Alaska Digita ng for Asset Ma ent

PHOTOLOG

Alaska Department of Transportation & Public Facilities

Alaska Digital Imaging Project

PHOTOLOG

Maintenance & Operations Division
Maintenance Management System
Division of Program Development
Transportation Data Services
Statewide GIS/Mapping Section

Mandli Communications

Project Scope

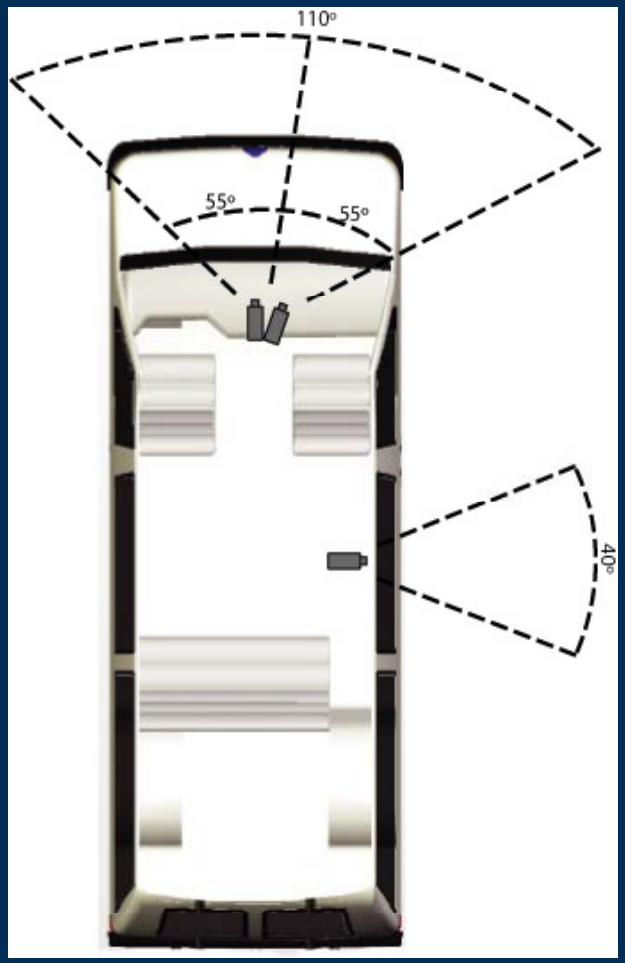
- **Capture Digital Representation of the Road Network**
- **Build Reference Network (Centerlines)**
- **Coverage: State-Owned Roads (connected road network), then expand to higher functionally classified roads**
- **Extract asset management info: location referencing & attributes**
- **Deliverables**
  - **Image Data every 26.4’ – both directions**
  - **GPS Data (Spatial Data)**
  - **Web Based Image Viewer**
  - **Desktop Viewer / Feature Extraction Software**
  - **Optional Feature Data Extraction Services**

System Specs

- **Three Camera System: 200 images per mile**
- **Real Time GPS (When Available): 1-3 meter accuracy**
- **Post Processing Capability: CORS & OmniSTAR satellite broadcast**
- **INS (carry through GPS loss)**
- **DMI – non contact Doppler**
- **Real Time Map Display**
- **200 pictures per Mile (every 26.4 ft) both Directions**

System Cameras

- Uses two (2) forward facing cameras with chip resolutions of 1600 x 1200 pixels spanning an angle of 110 degrees.
- One of these cameras will provide a zoomed in downward angled view facing to the front of the vehicle.
- A third camera will provide a view facing 90-degrees to the right with a chip resolution of 1300 x 1030 pixels.



