North Dakota Department of Transportation

Thomas K. Sorel
Director

Doug Burgum
Governor

November 7, 2018

ADDENDUM 2 – JOB 1

TO: All prospective bidders on Project SC-0900(051), Job No. 1 scheduled for the November 9, 2018 bid opening.

The following plans and request for proposal revision shall be made:

Plan Revisions:
See attached summary from Jason P. Benson, P.E. dated November 7, 2018 for an explanation.

Request for Proposal Revisions:
Add Special Provision SP 706(14) FLEXIBLE SURFACE TOLERANCE.

This addendum is to be incorporated into the bidder's proposal for this project.

for PHILLIP MURDOFF, P.E. – CONSTRUCTION SERVICES ENGINEER
80: jwj
Enclosure

608 East Boulevard Avenue • Bismarck, North Dakota 58505-0700
Information: 1-855-NDROADS (1-855-637-6237) • FAX: (701) 328-0310 • TTY: 711 • dot.nd.gov

CASS COUNTY
GOVERNMENT

Highway Department

Jason Benson, P.E.
County Engineer

Thomas B. Soucy, P.E.
Deputy County Engineer

Blaine Laaveg
Superintendent

November 7, 2018

ADDENDUM NO. 2

TO: ALL PROSPECTIVE BIDDERS ON THE NDDOT PROJECT NUMBER SC-0900(051) PCN 21950, SCHEDULED FOR THE NOVEMBER 9TH, 2018 BID OPENING.

ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON THE BID. FAILURE TO DO SO MAY SUBJECT THE BIDDER TO DISQUALIFICATION. THIS ADDENDUM FORM IS PART OF THE BIDDING DOCUMENTS AND MODIFIES THEM AS FOLLOWS:

Add in Special Provision SP 706(14) to the proposal of the NDDOT project number SC-0900(051) PCN 21950.

Sincerely,

Jason P. Benson
Cass County Engineer

J:\Admin-Eng\Projects\C4 & C38 PAVE\SC-0900(051) PCN 21950 Addendum No 1.doc

1201 Main Avenue West
West Fargo, North Dakota
58078-1301

701-298-2370
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NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FLEXIBLE PAVEMENT SURFACE TOLERANCE

Project # SC-0900(051) – PCN 21950

DESCRIPTION

This provision details the surface tolerance requirements, corrective actions, performance incentives, and contract price adjustments for flexible pavement.

CONSTRUCTION REQUIREMENTS

A. Applicable Areas and Exceptions.

The pavement smoothness will be determined by profiling the finished surface of the mainline pavement. All finished bituminous surfaces will be profiled with the following exceptions:

1. Bridge decks and/or approach slabs and 150 feet on either side.
2. Side roads and approaches.
3. Shoulders, ramps and gore areas.
4. At-grade railroad crossings and 150 feet on either side.
5. Beginning and end of the project and 50 feet on either side of these boundaries.
6. 50 feet from areas that are not receiving surfacing.
7. Where safety and roadway geometrics do not allow the proper operating speed for the profiler to collect data. These areas will be determined by the Engineer.

On surfaces exempt from the profile testing, the Engineer will determine the pavement smoothness in accordance with Section 430.04 K, “Tolerances”.

B. Profiler.

The Engineer will furnish and operate the data collection equipment. The smoothness of the final roadway surface profile will be measured and analyzed using the International Roughness Index (IRI) to the nearest 0.1 inch. The Engineer will use a Class 1 profiler meeting ASTM E 950.

C. Operation.

The Engineer will use an inertial profiler to collect the profile in each wheel path of each lane.

The Engineer will trace the profile at approximately 31 and 97 inches, measured from the left edge of the lane, as determined by the direction of traffic. Provide traffic control for 500 feet beyond the ends of the project to facilitate the collection of profile data.

The data will be marked and labeled at the beginning and end of each trace, and event markers as identified by the Engineer.

Each trace will be labeled showing:

- Project;
- Location;
- Lane;
- Date tested; and
- Operator's name.

The Engineer will not test the roadway between November 30 and May 15. The Engineer will not test when the ambient temperature is below 32°F, or while it is raining or under inclement weather conditions. The Engineer will test when the pavement is dry and at an agreed upon time between the Engineer and the Contractor.

Prepare the surface for profile collection to ensure a clean surface for accurate testing. The Engineer will collect the profile at the agreed upon time, regardless of the condition of the final surface.

