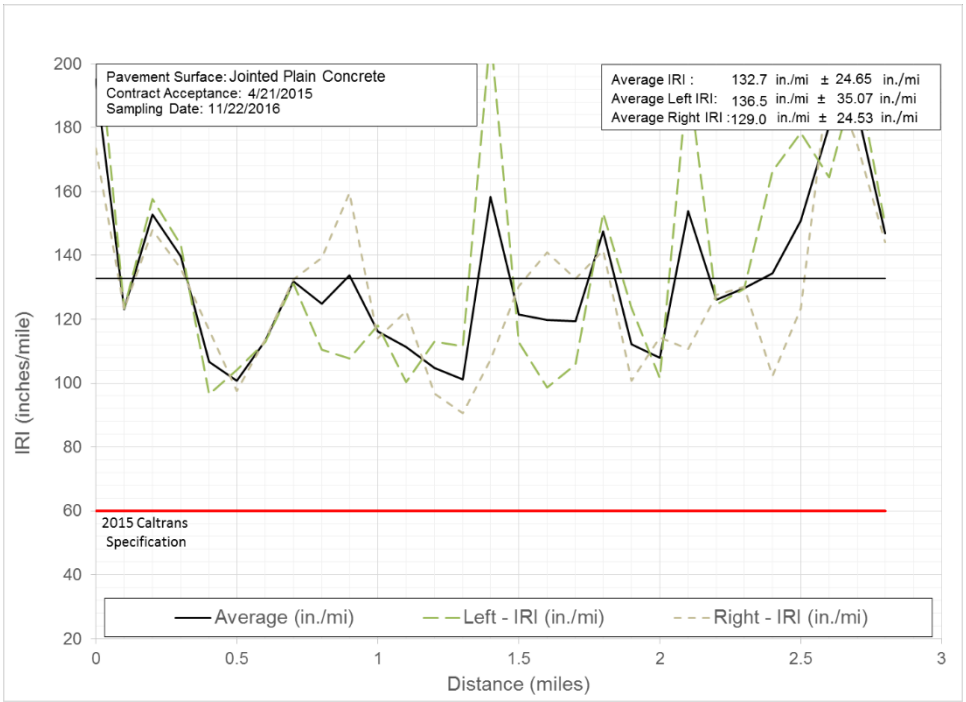

Figure A.47: Ora57N5PM12.3

Table A.47: Defective Segments from Ora57N5PM12.3

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
17	24	133	6.9	2857	2872	133	14.8	5865	5868	123	2.2	9202	9244	167	41.9
29	99	256	69.6	2873	2876	124	2.5	5896	5899	123	2.6	9245	9258	145	13.7
127	207	226	80.1	3135	3135	121	0.9	5901	5904	132	3.1	9265	9267	123	1.8
222	251	212	29.0	3137	3140	126	2.7	5911	5942	203	31.5	9268	9299	163	31.3
255	485	392	230.0	3143	3148	129	5.6	5995	6054	175	58.8	9332	9407	193	75.0
522	553	181	31.3	3153	3158	124	5.0	6068	6070	124	2.0	9415	9416	121	1.1
555	561	135	5.7	3167	3168	121	1.1	6072	6104	207	32.3	9432	9488	224	55.6
561	628	190	67.3	3171	3172	121	1.1	6106	6107	123	1.3	9499	9502	122	2.9
665	669	126	4.3	3181	3189	135	7.5	6109	6131	147	22.1	9503	9507	126	4.1
706	731	147	24.1	3355	3363	126	7.5	6179	6187	131	7.9	9512	9521	129	8.6
748	749	122	1.2	3407	3438	178	31.4	6191	6196	126	4.7	9531	9538	135	6.8
751	752	121	1.1	3454	3458	122	4.2	6198	6205	132	6.8	9539	9588	185	49.0
760	789	157	29.0	3460	3465	124	5.4	6224	6247	138	22.7	9595	9646	255	51.7
800	883	235	83.0	3470	3497	162	27.6	6259	6296	188	36.7	9657	9723	210	66.2
884	886	125	2.5	3513	3572	176	59.1	6299	6307	140	8.0	9737	9738	121	1.1
946	946	120	0.5	3578	3603	165	25.8	6308	6325	143	16.3	9744	9746	122	1.9
953	955	126	2.7	3616	3623	130	7.7	6327	6327	120	0.3	9752	9789	177	37.2
1069	1147	214	77.9	3627	3673	161	45.1	6328	6334	126	6.1	9791	9822	213	31.3
1215	1274	191	59.1	3720	3746	171	26.4	6376	6400	159	23.5	9823	9829	132	5.7
1278	1283	127	4.9	3747	3763	152	16.1	6467	6471	131	4.2	9830	9831	122	1.3
1285	1286	121	0.6	3766	3793	157	27.1	6531	6559	220	27.8	9837	9839	122	1.6
1287	1307	149	19.5	3796	3801	129	4.5	6756	6781	190	25.4	9841	9844	122	3.7
1309	1309	121	0.8	3804	3806	125	2.4	6878	6883	126	5.2	9867	9892	145	25.2
1311	1421	304	110.4	3811	3838	185	26.8	6886	6888	120	2.3	9933	10021	194	87.1
1424	1426	123	1.6	3863	3952	232	89.1	6898	6900	124	1.6	10121	10148	168	26.7
1442	1450	147	7.2	3977	4075	246	98.0	7037	7048	127	11.0	10153	10199	216	46.4
1451	1479	159	27.6	4081	4112	169	31.5	7066	7066	120	0.6	10201	10203	123	1.9
1484	1525	168	40.5	4217	4226	134	8.8	7070	7099	166	29.1	10204	10208	127	4.7
1527	1542	155	14.2	4288	4295	138	6.8	7104	7109	129	4.8	10294	10302	131	8.3
1544	1602	243	57.9	4298	4311	131	13.2	7252	7278	168	26.0	10306	10307	121	1.1
1605	1609	121	3.4	4362	4416	209	54.3	7417	7418	121	1.1	10309	10330	141	20.8
1638	1644	129	6.4	4445	4514	222	69.1	7423	7425	121	1.4	10380	10398	167	18.0
1655	1737	193	82.6	4516	4594	262	78.8	7453	7478	176	25.3	10412	10414	123	2.5
1740	1745	126	4.5	4618	4682	194	63.8	7572	7581	133	9.2	10424	10437	148	13.5
1773	1800	178	27.1	4715	4745	172	30.2	7615	7638	168	23.5	10442	10443	122	1.1
1829	1830	121	0.8	4750	4776	154	26.2	7742	7800	197	57.3	10498	10500	121	1.8
1830	1863	149	33.1	4778	4796	140	18.1	7849	7866	136	17.4	10686	10711	141	25.3
1870	1874	127	4.1	4798	4804	136	6.0	7884	7902	137	17.5	10713	10722	143	8.5
1885	1911	174	25.6	4807	4809	122	1.1	8047	8212	366	164.5	10734	10738	125	3.4
1917	1954	167	37.4	4810	4813	125	2.3	8268	8281	140	13.5	10791	10813	153	21.1
1955	1957	122	1.5	4818	4820	127	2.6	8287	8293	135	6.9	10869	10870	121	1.1
1968	1968	121	0.7	4821	4822	120	0.3	8307	8333	146	25.3	10871	10982	185	110.6
2012	2047	183	34.6	4827	4832	125	4.9	8335	8336	122	1.7	10983	11017	207	33.8
2064	2144	258	80.5	4834	4841	123	6.6	8384	8389	129	4.8	11026	11031	132	4.8
2152	2153	121	1.2	4857	4859	124	1.9	8394	8403	139	9.3	11031	11049	146	18.0
2180	2207	169	27.4	4860	4888	151	27.5	8490	8540	198	50.0	11107	11134	187	27.0
2208	2210	126	2.5	4904	4910	132	5.8	8566	8604	209	37.6	11243	11277	226	34.8
2217	2238	147	21.2	4912	4928	142	16.1	8632	8670	158	38.5	11314	11328	145	14.0
2240	2241	121	1.1	4952	5082	254	129.6	8701	8714	133	13.0	11332	11333	121	1.6
2300	2301	120	1.1	5083	5084	122	1.1	8715	8744	168	29.4	11465	11504	175	39.5
2302	2303	120	1.1	5085	5096	133	11.2	8756	8758	123	1.8	11530	11586	175	56.6
2305	2315	142	10.1	5104	5184	303	79.3	8758	8762	127	4.0	11587	11589	121	2.8
2318	2356	178	38.1	5189	5217	189	28.4	8779	8782	128	3.0	11673	11809	332	135.9
2400	2425	158	25.3	5228	5333	257	105.9	8782	8847	226	64.8	11875	11899	171	24.6
2449	2471	156	21.3	5336	5336	120	0.4	8864	8989	247	125.1	12022	12029	125	6.2
2472	2475	121	2.6	5371	5397	159	26.4	8990	8991	121	0.7	12031	12034	126	3.4
2475	2482	134	6.2	5401	5490	192	88.7	9029	9071	211	41.7	12082	12108	151	26.6
2483	2485	123	2.1	5578	5590	133	12.1	9092	9118	167	25.8	12108	12146	189	37.3
2496	2500	135	4.6	5591	5593	122	1.3	9172	9178	130	5.2	12155	12210	244	54.9
2564	2569	130	4.8	5692	5717	145	25.1	9182	9185	122	2.7	12247	12249	122	1.5
2645	2685	174	40.3	5779	5782	121	2.7	9187	9189	123	2.0	12250	12255	126	4.6
2743	2749	133	6.0	5787	5788	121	0.9	9190	9197	139	7.3	12266	12270	127	3.8