Camera Example

Forward Facing

Forward Side

Side (ROW) 90

Down Facing

Inertial Unit

Applanix

- **Sub-meter Accuracy**
- **Real Time Differential**
- **Inertial Unit For Signal Outages**
- **Dual antenna/receiver for increased positional accuracy**
- **Integrated DMI**
- **Accuracy Reporting**

GPS Units

Trimble Ag GPS 132

- **Used for real time differential correction**
- **FM Radio Beacon Receiver**
- **Data stream to the Applanix unit**

Portable Base Station

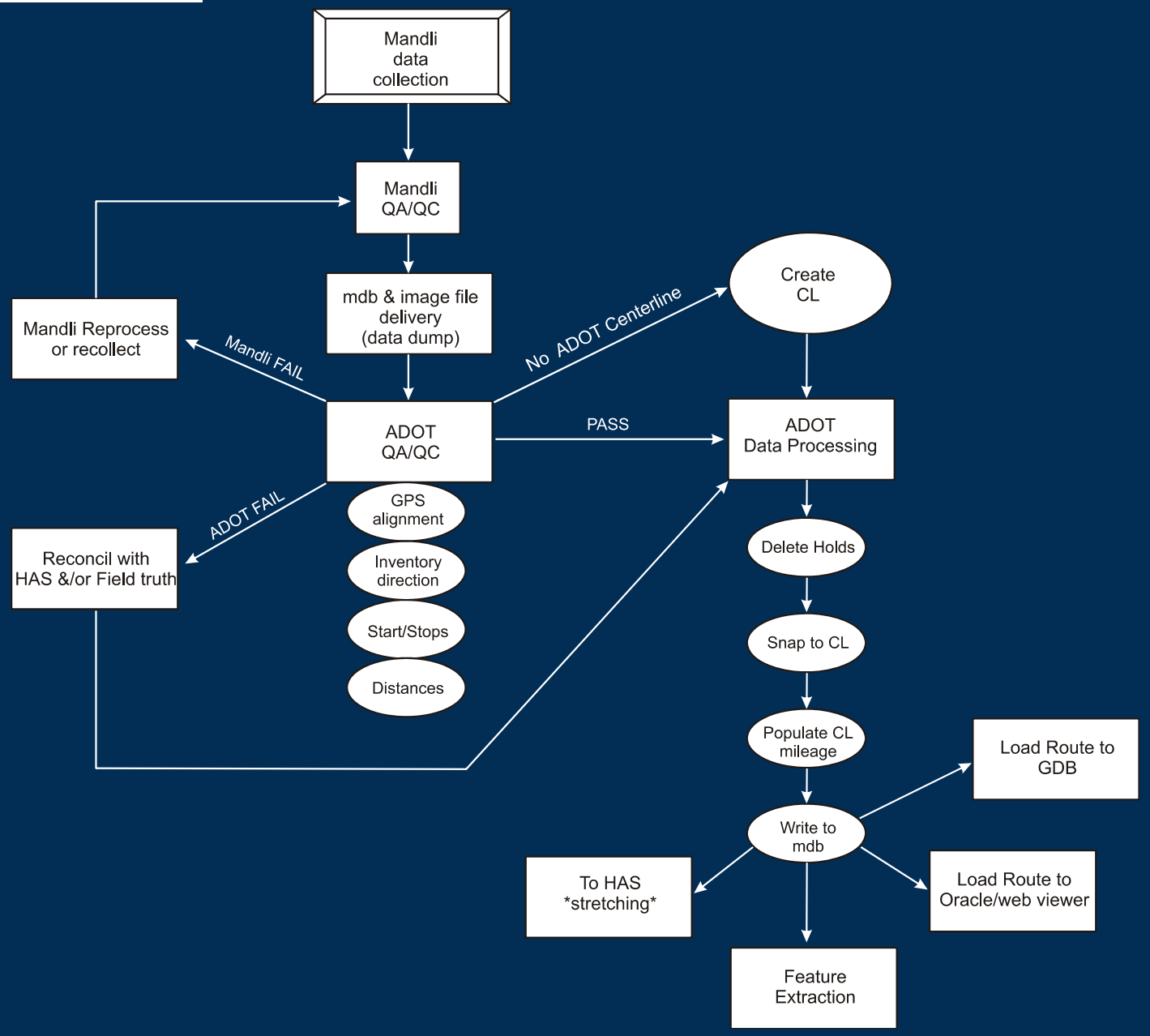
Novatel Portable Base Station

- 2 Units
- Novatel DL-V3
- 2 GB Compact Flash Card
- 1 Hz. Collection
- 12 V Battery Power
- RINEX File Conversion