After the final lift of pavement is complete, schedule a time for the profile to be collected. The Engineer will collect the profile within 5 working days after notification. Data will be collected and the results submitted to the contractor a maximum of 5 working days after the testing date.

If the final lift of pavement cannot be completed before November 30, the Engineer will collect data for all portions of the roadway that have the final lift in place. Profile data for the unfinished portion of the roadway will be collected after May 15 of the following year.

D. Evaluation.

A lot is defined as a 528 foot road segment, one lane wide The Engineer will include a partial lot less than or equal to 370.0 feet in the previous lot. The Engineer will treat a lot greater than 370.0 feet as an independent lot. The MRI will be determined by averaging the IRI values from the right and left wheel paths to the nearest 0.1 inch.

The Engineer will evaluate the data and the data will remain the property of the Department. The MRI data will be used to determine performance incentives, contract price adjustments, and the need for corrective action.

E. Corrective Actions.

Areas that would result in a contract price adjustment may be ground to a lower lot MRI. If grinding occurs and results in an MRI of less than 50.0, the Engineer will not apply a performance incentive to that lot. Lots with an initial MRI of 42.0 or less will receive a performance incentive based on the initial readings, before grinding.

Submit a detailed corrective action plan. Corrective action can include a mill and overlay or diamond grinding. Perform corrective action in accordance with the relevant specifications. If the corrective action includes diamond grinding, apply a fog coat to the ground areas.

Do not perform corrective actions until the Engineer has approved the corrective action plan.

Grind lots to a maximum MRI of 70.0 in /mile.

The Engineer will collect a second profile a maximum of 5 working days after the completion of corrective action. If additional corrective action is necessary, the Engineer will apply a liquidated damage of $1,500 per trip for each profile collected after the second profile.

Perform corrective action on surface irregularities that exceed the requirements of Section 430.04 K, “Tolerances

F. Grinding.

Use equipment that does not cause strain or damage to the underlying surface of the pavement. Do not cause excessive ravels, aggregate fractures, or disturbance of the joints.

Perform grinding in the longitudinal direction so grinding begins and ends at lines normal to the pavement centerline. Do not overlap more than 2 inches between passes and ensure the depth variance between adjacent passes is less than 1/8 inch. Feather the grinding at the beginning and end of each pass.

Grind high shoulders to provide drainage and safety.

Grind the full width of the lane and daylight grinding on the shoulder by performing a feather pass.

Grind a minimum length of 30 feet. Join grind sections if the distance between grind sections is less than 60 feet.

When grinding in areas with speeds less than 45 MPH, areas with curb and gutter, and areas adjacent to waterways continuously collect all slurry or residue resulting from the grinding operation. Dispose of the slurry or residue as specified in Section 107.17, “Removed Material”.

BASIS OF PAYMENT

A. Liquidated Damages.

If the project would be considered substantially complete, as specified in Section 108.07 B, “Failure to Complete within the Contract Time” and corrective action is required, the Engineer may suspend time charges and the assessment of liquidated damages for up to 21 calendar days after the contract time has expired. If the corrective action is not complete within 21 calendar days after the contract time has expired, the Engineer will restart time charges and will assess liquidated damages.

B. Ride Quality.

The Engineer will pay a performance incentive for ride quality based on Table 1.

Table 1
Ride Quality Performance Incentives

MRI Range	Performance Incentive per Lot
≤ 32.0	$400
32.1 to 36.0	$300
36.1 to 39.0	$200
39.1 to 42.0	$100
42.1 to 50.0	$0

The Engineer will process contract price adjustments for ride quality based on Table 2.

Table 2
Ride Quality Contract Price Adjustments

MRI Range	Contract Price Adjustment per Lot
42.1 to 50.0	$0
50.1 to 57.0	($100)
57.1 to 64.0	($200)
64.1 to 70.0	($400)
70.1 ≥	Corrective Action

C. MISCELLANEOUS

Include costs necessary to prepare the roadway for testing in the contract unit price for asphalt pavement items.

Traffic control items, including flagging and pilot cars will be paid for according to Section 109.03, “Compensation for Contract Revisions”.