Table A.47: Defective Segments from Ora57N5PM12.3 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
12276	12303	166	27.1												
12304	12347	188	43.6												
12377	12412	185	35.2												
12415	12444	167	29.0												
12458	12504	231	46.0												
12505	12506	121	1.1												
12621	12653	152	32.1												
12655	12656	121	1.2												
12685	12725	224	39.9												
12757	12802	189	45.4												
12901	12909	131	7.3												
12994	13001	129	7.5												
13078	13098	146	20.8												
13338	13441	202	102.8												
13444	13445	124	1.6												
13449	13479	182	30.0												
13482	13534	192	52.6												
13544	13551	135	7.0												
13560	13568	137	8.1												
13574	13598	150	24.0												
13607	13608	120	1.1												
13622	13632	147	9.4												
13635	13640	129	4.6												
13644	13647	124	3.4												
13668	13674	131	6.2												
13686	13692	129	6.4												
13699	13703	124	4.4												
13705	13722	139	17.5												
13728	13736	138	8.2												
13747	13751	128	4.1												
13761	13785	161	24.4												
13790	13799	150	9.8												
13800	13826	158	25.6												
13828	13909	315	80.1												
13910	14099	343	189.1												
14101	14402	309	300.9												
14410	14451	194	41.7												
14455	14456	120	0.5												
14473	14500	169	27.9												
14501	14621	220	120.0												
14625	14658	210	33.1												
14661	14712	222	51.2												
14720	14788	207	68.7												
14797	14838	195	41.3												
14842	14894	197	52.3												
14896	14933	196	37.8												
14934	15035	254	100.9												
15041	15054	145	13.0												
15058	15072	158	14.0												
15108	15115	140	7.2												
15117	15146	175	28.6												
15156	15157	122	1.3												
15165	15193	164	28.6												
15196	15198	124	1.9												
15202	15207	122	5.7												
15214	15240	163	26.0												
15246	15250	125	4.4												