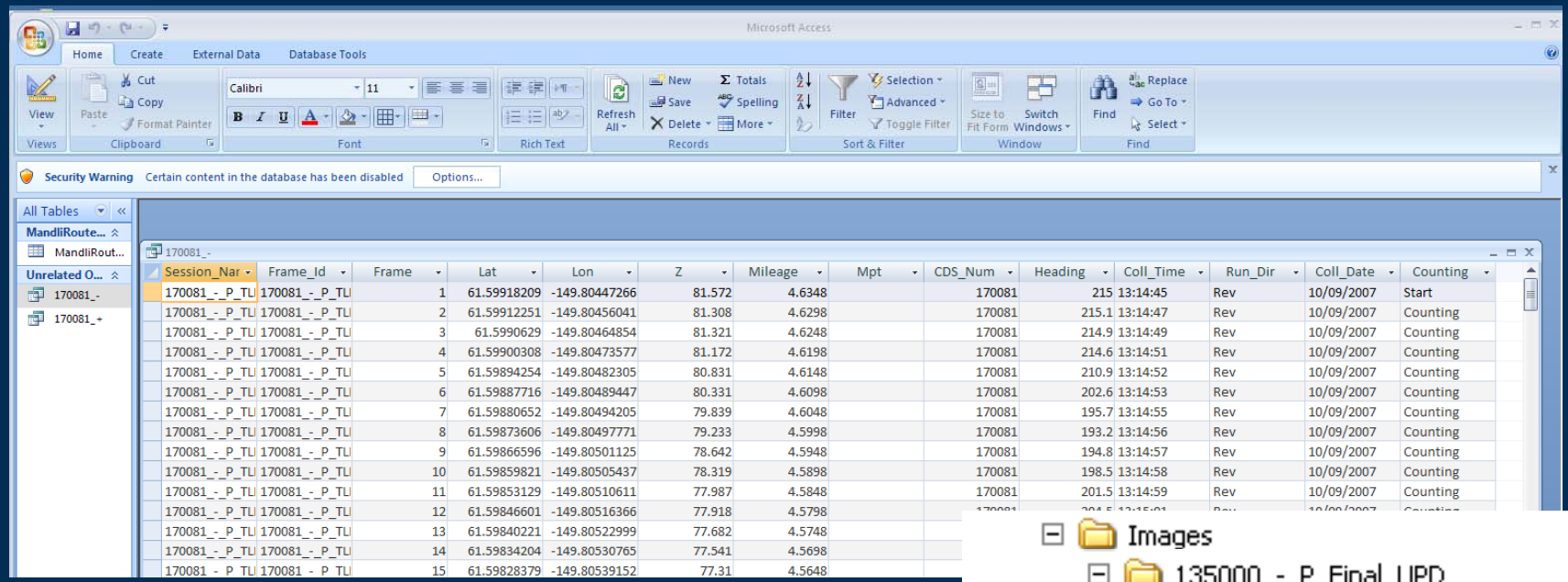
Portable Base Station