IRI DATA FOR PCN 21950 PROJECT NO. SC-0900(051)					
HWY 38, SURVEY DATA COLLECTION DATE = 9/06/2018					
NORTHBOUND SURVEY					
HWY	START STA.	END STA.	IRI_LEFT WHEEL PATH	IRI_RIGHT WHEEL PATH	IRI_AVERAGE
38	1+50	6+78	182.0	179.4	180.7
38	6+78	12+06	122.3	147.1	134.7
38	12+06	17+34	93.4	89.6	91.5
38	17+34	22+62	78.7	78.3	78.5
38	22+62	27+90	116.3	124.7	120.5
38	27+90	33+18	91.1	94.2	92.7
38	33+18	38+46	102.8	90.9	96.9
38	38+46	43+74	130.2	105.8	118.0
38	43+74	49+02	80.7	67.9	74.3
38	49+02	54+30	99.1	90.5	94.8
38	54+30	59+58	86.5	69.2	77.9
38	59+58	64+86	91.1	97.4	94.3
38	64+86	70+14	88.8	92.2	90.5
38	70+14	75+42	77.5	67.2	72.4
38	75+42	80+70	77.4	76.0	76.7
38	80+70	85+98	114.7	121.1	117.9
38	85+98	91+26	71.4	80.1	75.8
38	91+26	96+54	79.7	77.6	78.7
38	96+54	101+82	61.8	62.1	62.0
38	101+82	107+10	113.9	95.6	104.8
38	107+10	112+38	105.2	101.2	103.2
38	112+38	117+66	97.7	88.5	93.1
38	117+66	122+94	69.0	73.9	71.5
38	122+94	128+22	59.0	57.7	58.4
38	128+22	133+50	68.2	67.4	67.8
38	133+50	138+78	79.4	78.0	78.7
38	138+78	144+06	62.4	62.4	62.4
38	144+06	149+34	71.5	75.2	73.4
38	149+34	154+62	105.0	94.6	99.8
38	154+62	159+90	111.9	110.7	111.3
38	159+90	165+18	88.6	80.9	84.8
38	165+18	170+46	64.6	71.0	67.8
38	170+46	175+74	88.3	65.4	76.9
38	175+74	181+02	66.1	85.8	76.0
38	181+02	186+30	56.9	69.4	63.2

IRI DATA FOR PCN 21950 PROJECT NO. SC-0900(051)					
HWY 38, SURVEY DATA COLLECTION DATE = 9/06/2018					
NORTHBOUND SURVEY					
HWY	START STA.	END STA.	IRI_LEFT WHEEL PATH	IRI_RIGHT WHEEL PATH	IRI_AVERAGE
38	186+30	191+58	76.1	85.7	80.9
38	191+58	196+86	69.3	81.7	75.5
38	196+86	202+14	75.0	69.7	72.4
38	202+14	207+42	85.2	89.9	87.6
38	207+42	212+70	87.6	83.9	85.8
38	212+70	217+98	57.2	61.2	59.2
38	217+98	223+26	76.9	74.5	75.7
38	223+26	228+54	61.8	74.3	68.1
38	228+54	233+82	81.9	76.9	79.4
38	233+82	239+10	85.1	96.0	90.6
38	239+10	244+38	75.4	67.3	71.4
38	244+38	249+66	60.9	66.5	63.7
38	249+66	254+94	77.8	80.1	79.0
38	254+94	260+22	106.3	115.0	110.7
38	260+22	265+50	81.0	96.5	88.8
38	265+50	270+78	78.1	70.1	74.1
38	270+78	276+06	74.0	65.4	69.7
38	276+06	281+34	61.9	66.1	64.0
38	281+34	286+62	80.5	83.1	81.8
38	286+62	291+90	98.2	114.2	106.2
38	291+90	297+18	78.1	74.8	76.5
38	297+18	302+46	107.0	89.2	98.1
38	302+46	307+74	72.2	59.9	66.1
38	307+74	313+02	96.7	86.2	91.5
38	313+02	318+30	75.6	80.6	78.1
38	318+30	323+58	93.3	79.3	86.3
38	323+58	328+86	71.4	78.0	74.7
38	328+86	334+14	107.4	115.3	111.4
38	334+14	339+42	58.5	63.7	61.1
38	339+42	344+70	55.9	64.4	60.2
38	344+70	349+98	81.0	66.8	73.9
38	349+98	355+26	69.8	66.8	68.3
38	355+26	360+54	86.2	78.2	82.2
38	360+54	365+82	60.8	58.4	59.6
38	365+82	371+10	61.6	66.3	64.0