Orange 57 Southbound Lane 5 PM 15.2

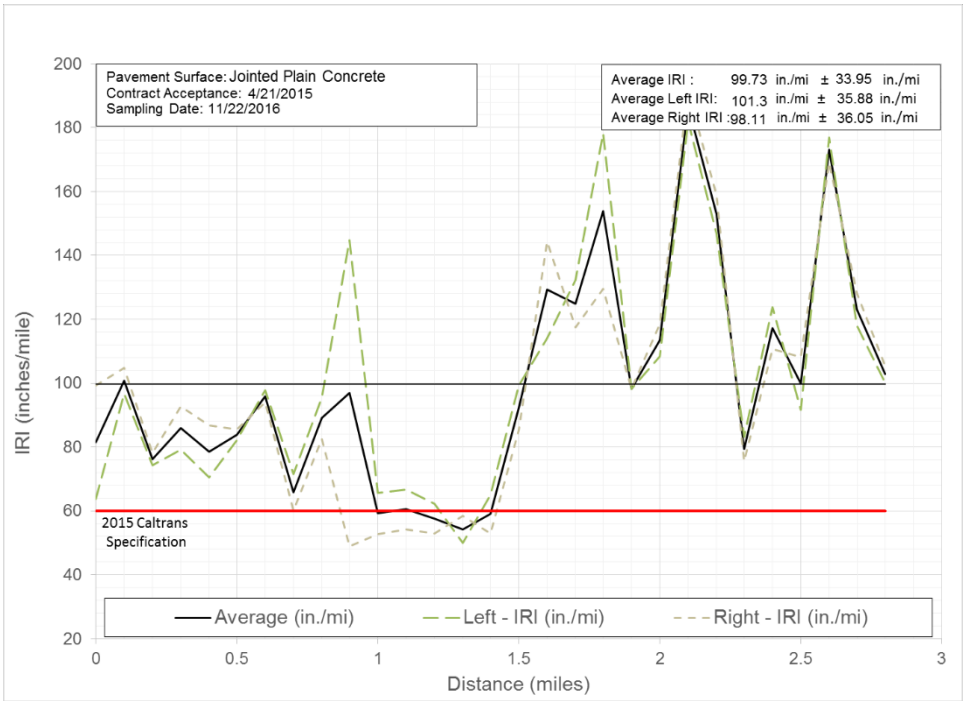

Figure A.48: Ora57S5PM15.2

Table A.48: Defective Segments from Ora57S5PM15.2

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
31	37	128	5.9	8558	8559	123	1.7	13252	13264	159	11.5				
45	50	128	5.7	8566	8577	133	10.7	13275	13303	151	28.7				
77	78	122	1.6	8741	8746	126	5.2	13337	13365	164	28.2				
116	117	125	1.6	8771	8774	127	2.5	13443	13453	139	9.4				
179	179	121	0.5	8781	8858	827	76.3	13454	13469	150	14.1				
218	224	125	5.3	8862	8867	126	5.7	13472	13487	161	14.8				
229	242	143	12.8	8883	8886	125	2.5	13526	13545	143	18.9				
262	264	124	2.7	8891	8934	211	42.2	13646	13680	156	34.7				
266	266	120	0.5	9063	9086	139	23.0	13714	13812	676	98.1				
280	282	123	2.1	9124	9274	327	149.9	13828	13853	176	24.9				
541	546	131	5.7	9653	9676	180	22.9	13863	14037	359	174.5				
665	669	127	4.0	9697	9783	449	85.3	14040	14054	129	14.6				
706	752	371	45.9	9807	9850	231	43.6	14089	14111	148	22.5				
757	758	121	1.3	9874	9967	228	93.3	14198	14201	128	3.1				
943	968	153	24.4	9970	9974	126	3.7	14214	14221	136	7.4				
1006	1009	123	2.7	10043	10068	164	24.9	14228	14230	121	2.0				
1024	1025	121	1.3	10090	10104	140	13.7	14231	14237	127	5.8				
1026	1030	126	3.4	10131	10160	219	29.2	14260	14264	129	4.6				
1037	1047	129	10.5	10260	10264	128	4.4	14272	14285	164	13.4				
1479	1481	125	2.5	10265	10280	136	15.1	14288	14326	150	38.3				
1482	1494	141	12.4	10442	10472	185	30.8	14400	14434	153	33.6				
1646	1648	123	2.2	10475	10478	125	2.2	14445	14449	131	3.9				
1686	1691	125	5.2	10523	10530	135	6.7	14462	14494	158	32.0				
1732	1741	134	8.4	10574	10597	178	22.4	14519	14555	173	35.8				
1751	1752	123	1.6	10777	10805	188	27.9	14585	14587	122	1.8				
1782	1791	146	9.4	10889	10929	190	40.4	14612	14635	152	22.2				
1793	1800	127	7.4	10950	11058	246	107.8	14646	14653	134	7.0				
1892	1896	133	3.7	11062	11070	152	8.4	14655	14699	181	43.9				
1901	1922	162	21.8	11071	11072	122	1.5	14705	14715	151	9.4				
1951	1959	149	8.2	11074	11112	165	38.0	14719	14745	169	26.0				
1960	1961	122	1.6	11122	11165	249	42.7	14750	14799	210	48.5				
1962	1969	131	6.6	11167	11227	272	59.5								
2275	2288	140	13.0	11229	11283	206	53.8								
2352	2359	137	7.5	11308	11440	369	131.6								
2365	2390	156	25.3	11448	11632	300	184.1								
2397	2398	123	1.8	11646	11647	122	1.2								
2613	2615	123	2.0	11650	11667	150	16.8								
2656	2663	139	6.9	11669	11670	120	1.1								
2675	2677	126	2.8	11671	11675	127	4.0								
2693	2696	124	3.0	11755	11884	392	128.0								
2799	2805	137	6.1	11890	11933	233	42.6								
2813	2839	173	26.5	11935	12011	269	76.7								
2905	2916	140	10.7	12051	12073	151	21.7								
2919	2929	161	9.7	12080	12081	121	0.7								
2938	2945	143	6.8	12087	12089	124	1.8								
3314	3314	120	0.2	12090	12104	137	14.0								
3351	3376	179	24.9	12106	12135	147	28.4								
3464	3470	135	5.4	12562	12568	126	6.2								
3477	3486	146	9.5	12616	12617	123	1.3								
3492	3521	299	29.2	12658	12661	131	3.5								
3641	3655	148	13.9	12668	12756	201	88.3								
3682	3690	139	8.1	12792	12794	123	1.7								
3691	3704	148	13.9	12801	12816	151	15.1								
3767	3790	144	23.8	12885	12891	137	6.6								
4329	4335	137	5.8	12903	12907	130	3.8								
4343	4367	137	24.7	12918	12941	169	22.3								
4426	4451	155	25.0	12966	12972	138	6.2								
4560	4583	148	22.2	12976	12999	169	23.0								
8118	8146	170	27.6	13151	13158	141	7.1								
8151	8196	208	45.2	13164	13182	130	18.7								
8403	8427	151	23.8	13214	13215	121	0.9								
8480	8521	197	40.5	13241	13251	139	9.9								