Collection Area

Data Work Flow

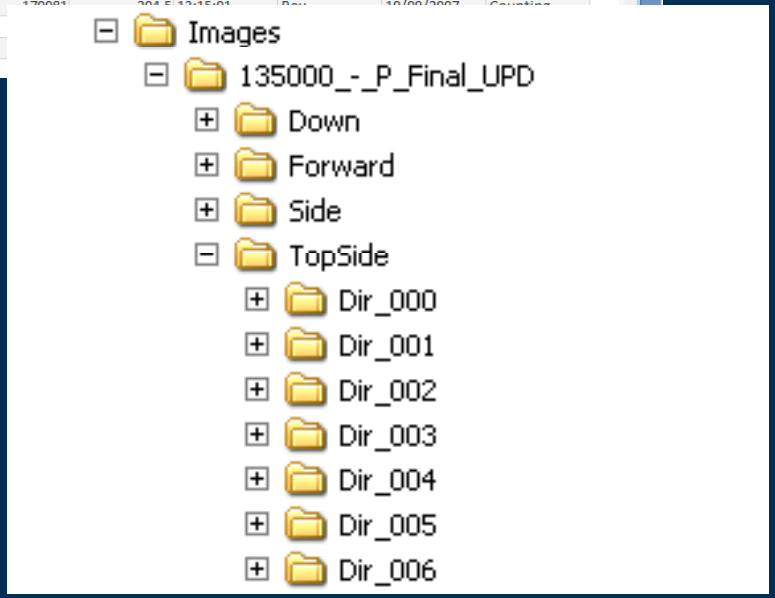