IRI DATA FOR PCN 21950 PROJECT NO. SC-0900(051)					
HWY 38, SURVEY DATA COLLECTION DATE = 9/06/2018					
NORTHBOUND SURVEY					
HWY	START STA.	END STA.	IRI_LEFT WHEEL PATH	IRI_RIGHT WHEEL PATH	IRI_AVERAGE
38	371+10	376+38	55.5	51.6	53.6
38	376+38	381+66	52.6	60.3	56.5
38	381+66	386+94	67.3	81.3	74.3
38	386+94	392+22	97.6	89.9	93.8
38	392+22	397+50	63.9	54.4	59.2
38	397+50	402+78	91.1	76.3	83.7
38	402+78	408+06	98.8	124.9	111.9
38	408+06	413+34	55.7	59.7	57.7
38	413+34	418+62	66.6	61.1	63.9
38	418+62	423+90	95.2	95.4	95.3
38	423+90	429+18	94.5	81.7	88.1
38	429+18	434+46	98.8	81.0	89.9
38	434+46	439+74	69.7	73.0	71.4
38	439+74	445+02	105.1	101.1	103.1
38	445+02	450+30	90.4	83.7	87.1
38	450+30	455+58	106.9	94.3	100.6
38	455+58	460+86	108.7	99.6	104.2
38	460+86	466+14	102.6	94.0	98.3
38	466+14	471+42	79.5	65.0	72.3
38	471+42	476+70	100.8	72.3	86.6
38	476+70	481+98	88.4	73.6	81.0
38	481+98	487+26	178.7	133.6	156.2
38	487+26	492+54	158.4	163.6	161.0
38	492+54	497+82	106.5	105.7	106.1
38	497+82	503+10	95.6	109.3	102.5
38	503+10	508+38	63.6	63.3	63.5
38	508+38	513+66	61.9	61.0	61.5
38	513+66	518+94	49.7	58.4	54.1
38	518+94	524+22	69.9	67.7	68.8
38	524+22	529+50	63.8	54.8	59.3
38	529+50	534+78	76.7	86.5	81.6
38	534+78	540+06	74.1	83.9	79.0
38	540+06	545+34	66.2	72.6	69.4
38	545+34	550+62	63.8	69.8	66.8
38	550+62	555+90	63.5	65.2	64.4

IRI DATA FOR PCN 21950 PROJECT NO. SC-0900(051)					
HWY 38, SURVEY DATA COLLECTION DATE = 9/06/2018					
NORTHBOUND SURVEY					
HWY	START STA.	END STA.	IRI_LEFT WHEEL PATH	IRI_RIGHT WHEEL PATH	IRI_AVERAGE
38	555+90	561+18	64.0	64.0	64.0
38	561+18	566+46	69.7	64.3	67.0
38	566+46	571+74	71.1	70.9	71.0
38	571+74	577+02	56.0	50.3	53.2
38	577+02	582+30	63.1	55.9	59.5
38	582+30	587+58	69.7	64.0	66.9
38	587+58	592+86	74.0	60.4	67.2
38	592+86	598+14	66.6	73.5	70.1
38	598+14	603+42	80.3	76.3	78.3
38	603+42	608+70	55.3	56.6	56.0
38	608+70	613+98	78.9	84.0	81.5
38	613+98	619+26	78.4	91.3	84.9
38	619+26	624+54	53.8	68.6	61.2
38	624+54	629+82	59.5	68.4	64.0
38	629+82	635+10	57.2	65.9	61.6
38	635+10	640+38	60.7	61.9	61.3
38	640+38	645+66	68.9	68.7	68.8
38	645+66	650+94	63.0	66.5	64.8
38	650+94	656+22	68.0	69.5	68.8
38	656+22	661+50	66.5	68.2	67.4
38	661+50	666+78	67.0	78.9	73.0
38	666+78	672+06	63.7	72.5	68.1
38	672+06	677+34	57.1	80.0	68.6
38	677+34	682+62	57.7	70.6	64.2
38	682+62	687+90	97.8	85.4	91.6
38	687+90	693+18	75.4	66.1	70.8
38	693+18	698+46	48.5	67.4	58.0
38	698+46	703+74	63.9	75.3	69.6
38	703+74	709+02	49.9	66.9	58.4
38	709+02	714+30	58.0	66.5	62.3
38	714+30	719+58	81.6	82.4	82.0
38	719+58	724+86	66.0	63.0	64.5
38	724+86	730+14	79.6	69.0	74.3
38	730+14	735+42	67.2	69.5	68.4
38	735+42	740+70	66.3	77.5	71.9