Los Angeles 5 Northbound Lane 4 PM R46.3

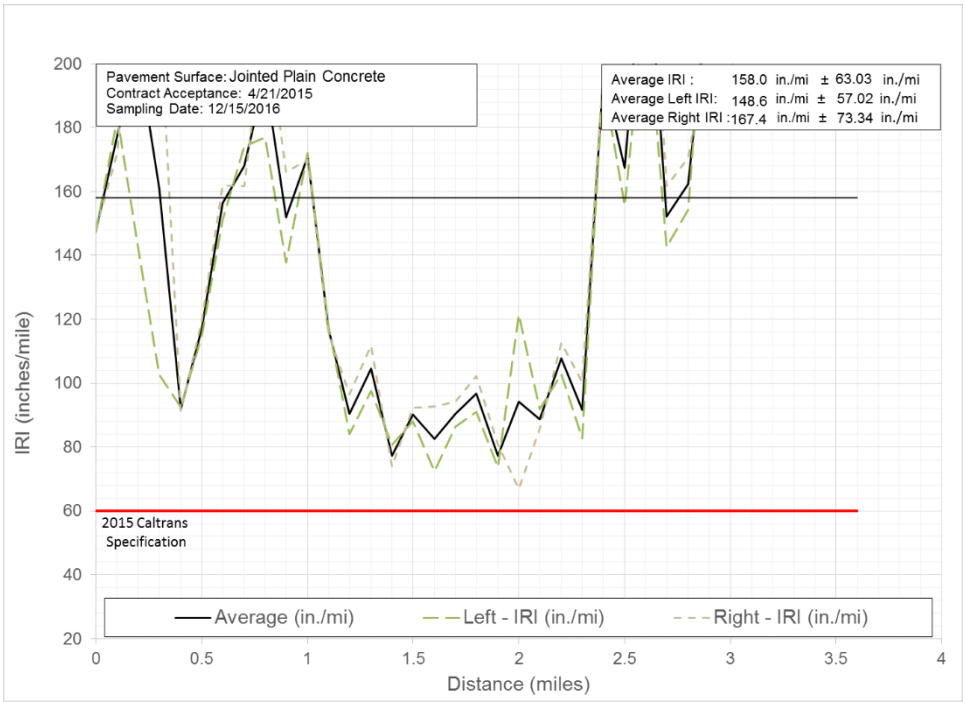

Figure A.49: LA5N4PMR46.3

Table A.49: Defective Segments from LA5N4PMR46.3

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
42	48	136	6.2	3992	4042	192	49.9	9950	9953	123	2.8	15929	15981	173	51.8
65	130	285	64.2	4053	4087	185	33.9	9953	9961	143	7.3	15992	15994	122	1.2
289	290	121	1.1	4088	4392	440	304.6	9962	9971	136	8.4	16008	16019	124	11.4
311	314	132	3.2	4456	4520	477	64.6	10007	10010	127	3.4	16050	16106	213	56.0
319	439	316	119.8	4559	4561	123	1.9	10014	10027	138	13.5	16112	16114	121	1.2
447	474	153	26.8	4627	4874	498	247.4	10028	10029	121	1.1	16116	16120	128	4.1
476	489	142	12.7	4903	4910	126	6.9	10245	10286	153	41.3	16122	16350	430	227.9
489	574	314	85.0	4910	4939	157	29.0	10522	10537	153	14.9	16387	16389	123	2.1
580	672	472	92.3	4939	4940	120	0.6	10975	10987	128	12.4	16392	16393	120	1.7
711	717	130	6.2	4982	4985	125	2.5	11332	11354	140	22.3	16477	16480	125	3.1
724	811	225	87.8	5018	5020	122	1.6	11417	11447	181	29.5	16482	16559	223	77.0
853	879	160	25.9	5063	5075	138	12.2	11521	11534	142	12.5	16564	16570	138	6.8
881	960	195	78.2	5076	5083	128	7.5	11647	11701	199	54.0	16572	16724	592	152.1
992	1012	152	19.8	5085	5087	124	1.6	11703	11730	165	27.6	16753	17182	993	428.5
1020	1023	124	2.9	5166	5181	139	15.8	11755	11756	120	0.5	17187	17711	596	523.6
1024	1031	134	7.1	5189	5467	666	277.6	11758	11765	128	7.2	17715	17773	254	57.7
1033	1082	169	49.0	5471	5471	120	0.3	11766	11799	192	32.6	17821	18249	737	428.8
1116	1166	157	49.7	5474	5524	200	50.0	11888	11891	124	3.0	18265	18666	725	400.8
1192	1484	902	292.2	6233	6337	461	103.8	11903	11913	145	10.3	18677	18839	492	162.6
1512	1705	460	192.8	6342	6343	120	0.6	11914	11916	121	1.8	18841	19064	401	223.1
1715	1743	176	28.5	6344	6365	130	20.6	11925	11926	122	1.6				
1746	1925	634	179.4	6381	6407	151	26.0	11987	11998	132	10.7				
1967	1968	121	0.6	6602	6626	141	23.7	12109	12183	207	74.9				
1981	1986	131	5.0	6654	6663	127	9.5	12261	12277	138	15.6				
2104	2111	135	6.5	6665	6675	137	10.3	12342	12354	130	12.9				
2210	2216	124	5.7	6676	6694	135	18.2	12424	12462	189	37.6				
2290	2296	138	6.6	6870	6874	131	4.8	12611	12625	148	13.9				
2299	2318	150	19.3	6888	6895	138	6.8	12628	12632	133	3.5				
2353	2356	123	2.1	6901	6901	120	0.6	12705	12828	459	123.9				
2356	2356	121	0.7	6903	6909	128	5.6	12843	13117	409	274.9				
2365	2373	134	8.8	6931	6932	121	1.3	13158	13197	193	39.1				
2694	2700	137	6.1	6933	6956	160	23.0	13202	13227	153	25.0				
2702	2710	141	8.4	7034	7126	297	92.0	13238	13244	137	5.9				
2775	2868	190	93.7	7217	7219	122	2.1	13276	13295	156	18.6				
2874	2875	121	1.6	7224	7243	142	18.5	13295	13306	141	10.8				
2991	2997	133	5.6	7891	7954	234	63.3	13358	13468	269	109.7				
3012	3013	120	0.5	8159	8168	137	9.6	13486	13488	121	1.7				
3076	3117	265	41.3	8169	8178	133	8.7	13493	13595	542	101.3				
3124	3135	131	11.0	8230	8247	145	17.1	13603	13653	277	49.5				
3141	3194	165	53.5	8348	8361	142	13.3	13682	13844	534	161.3				
3232	3240	131	8.6	8536	8555	144	19.4	13844	14216	560	371.6				
3248	3255	125	7.0	8605	8610	126	5.3	14244	14287	237	43.1				
3294	3460	464	165.6	8613	8613	120	0.2	14374	14394	134	20.1				
3462	3467	138	4.9	8653	8656	125	3.3	14482	14483	120	0.4				
3479	3487	130	8.7	8752	8753	120	0.3	14531	14667	311	135.8				
3497	3501	133	4.4	8757	8782	165	25.3	14668	14681	144	13.6				
3503	3532	219	29.1	8809	8812	123	2.7	14682	14691	128	9.1				
3538	3552	163	14.4	8813	8820	141	6.6	14755	14848	820	93.2				
3556	3561	125	4.5	8828	8859	179	31.8	14960	14965	125	4.8				
3562	3563	123	1.4	8968	8982	138	13.3	14968	14969	120	0.7				
3567	3582	137	14.8	9117	9142	183	25.6	15027	15031	126	3.7				
3587	3592	148	5.7	9167	9186	130	18.9	15032	15042	135	10.4				
3603	3613	156	10.1	9193	9216	151	23.4	15046	15093	190	46.8				
3619	3647	169	28.1	9235	9240	126	4.8	15128	15258	443	129.8				
3693	3695	124	1.9	9241	9244	125	3.5	15259	15289	261	30.1				
3712	3717	127	4.9	9265	9272	127	6.8	15291	15296	130	5.1				
3842	3886	189	44.2	9275	9290	143	14.1	15324	15351	179	27.0				
3888	3890	121	1.7	9513	9516	125	3.1	15354	15514	366	159.4				
3900	3958	236	58.3	9679	9749	293	70.1	15517	15532	135	14.7				
3966	3967	125	1.5	9893	9912	151	18.5	15573	15576	123	3.0				
3986	3986	120	0.1	9914	9941	157	26.8	15581	15617	176	35.6				
3987	3990	128	2.9	9947	9948	120	0.8	15621	15918	559	297.1				