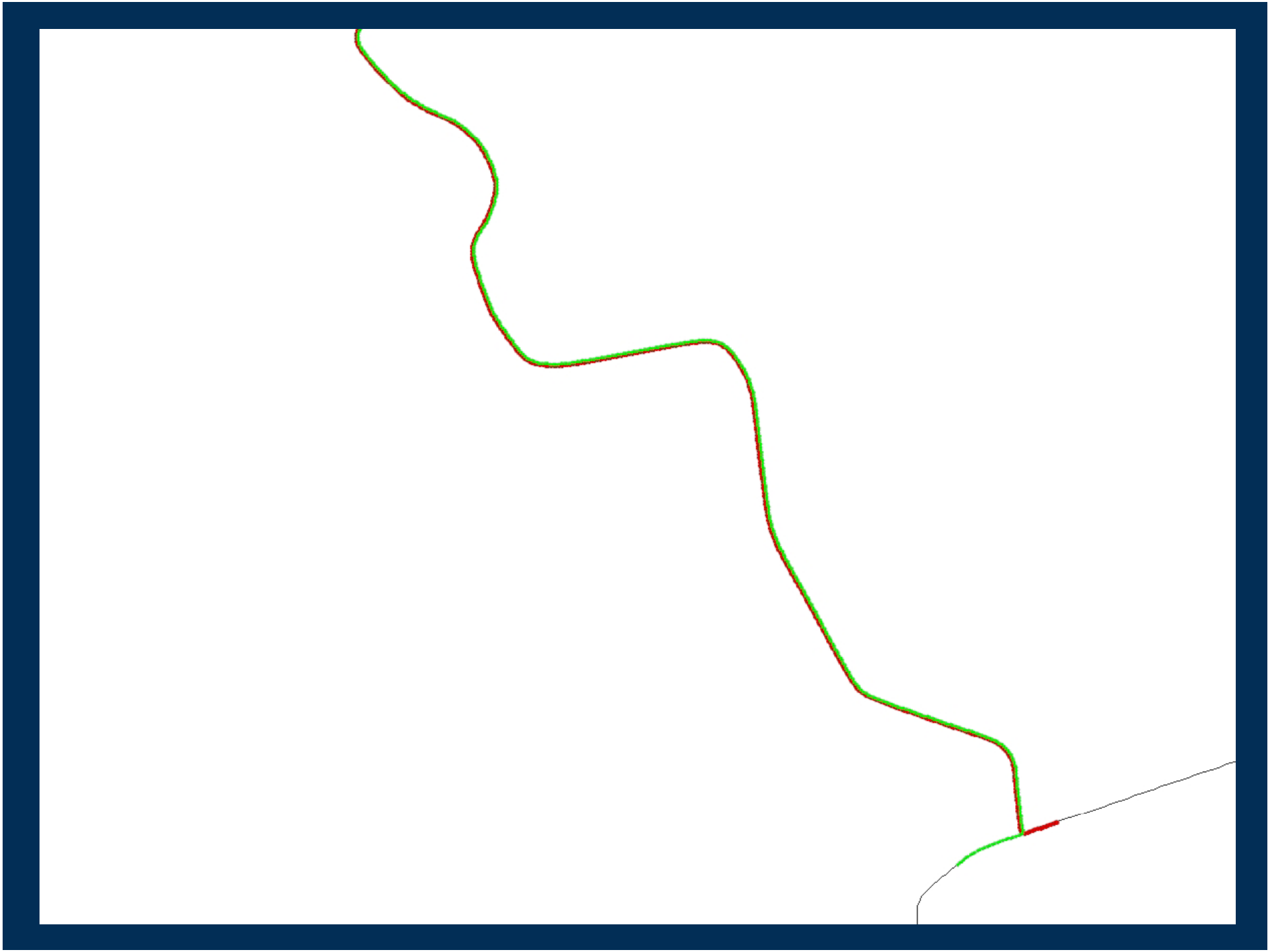
Deliverables

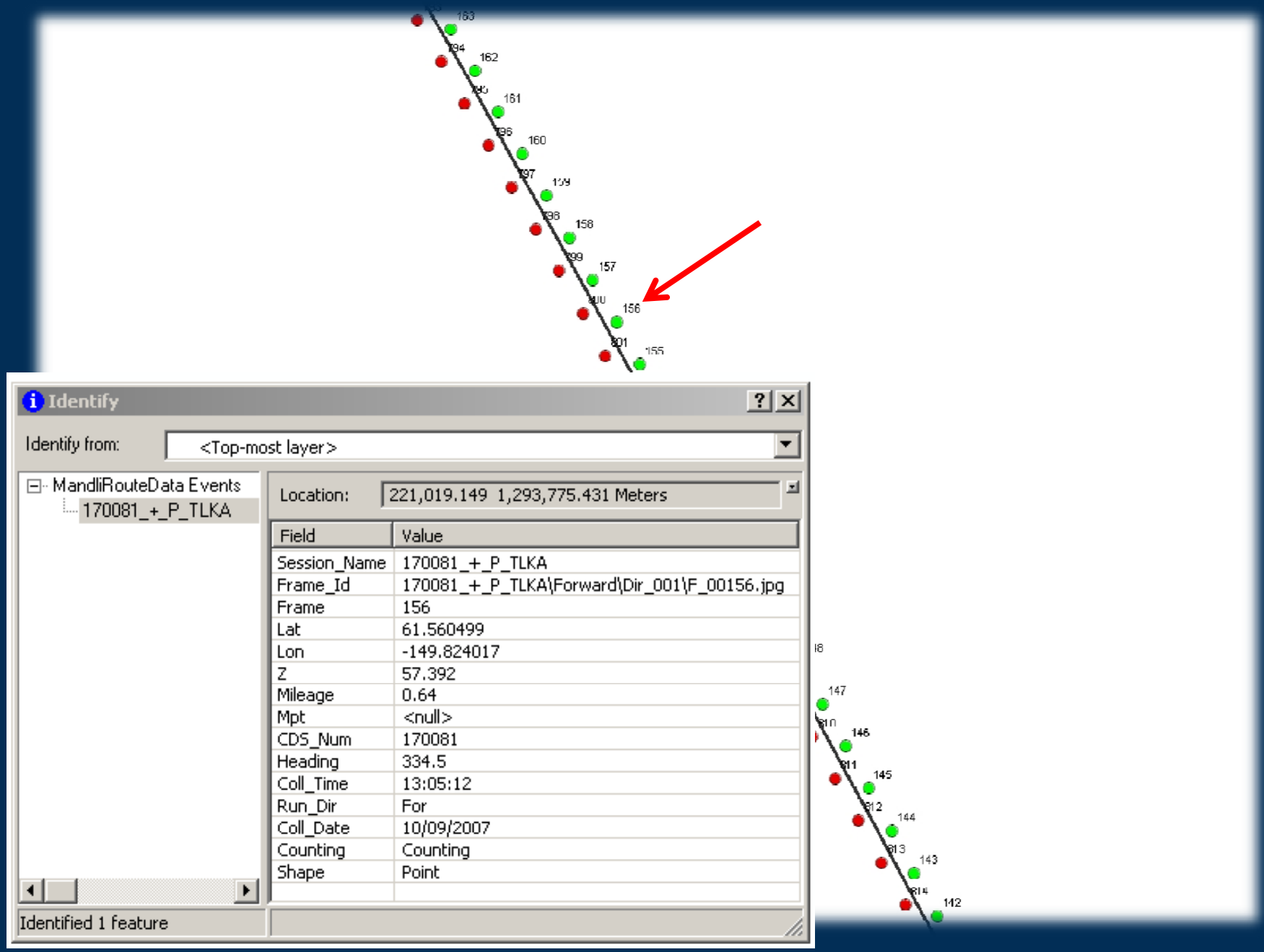