IRI DATA FOR PCN 21950 PROJECT NO. SC-0900(051)					
HWY 38, SURVEY DATA COLLECTION DATE = 9/06/2018					
NORTHBOUND SURVEY					
HWY	START STA.	END STA.	IRI_LEFT WHEEL PATH	IRI_RIGHT WHEEL PATH	IRI_AVERAGE
38	740+70	745+98	72.2	72.5	72.4
38	745+98	751+26	72.1	70.3	71.2
38	751+26	756+54	80.3	83.8	82.1
38	756+54	761+82	45.8	46.9	46.4
38	761+82	767+10	55.6	52.4	54.0
38	767+10	772+38	56.0	56.1	56.1
38	772+38	777+66	67.1	77.3	72.2
38	777+66	782+94	63.2	72.0	67.6
38	782+94	788+22	52.4	61.3	56.9
38	788+22	793+50	61.9	63.0	62.5
38	793+50	798+78	67.3	83.0	75.2
38	798+78	804+06	69.0	71.2	70.1
38	804+06	809+34	82.0	81.4	81.7
38	809+34	814+62	65.8	73.7	69.8
38	814+62	819+90	57.6	64.6	61.1
38	819+90	825+18	55.5	65.0	60.3
38	825+18	830+46	64.2	65.0	64.6
38	830+46	835+74	60.5	64.4	62.5
38	835+74	841+02	60.5	69.3	64.9
38	841+02	846+30	50.0	53.4	51.7
38	846+30	851+58	58.2	59.7	59.0
38	851+58	856+86	56.8	63.9	60.4
38	856+86	862+14	62.7	70.1	66.4
38	862+14	867+42	45.5	63.7	54.6
38	867+42	872+70	49.6	62.0	55.8
38	872+70	877+98	59.8	77.5	68.7
38	877+98	883+26	61.4	79.2	70.3
38	883+26	888+54	52.1	66.2	59.2
38	888+54	893+82	63.9	71.8	67.9
38	893+82	897+61	115.5	104.1	109.8

IRI DATA FOR PCN 21950 PROJECT NO. SC-0900(051)					
HWY 38, SURVEY DATA COLLECTION DATE = 9/06/2018					
SOUTHBOUND SURVEY					
HWY	START STA.	END STA.	IRI_LEFT WHEEL PATH	IRI_RIGHT WHEEL PATH	IRI_AVERAGE
38	1+32	5+18	142.1	130.9	136.5
38	5+18	10+46	98.4	76.4	87.4
38	10+46	15+74	96.6	88.9	92.8
38	15+74	21+02	76.2	73.0	74.6
38	21+02	26+30	113.0	86.7	99.9
38	26+30	31+58	92.4	93.9	93.2
38	31+58	36+86	86.5	92.7	89.6
38	36+86	42+14	125.7	125.3	125.5
38	42+14	47+42	72.3	80.0	76.2
38	47+42	52+70	81.7	85.7	83.7
38	52+70	57+98	95.9	95.8	95.9
38	57+98	63+26	72.8	77.1	75.0
38	63+26	68+54	62.9	61.9	62.4
38	68+54	73+82	65.2	73.6	69.4
38	73+82	79+10	72.1	66.7	69.4
38	79+10	84+38	81.8	77.8	79.8
38	84+38	89+66	91.6	88.3	90.0
38	89+66	94+94	75.1	65.4	70.3
38	94+94	100+22	71.3	69.8	70.6
38	100+22	105+50	108.1	98.9	103.5
38	105+50	110+78	79.1	75.7	77.4
38	110+78	116+06	154.7	149.6	152.2
38	116+06	121+34	60.2	71.5	65.9
38	121+34	126+62	72.3	65.1	68.7
38	126+62	131+90	54.7	73.5	64.1
38	131+90	137+18	83.6	85.4	84.5
38	137+18	142+46	75.4	65.2	70.3
38	142+46	147+74	70.0	67.7	68.9
38	147+74	153+02	52.6	68.5	60.6
38	153+02	158+30	130.7	94.9	112.8
38	158+30	163+58	72.0	70.9	71.5
38	163+58	168+86	59.4	51.7	55.6
38	168+86	174+14	100.3	122.0	111.2
38	174+14	179+42	85.0	78.4	81.7