Los Angeles 5 Southbound Lane 4 PM R50.0

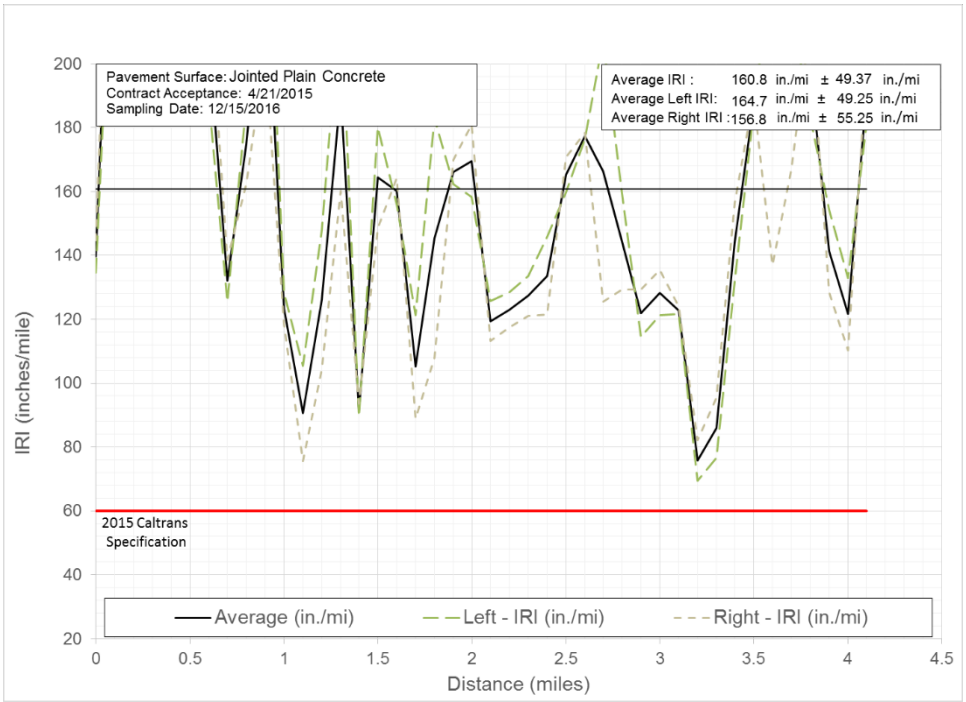

Figure A.50: LA5S4PMR50.0

Table A.50: Defective Segments from LA5S4PMR50.0

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
115	141	185	26.2	7819	7850	200	31.1	12168	12258	183	90.3	16600	16602	123	2.1
148	148	121	0.7	7851	7856	139	4.9	12260	12267	126	6.5	16612	16613	122	1.1
164	322	281	158.3	7865	7865	121	0.9	12282	12310	149	28.1	16613	16622	141	8.9
349	389	343	40.3	7867	7872	132	5.1	12325	12332	131	7.0	16632	16636	124	3.9
420	443	160	23.0	7909	8008	367	98.5	12336	12384	212	47.8	16677	16703	156	25.8
479	484	123	5.7	8036	8043	126	6.6	12452	12453	123	1.5	16779	16792	138	12.6
492	562	543	70.5	8052	8059	125	6.6	12455	12467	163	12.8	16795	16805	157	10.0
572	739	503	167.3	8111	8177	328	65.7	12556	12557	121	1.3	16809	16821	133	11.9
758	1153	1023	394.6	8215	8222	133	6.6	12560	12561	120	1.1	16994	17005	135	10.7
1159	1165	132	5.6	8223	8240	149	17.2	12561	12623	173	62.0	17130	17138	132	7.1
1165	1743	601	578.7	8310	8318	129	7.9	12659	12661	121	1.1	17187	17259	183	72.0
1750	1763	153	12.8	8359	8364	142	5.6	12813	12834	141	21.9	17383	17389	127	5.6
1787	2245	414	457.9	8367	8505	313	137.3	12891	12903	131	12.5	17495	17504	134	8.6
2249	2580	1035	330.8	8513	8518	123	4.6	13012	13028	150	15.9	17505	17507	124	2.5
2623	2745	403	121.5	8520	8771	204	250.5	13090	13434	379	344.2	17795	17796	121	0.9
2747	2784	295	36.9	8772	8920	270	148.5	13446	13524	177	78.2	17800	17806	126	6.1
2798	2888	319	90.5	9223	9257	233	34.4	13565	13602	193	36.8	17807	17817	130	9.9
2903	3520	422	617.5	9305	9340	250	35.0	13610	13698	254	87.3	17818	17821	127	3.0
3554	3555	120	1.0	9563	9585	162	22.6	13744	13777	178	32.4	17902	18041	383	139.4
3559	3559	120	0.5	9658	9683	169	25.3	13793	13795	123	2.8	18085	18113	204	28.7
3561	3574	150	12.4	9739	9789	205	49.9	13799	13804	132	5.1	18291	18427	359	135.3
3602	3687	559	84.7	9824	9911	230	87.2	13805	13978	272	172.8	18475	18520	195	44.9
3689	3730	235	41.8	9999	10022	147	22.7	13980	13985	125	4.6	18535	18746	404	211.4
3735	3736	122	1.0	10026	10057	436	31.6	13988	14249	384	260.6	18849	18854	122	5.1
3813	3813	120	0.3	10081	10152	322	71.8	14254	14260	143	5.7	18874	18897	178	23.4
3814	3842	169	27.3	10195	10222	202	27.6	14260	14331	359	71.0	18897	19017	468	119.4
3844	3870	154	25.8	10300	10330	206	30.2	14355	14450	241	95.1	19096	19322	321	226.0
4057	4189	385	132.1	10333	10342	136	9.4	14458	14464	134	6.6	19325	19359	177	33.1
4196	4237	206	40.8	10343	10448	375	105.1	14490	14496	136	5.7	19373	19375	126	2.6
4264	4291	160	26.8	10466	10467	121	1.0	14498	14500	122	1.6	19425	19426	121	1.3
4300	4304	128	4.4	10481	10554	330	73.7	14501	14507	126	6.5	19428	19430	121	1.8
4314	4315	123	1.8	10558	10560	129	2.2	14615	14618	127	2.6	19484	19523	174	38.7
4316	4318	122	1.6	10572	10744	397	171.4	14620	14626	131	6.4	19562	19580	142	17.7
4322	4325	128	3.0	10753	10788	173	35.7	14869	14879	128	10.5	19582	19588	133	5.6
4326	4460	359	133.9	10790	10891	513	100.5	14891	14893	124	1.8	19610	19763	482	153.6
4620	4686	512	65.5	10940	10955	133	15.3	14905	14979	307	74.5	19766	19767	121	0.8
4726	4920	448	193.5	10962	10965	136	3.5	15075	15080	134	5.2	19799	19828	185	28.5
4921	4985	387	64.1	10969	10971	122	3.0	15188	15206	137	18.3	19829	19840	138	11.0
5055	5057	125	2.7	10973	10984	126	10.3	15216	15305	428	88.9	19884	19890	136	6.6
5061	5121	190	60.1	11000	11020	146	19.4	15318	15361	243	42.7	19949	20042	333	93.3
5129	5163	228	34.1	11246	11326	264	80.1	15362	15364	124	1.6	20048	20207	465	159.0
5178	5210	200	31.4	11387	11452	265	64.6	15365	15395	163	29.5	20262	20545	372	282.4
5212	5331	614	119.2	11500	11504	130	3.3	15397	15482	212	85.2	20547	20550	122	2.3
5604	5640	412	35.7	11505	11509	123	3.7	15539	15543	125	4.1	20552	20589	181	36.4
5695	5718	175	23.3	11510	11513	122	2.0	15548	15654	210	105.8	20597	20684	317	87.7
5742	5763	134	21.1	11514	11518	131	4.1	15694	15745	206	50.6	20722	20736	140	14.1
5872	5873	121	1.1	11681	11693	134	11.3	15861	15862	121	0.7	20739	20747	126	7.7
5970	5982	134	12.2	11721	11722	121	0.8	16039	16053	140	13.6	20777	20820	221	43.7
6340	6345	123	5.0	11754	11796	284	41.7	16054	16055	121	1.1	20887	20890	124	2.7
6619	6629	141	10.3	11804	11807	123	3.0	16078	16087	132	8.9	20891	20893	121	1.2
6636	6639	122	3.6	11867	11883	136	15.9	16106	16122	133	15.8	20901	20905	126	3.5
6663	6754	431	91.3	11888	11889	121	1.0	16122	16127	126	4.5	21036	21075	212	39.5
6854	6957	465	102.5	11890	11897	126	6.6	16143	16145	121	2.0	21076	21081	145	4.5
6992	6993	121	1.1	11901	11912	130	10.8	16146	16169	152	23.3	21087	21090	124	3.0
6996	7083	185	87.8	11920	11944	137	24.9	16191	16350	417	159.0	21092	21154	239	61.7
7086	7138	231	51.9	11948	11954	127	5.8	16353	16407	203	54.2	21270	21301	174	31.6
7251	7257	125	6.1	11965	11967	122	2.5	16409	16456	328	47.2	21413	21438	158	25.5
7261	7265	127	3.4	11987	11991	127	3.4	16511	16519	135	8.8	21447	21452	123	5.7
7266	7273	130	6.6	11992	12017	145	25.3	16522	16526	123	3.6	21479	21480	121	0.7
7281	7285	125	4.3	12044	12055	131	11.2	16528	16536	131	7.7	21500	21503	127	2.6
7316	7349	403	33.1	12071	12095	162	24.4	16540	16591	173	50.8	21536	21611	203	74.6
7740	7765	151	24.8	12124	12160	181	36.3	16597	16599	124	2.1	21635	21799	358	163.8

Los Angeles 5 Northbound Lane 4 PM 31.6

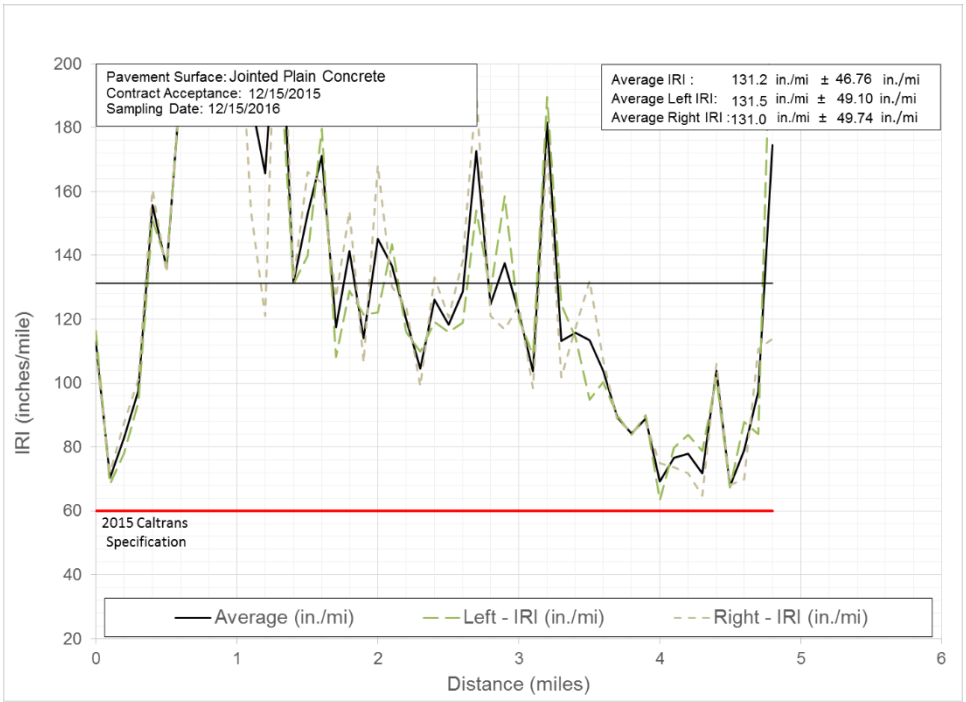

Figure A.51: LA5N4PM31.6

Table A.51: Defective Segments from LA5N4PM31.6

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
20	22	132	3.0	5597	5765	848	168.3	10433	10437	130	3.6	12919	12945	169	25.5
25	168	398	143.9	5780	5861	563	81.0	10475	10486	131	11.1	12984	12988	124	3.3
169	181	146	11.5	5878	5881	124	3.4	10558	10568	136	10.0	13000	13001	120	0.9
188	190	122	1.7	6026	6179	460	152.2	10569	10583	141	13.7	13037	13131	279	94.4
504	525	145	21.2	6189	6289	193	99.5	10588	10589	125	1.6	13165	13177	127	12.4
908	911	122	2.3	6291	6316	156	24.9	10592	10713	295	121.0	13204	13237	161	33.6
916	918	123	2.7	6447	6462	135	14.8	10714	10746	239	31.7	13239	13241	121	1.6
921	929	129	7.7	6465	6469	129	3.8	10749	10752	130	3.0	13243	13244	120	0.6
1044	1045	121	1.1	6472	6474	123	2.4	10760	10793	162	33.5	13404	13404	120	0.4
1056	1060	125	4.2	6563	6655	203	92.0	10796	10803	139	6.5	13412	13422	132	10.1
1433	1436	125	2.8	6752	7387	468	635.3	10821	10822	121	0.7	13425	13428	129	3.1
1489	1517	193	28.5	7454	7474	145	20.8	10824	10831	129	7.4	13445	13451	134	6.3
1520	1527	128	6.2	7570	7573	125	2.8	10838	10851	149	13.0	13454	13467	144	12.8
1531	1531	120	0.4	7577	7581	130	4.6	10851	10986	213	135.2	13468	13470	125	2.1
1588	1589	120	0.5	7587	7589	122	2.2	10989	11030	238	40.8	13472	13498	189	26.4
1729	1731	124	2.1	7704	7727	150	23.0	11034	11036	129	2.2	13524	13526	124	1.7
1926	1933	126	7.5	7757	7792	247	35.8	11050	11098	232	48.6	13533	13542	132	9.1
1972	1974	125	2.9	7811	7813	126	2.2	11104	11107	126	3.3	13543	13550	133	6.4
1991	1993	121	1.5	7816	7818	122	2.4	11112	11116	134	3.7	13603	13603	120	0.4
1999	2009	138	10.0	7822	7825	122	2.9	11125	11129	126	3.9	13607	13644	211	37.0
2014	2025	143	10.5	7833	7930	527	96.7	11187	11195	131	7.8	13673	13677	129	3.8
2025	2102	178	76.8	7961	7994	201	32.8	11205	11237	160	31.9	13679	13738	212	58.4
2104	2129	160	25.0	8015	8016	123	1.4	11289	11378	257	88.3	13743	13746	124	2.3
2150	2279	252	129.3	8017	8086	376	69.1	11381	11384	124	3.2	13773	13782	130	9.2
2305	2392	350	87.3	8088	8096	136	7.6	11385	11404	143	19.0	13785	13797	143	12.1
2394	2397	122	3.0	8100	8120	142	19.2	11491	11527	169	35.1	13804	13809	134	4.9
2424	2426	123	1.5	8121	8147	144	26.0	11531	11602	250	71.0	13818	13859	164	41.6
2433	2446	143	13.4	8148	8149	121	0.8	11602	11630	157	27.3	13862	13888	169	26.3
2447	2468	161	20.8	8162	8215	163	53.1	11659	11685	159	25.8	13914	13943	219	28.2
2472	2477	128	4.9	8230	8377	341	146.9	11690	11700	132	9.4	13960	13976	149	16.0
2479	2594	238	115.3	8433	8448	144	14.7	11751	11775	151	23.9	13979	13981	122	2.1
2603	2629	165	26.4	8473	8499	151	26.6	11797	11826	175	29.0	13983	14062	296	79.1
2634	2638	121	4.3	8505	8690	566	184.7	11830	11837	129	6.8	14082	14113	160	31.3
2639	2640	121	1.1	8705	8736	178	31.0	11844	11845	125	1.4	14115	14126	142	11.2
2756	2759	124	3.5	9029	9033	123	4.1	11847	11872	163	24.7	14166	14242	194	75.5
2761	2762	121	1.1	9131	9141	144	9.8	11874	11879	136	4.4	14253	14255	122	1.6
2763	2792	146	29.4	9147	9199	212	52.3	11889	11917	173	27.8	14259	14291	188	32.3
2800	2803	125	3.3	9221	9306	235	85.5	11918	11921	126	2.8	14293	14343	600	50.2
2839	2860	144	20.8	9327	9354	158	27.3	11933	11957	160	24.0	14363	14375	137	12.1
2865	3086	284	220.8	9355	9357	124	2.0	11977	12004	232	26.7	14379	14434	297	54.5
3157	3161	127	4.5	9359	9366	130	6.2	12067	12067	121	0.5	14437	14438	121	1.1
3162	3171	142	8.4	9394	9424	179	30.7	12068	12079	147	11.2	14464	14489	159	24.9
3187	3191	135	4.2	9447	9514	172	67.7	12080	12081	120	0.3	14502	14503	121	0.9
3195	3287	208	91.7	9523	9531	132	8.3	12081	12091	138	9.9	14509	14673	414	164.4
3307	3360	199	52.7	9533	9708	276	174.6	12102	12139	206	36.9	14689	14726	225	37.0
3368	3408	205	40.4	9759	9771	126	12.1	12156	12182	205	25.9	14753	14879	387	125.2
3411	3422	141	10.7	9772	9783	134	10.9	12204	12244	168	39.9	15156	15196	195	40.4
3429	3456	162	27.1	9786	9802	140	16.1	12248	12280	178	32.8	15202	15242	243	39.9
3457	4022	744	565.0	9810	9810	120	0.8	12354	12380	155	25.8	15584	15596	139	12.4
4027	4067	249	40.3	9815	9817	123	2.1	12398	12424	190	26.6	15604	15606	121	1.3
4090	4243	275	152.7	9818	9896	237	78.0	12426	12430	127	4.2	15606	15608	122	2.0
4270	4273	123	2.6	9897	9925	166	27.6	12459	12466	125	7.1	15693	15771	412	78.2
4282	4309	155	27.1	9931	9932	124	1.7	12471	12474	125	2.2	15774	15849	309	74.6
4311	4636	483	324.3	9950	10012	300	61.8	12683	12688	127	4.4	15875	15901	155	25.3
4660	4697	359	36.8	10070	10072	123	2.2	12693	12722	175	29.0	15979	15989	139	10.0
4718	5103	557	384.8	10085	10134	205	49.1	12723	12733	128	10.0	16015	16021	137	6.9
5106	5115	136	8.9	10165	10177	130	12.1	12739	12747	139	7.9	16022	16029	128	6.5
5121	5146	153	25.3	10234	10258	150	24.0	12755	12763	130	8.2	16032	16060	161	28.1
5151	5159	138	8.0	10335	10338	122	2.4	12787	12798	145	10.7	16083	16121	223	38.5
5242	5445	296	202.8	10345	10348	124	2.2	12800	12831	163	31.0	16123	16138	140	14.8
5447	5478	178	31.4	10365	10369	127	4.5	12868	12878	139	10.0	16146	16175	212	29.4
5503	5572	245	68.9	10375	10403	179	28.0	12880	12916	197	36.8	16194	16196	122	2.1