IRI DATA FOR PCN 21950 PROJECT NO. SC-0900(051)					
HWY 38, SURVEY DATA COLLECTION DATE = 9/06/2018					
SOUTHBOUND SURVEY					
HWY	START STA.	END STA.	IRI_LEFT WHEEL PATH	IRI_RIGHT WHEEL PATH	IRI_AVERAGE
38	179+42	184+70	69.8	68.7	69.3
38	184+70	189+98	64.2	56.8	60.5
38	189+98	195+26	77.8	76.6	77.2
38	195+26	200+54	82.7	70.0	76.4
38	200+54	205+82	84.3	73.4	78.9
38	205+82	211+10	101.8	113.1	107.5
38	211+10	216+38	69.0	77.6	73.3
38	216+38	221+66	78.0	73.2	75.6
38	221+66	226+94	77.9	87.0	82.5
38	226+94	232+22	94.7	106.6	100.7
38	232+22	237+50	82.5	77.0	79.8
38	237+50	242+78	94.0	66.5	80.3
38	242+78	248+06	71.2	73.4	72.3
38	248+06	253+34	84.2	83.1	83.7
38	253+34	258+62	122.8	95.0	108.9
38	258+62	263+90	83.2	78.6	80.9
38	263+90	269+18	99.1	101.1	100.1
38	269+18	274+46	91.9	103.1	97.5
38	274+46	279+74	66.3	68.2	67.3
38	279+74	285+02	85.6	91.2	88.4
38	285+02	290+30	100.1	97.4	98.8
38	290+30	295+58	98.4	82.0	90.2
38	295+58	300+86	105.6	103.0	104.3
38	300+86	306+14	89.2	74.9	82.1
38	306+14	311+42	114.3	102.8	108.6
38	311+42	316+70	83.5	90.4	87.0
38	316+70	321+98	87.2	88.3	87.8
38	321+98	327+26	72.6	69.6	71.1
38	327+26	332+54	101.9	105.6	103.8
38	332+54	337+82	68.1	66.7	67.4
38	337+82	343+10	60.5	67.7	64.1
38	343+10	348+38	61.4	83.4	72.4
38	348+38	353+66	86.1	89.8	88.0
38	353+66	358+94	91.2	90.3	90.8
38	358+94	364+22	72.9	78.3	75.6

IRI DATA FOR PCN 21950 PROJECT NO. SC-0900(051)					
HWY 38, SURVEY DATA COLLECTION DATE = 9/06/2018					
SOUTHBOUND SURVEY					
HWY	START STA.	END STA.	IRI_LEFT WHEEL PATH	IRI_RIGHT WHEEL PATH	IRI_AVERAGE
38	364+22	369+50	88.2	84.9	86.6
38	369+50	374+78	70.9	66.6	68.8
38	374+78	380+06	76.1	79.9	78.0
38	380+06	385+34	81.5	68.6	75.1
38	385+34	390+62	75.2	79.7	77.5
38	390+62	395+90	71.8	76.1	74.0
38	395+90	401+18	107.0	99.4	103.2
38	401+18	406+46	84.2	69.6	76.9
38	406+46	411+74	78.5	60.8	69.7
38	411+74	417+02	76.4	67.2	71.8
38	417+02	422+30	76.9	63.2	70.1
38	422+30	427+58	119.2	113.5	116.4
38	427+58	432+86	110.7	96.8	103.8
38	432+86	438+14	83.5	104.0	93.8
38	438+14	443+42	111.0	125.7	118.4
38	443+42	448+70	109.1	119.6	114.4
38	448+70	453+98	103.9	106.5	105.2
38	453+98	459+26	109.8	103.5	106.7
38	459+26	464+54	83.5	90.7	87.1
38	464+54	469+82	91.0	112.7	101.9
38	469+82	475+10	97.9	90.1	94.0
38	475+10	480+38	112.7	105.5	109.1
38	480+38	485+66	111.6	128.1	119.9
38	485+66	490+94	122.2	119.6	120.9
38	490+94	496+22	72.9	83.8	78.4
38	496+22	501+50	68.1	89.2	78.7
38	501+50	506+78	63.5	80.6	72.1
38	506+78	512+06	67.6	74.8	71.2
38	512+06	517+34	65.1	59.8	62.5
38	517+34	522+62	57.6	55.8	56.7
38	522+62	527+90	53.9	63.3	58.6
38	527+90	533+18	65.3	67.4	66.4
38	533+18	538+46	63.1	64.4	63.8
38	538+46	543+74	62.9	72.4	67.7
38	543+74	549+02	49.6	54.5	52.1