Table A.51: Defective Segments from LA5N4PM31.6 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
16203	16226	150	22.6	20095	20102	133	7.4								
16232	16258	164	25.8	20111	20112	122	1.5								
16309	16317	144	8.4	20214	20221	133	7.2								
16324	16327	122	2.9	20398	20415	149	16.4								
16332	16335	124	2.7	20687	20711	181	24.5								
16346	16372	157	26.0	20736	20745	135	9.3								
16636	16645	130	8.6	20746	20772	192	26.2								
16842	17108	364	265.9	20926	20936	134	9.5								
17120	17166	191	46.6	21047	21070	151	22.1								
17177	17276	231	98.8	21585	21610	158	24.9								
17280	17368	202	88.2	21612	21622	140	10.3								
17371	17396	155	25.4	21627	21653	152	25.3								
17400	17435	209	35.3	21658	21663	125	4.8								
17678	17741	232	62.7	21710	21711	121	1.1								
17812	17820	135	7.6	21717	21727	141	9.7								
17836	17836	120	0.1	21733	21741	131	8.2								
17846	17856	129	10.4	21750	21756	128	5.6								
17868	17917	204	48.6	21765	21772	137	6.8								
17990	17991	121	0.9	22093	22114	143	21.4								
18107	18109	122	1.5	22467	22473	135	6.3								
18137	18178	233	40.7	22569	22594	157	24.7								
18213	18235	138	22.2	22600	22609	133	8.9								
18246	18285	188	38.2	23054	23056	125	2.0								
18329	18340	140	11.2	23242	23249	133	6.4								
18341	18342	121	0.7	23253	23266	150	12.5								
18350	18353	128	3.0	23271	23278	132	6.6								
18393	18434	193	41.3	23297	23334	382	36.4								
18437	18444	136	8.0	23482	23487	126	5.2								
18456	18463	132	6.9	23493	23519	172	25.9								
18464	18476	140	12.2	23527	23528	121	1.1								
18511	18522	142	10.3	23540	23548	134	8.0								
18523	18609	249	85.9	23553	23563	147	10.7								
18649	18673	183	24.9	23571	23575	124	3.4								
18740	18764	157	23.9	24226	24229	123	2.8								
18769	18771	122	2.2	24351	24352	120	0.4								
18826	18840	148	14.0	24556	24577	146	21.0								
18847	18854	133	7.5	24961	24985	158	24.5								
18858	18860	122	2.1	25150	25177	174	26.4								
18890	18912	149	22.3	25178	25187	130	8.9								
18913	18916	126	2.6	25188	25300	281	111.5								
18917	19054	261	136.6	25324	25332	129	7.5								
19072	19078	133	5.8	25359	25362	123	2.2								
19079	19080	121	1.1	25362	25362	120	0.6								
19083	19093	140	9.8	25398	25426	174	27.8								
19135	19137	124	2.0												
19176	19183	138	7.1												
19206	19242	194	36.3												
19266	19272	133	6.4												
19312	19317	130	5.8												
19359	19360	120	1.8												
19361	19362	120	0.4												
19385	19409	162	24.4												
19493	19497	123	4.8												
19717	19727	139	9.4												
19730	19742	161	12.0												
19747	19754	138	7.2												
19764	19767	122	2.6												
19767	19769	122	1.4												
19836	19845	139	8.8												
19914	19919	136	5.3												
19922	19954	176	31.6												

Los Angeles 5 Southbound Lane 4 PM 36.0

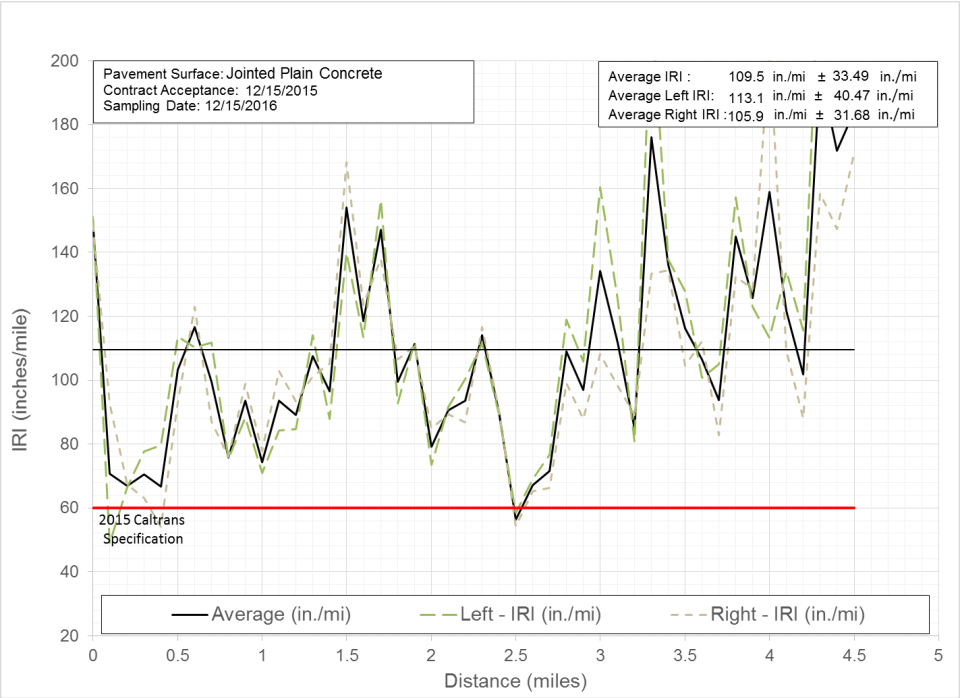

Figure A.52: LA5S4PM36.0

Table A.52: Defective Segments from LA5S4PM36.0

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
19	26	133	6.9	6272	6275	129	3.2	11042	11045	127	3.4	16503	16506	125	2.7
66	72	132	5.8	6349	6357	134	8.2	11060	11064	127	3.9	16522	16604	220	81.8
82	92	138	9.1	6362	6367	131	5.2	11068	11071	123	3.3	16746	16752	131	6.5
93	177	268	84.1	6616	6642	211	25.6	11071	11082	135	10.1	16953	16956	121	3.6
194	299	416	105.1	6763	6791	242	27.9	11116	11142	162	26.0	17322	17329	130	6.5
315	354	191	39.0	6855	6860	134	5.7	11146	11152	131	6.6	17371	17373	121	1.4
359	361	127	2.3	6863	6863	121	0.7	11282	11303	147	20.9	17375	17409	221	34.0
369	370	121	1.1	6930	6938	127	8.3	11520	11556	180	36.8	17420	17464	238	44.6
378	381	125	3.3	7070	7074	122	4.5	11564	11569	124	5.2	17465	17566	246	101.0
383	384	121	1.1	7078	7083	130	5.3	11680	11690	141	9.6	17724	17725	120	0.8
391	408	141	17.6	7086	7088	125	2.1	11728	11749	153	21.4	17759	17761	124	2.0
409	418	142	9.7	7183	7192	141	8.9	11817	11826	134	9.3	17769	17782	137	13.7
419	435	137	15.4	7203	7205	122	2.2	11828	11838	141	10.6	17788	17794	141	6.3
496	497	121	1.1	7207	7207	121	0.6	11863	11867	122	4.3	17824	17906	252	82.1
499	502	131	3.4	7346	7412	272	65.9	12310	12312	122	1.4	17951	17968	136	17.6
504	624	364	120.0	7416	7418	127	2.1	12312	12318	134	6.2	18025	18046	161	20.6
625	626	122	1.4	7422	7451	176	28.8	12322	12334	136	12.1	18046	18050	133	4.4
628	635	126	6.9	7461	7462	121	1.5	12365	12406	201	41.5	18065	18068	127	3.7
719	753	159	33.5	7545	7572	153	27.3	12411	12423	135	11.8	18120	18146	162	26.0
755	760	125	4.9	7684	7710	180	25.8	12426	12438	162	12.0	18158	18341	274	182.7
1326	1361	193	35.4	7787	7792	132	5.0	12444	12450	122	5.6	18342	18353	149	11.1
1473	1481	137	8.0	7857	7954	181	96.7	12500	12541	203	41.5	18360	18362	123	1.7
2741	2764	154	23.0	7988	8026	158	37.5	12541	12542	120	0.2	18463	18497	180	33.5
2770	2773	130	2.8	8034	8192	394	158.1	12561	12563	123	1.7	18513	18568	204	54.8
2915	2943	189	28.3	8206	8311	331	104.5	12564	12589	152	24.9	18596	18638	177	42.0
2961	2985	148	23.3	8339	8339	121	0.7	12593	12594	123	1.9	18668	18686	153	17.4
3216	3240	164	23.9	8340	8386	244	45.5	12621	12690	232	68.5	18720	18721	121	1.1
3288	3318	253	29.3	8409	8452	172	43.4	12714	12737	157	22.5	18723	18731	128	8.0
3355	3379	161	23.1	8507	8539	210	32.2	12754	12809	220	54.3	18773	18779	129	5.3
3403	3405	122	2.1	8745	8800	225	54.9	12823	12824	123	1.3	18790	18799	138	8.6
3408	3466	238	58.2	8806	8844	304	37.9	13252	13257	123	4.5	19032	19067	254	34.9
3473	3483	138	9.8	8844	8968	303	123.9	14084	14095	145	10.3	19078	19191	270	112.4
3513	3525	136	11.6	9003	9053	252	49.9	14102	14108	130	6.7	19954	19985	162	31.7
3526	3551	160	25.3	9065	9090	154	24.9	14134	14138	123	3.9	19994	19995	121	1.5
3559	3589	189	30.0	9126	9203	260	77.7	15034	15057	147	22.8	20026	20037	139	11.2
3632	3653	147	20.7	9220	9226	130	6.0	15065	15100	179	35.7	20038	20040	123	2.0
4112	4113	121	1.5	9229	9232	122	2.8	15156	15176	144	19.9	20042	20051	142	9.4
4167	4194	195	26.5	9235	9268	172	33.7	15202	15203	121	1.1	20057	20063	124	5.8
4247	4249	123	2.0	9270	9275	133	4.9	15205	15215	128	10.0	20064	20067	124	2.4
4500	4503	122	2.2	9328	9389	296	60.4	15241	15269	217	28.5	20113	20115	123	2.3
4773	4805	199	32.3	9468	9503	173	34.4	15271	15314	228	43.2	20160	20167	124	7.1
4872	4879	140	7.5	9596	9598	121	2.5	15350	15356	129	5.6	20169	20171	121	1.1
4907	4909	123	1.9	9625	9630	128	4.8	15358	15376	145	18.1	20223	20232	142	9.1
4955	4956	121	1.3	9634	9646	152	11.2	15390	15414	156	24.4	20245	20246	121	1.0
4961	4970	141	9.1	9655	9659	129	4.5	15460	15476	175	15.7	20334	20371	230	36.6
5005	5026	151	20.8	9665	9680	141	15.4	15478	15507	162	29.3	20381	20412	153	30.5
5130	5136	129	5.2	9725	9728	127	3.0	15596	15605	129	9.3	20412	20555	265	142.5
5137	5138	121	0.7	9784	9833	219	49.0	15922	15923	121	1.1	20567	20591	161	24.4
5139	5155	159	16.6	9834	9859	142	24.9	15931	15941	127	10.0	20605	20629	157	24.1
5396	5399	125	3.0	10135	10161	164	25.8	15979	15980	121	1.5	20650	20651	122	1.1
5648	5661	131	13.0	10164	10207	242	42.6	15988	16009	141	21.3	20653	20674	138	21.3
5907	5923	135	16.0	10215	10215	120	0.2	16034	16075	158	40.4	20707	20713	125	6.2
5950	5982	164	32.1	10225	10279	171	54.1	16087	16090	126	2.9	20870	20918	189	48.1
5985	5998	141	13.2	10285	10314	213	28.6	16092	16121	153	29.4	20931	21054	279	123.9
6000	6013	167	12.5	10505	10512	136	6.6	16149	16151	125	2.2	21068	21097	198	28.5
6069	6072	122	2.8	10514	10531	139	16.8	16152	16181	167	29.2	21110	21550	371	440.7
6076	6102	172	26.2	10531	10537	125	5.2	16227	16247	140	20.3	21563	21565	123	1.9
6120	6147	241	27.9	10702	10703	122	1.3	16259	16295	162	36.7	21567	21582	151	14.5
6193	6197	124	3.4	10704	10706	123	1.6	16306	16307	121	0.7	21630	21653	141	22.9
6198	6209	135	10.7	10849	10853	125	4.1	16369	16400	164	31.7	21669	21672	125	3.1
6244	6269	160	25.9	11020	11031	138	11.6	16403	16459	165	56.3	21673	21682	144	9.6

Table A.52: Defective Segments from LA5S4PM36.0 (2 of 2)

Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)	Start Point (ft.)	Stop Point (ft.)	IRI (in./ mi.)	Dist. (ft.)
21685	21685	120	0.2												
21690	21693	128	2.5												
21697	21727	159	30.9												
21729	21764	165	35.1												
21766	21767	121	0.9												
21797	21840	208	42.8												
22033	22037	132	4.0												
22038	22039	122	1.5												
22050	22058	135	8.4												
22088	22097	136	9.4												
22100	22101	121	1.2												
22104	22105	121	0.9												
22175	22219	252	44.0												
22222	22224	121	2.1												
22234	22237	129	3.4												
22241	22259	157	18.9												
22729	22758	175	29.8												
22840	23069	300	229.8												
23072	23114	186	41.3												
23135	23186	187	50.9												
23203	23229	171	26.0												
23230	23234	125	3.9												
23253	23295	241	42.4												
23299	23303	127	3.8												
23309	23309	120	0.4												
23316	23374	320	58.0												
23392	23432	210	40.3												
23433	23461	186	27.7												
23482	23486	127	4.5												
23512	23582	340	69.6												
23584	23640	159	55.9												
23691	23693	123	1.6												
23693	23699	127	5.9												
23705	23729	166	23.7												
23768	23773	128	4.2												
23773	23789	151	15.7												
23796	23838	372	42.1												
23841	23845	126	3.7												
23856	23903	214	47.2												