IRI DATA FOR PCN 21950 PROJECT NO. SC-0900(051)					
HWY 38, SURVEY DATA COLLECTION DATE = 9/06/2018					
SOUTHBOUND SURVEY					
HWY	START STA.	END STA.	IRI_LEFT WHEEL PATH	IRI_RIGHT WHEEL PATH	IRI_AVERAGE
38	549+02	554+30	50.1	55.2	52.7
38	554+30	559+58	58.4	63.2	60.8
38	559+58	564+86	56.1	61.8	59.0
38	564+86	570+14	65.5	63.2	64.4
38	570+14	575+42	55.6	60.2	57.9
38	575+42	580+70	67.7	67.9	67.8
38	580+70	585+98	57.4	54.0	55.7
38	585+98	591+26	59.2	63.4	61.3
38	591+26	596+54	70.0	76.4	73.2
38	596+54	601+82	59.5	76.7	68.1
38	601+82	607+10	70.3	72.3	71.3
38	607+10	612+38	70.7	70.5	70.6
38	612+38	617+66	57.5	59.9	58.7
38	617+66	622+94	71.1	82.5	76.8
38	622+94	628+22	78.9	89.3	84.1
38	628+22	633+50	76.5	71.7	74.1
38	633+50	638+78	64.4	64.1	64.3
38	638+78	644+06	72.7	65.8	69.3
38	644+06	649+34	75.7	84.9	80.3
38	649+34	654+62	75.8	83.9	79.9
38	654+62	659+90	72.3	82.1	77.2
38	659+90	665+18	92.2	113.8	103.0
38	665+18	670+46	83.9	99.3	91.6
38	670+46	675+74	58.1	82.8	70.5
38	675+74	681+02	53.6	72.1	62.9
38	681+02	686+30	72.9	72.5	72.7
38	686+30	691+58	67.8	83.7	75.8
38	691+58	696+86	61.7	78.5	70.1
38	696+86	702+14	61.5	81.9	71.7
38	702+14	707+42	52.6	78.9	65.8
38	707+42	712+70	43.7	64.7	54.2
38	712+70	717+98	64.2	91.2	77.7
38	717+98	723+26	54.7	80.1	67.4
38	723+26	728+54	54.8	70.6	62.7
38	728+54	733+82	47.0	66.0	56.5

IRI DATA FOR PCN 21950 PROJECT NO. SC-0900(051)					
HWY 38, SURVEY DATA COLLECTION DATE = 9/06/2018					
SOUTHBOUND SURVEY					
HWY	START STA.	END STA.	IRI_LEFT WHEEL PATH	IRI_RIGHT WHEEL PATH	IRI_AVERAGE
38	733+82	739+10	61.4	96.8	79.1
38	739+10	744+38	56.3	78.2	67.3
38	744+38	749+66	54.2	66.4	60.3
38	749+66	754+94	72.9	98.0	85.5
38	754+94	760+22	50.5	65.7	58.1
38	760+22	765+50	52.6	81.4	67.0
38	765+50	770+78	65.9	72.2	69.1
38	770+78	776+06	53.8	70.5	62.2
38	776+06	781+34	62.3	85.0	73.7
38	781+34	786+62	51.9	73.1	62.5
38	786+62	791+90	64.7	91.9	78.3
38	791+90	797+18	58.4	72.0	65.2
38	797+18	802+46	57.4	88.8	73.1
38	802+46	807+74	80.4	94.8	87.6
38	807+74	813+02	73.0	100.9	87.0
38	813+02	818+30	58.3	71.2	64.8
38	818+30	823+58	81.6	75.7	78.7
38	823+58	828+86	52.3	68.0	60.2
38	828+86	834+14	71.9	73.6	72.8
38	834+14	839+42	68.9	74.1	71.5
38	839+42	844+70	57.2	73.1	65.2
38	844+70	849+98	50.0	64.9	57.5
38	849+98	855+26	61.1	68.7	64.9
38	855+26	860+54	71.5	86.3	78.9
38	860+54	865+82	54.5	78.0	66.3
38	865+82	871+10	46.7	73.4	60.1
38	871+10	876+38	59.2	78.1	68.7
38	876+38	881+66	47.5	57.6	52.6
38	881+66	886+94	53.5	59.8	56.7
38	886+94	892+22	54.1	70.1	62.1
38	892+22	897+50	104.7	120.0	112.4