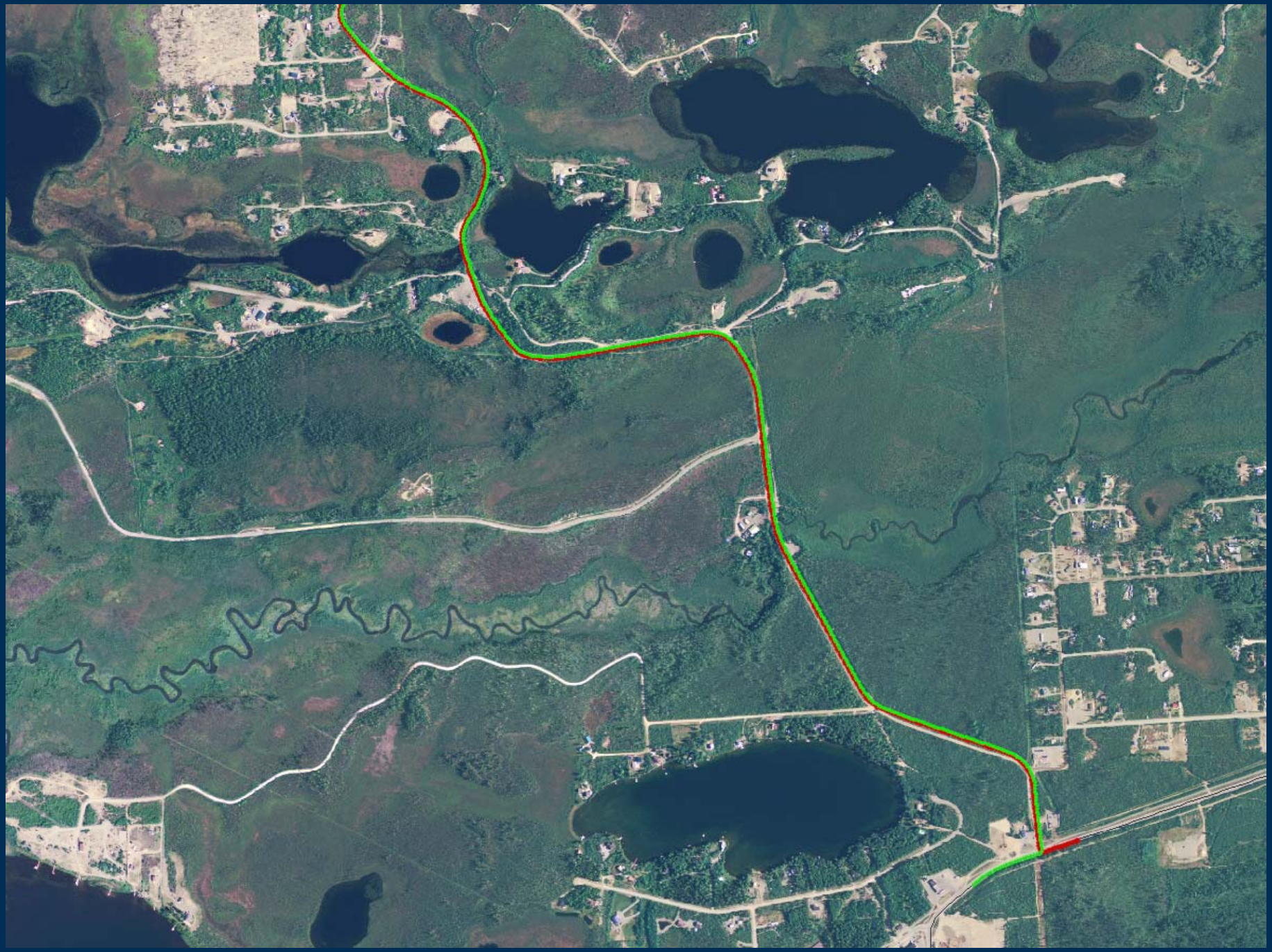
170081_-

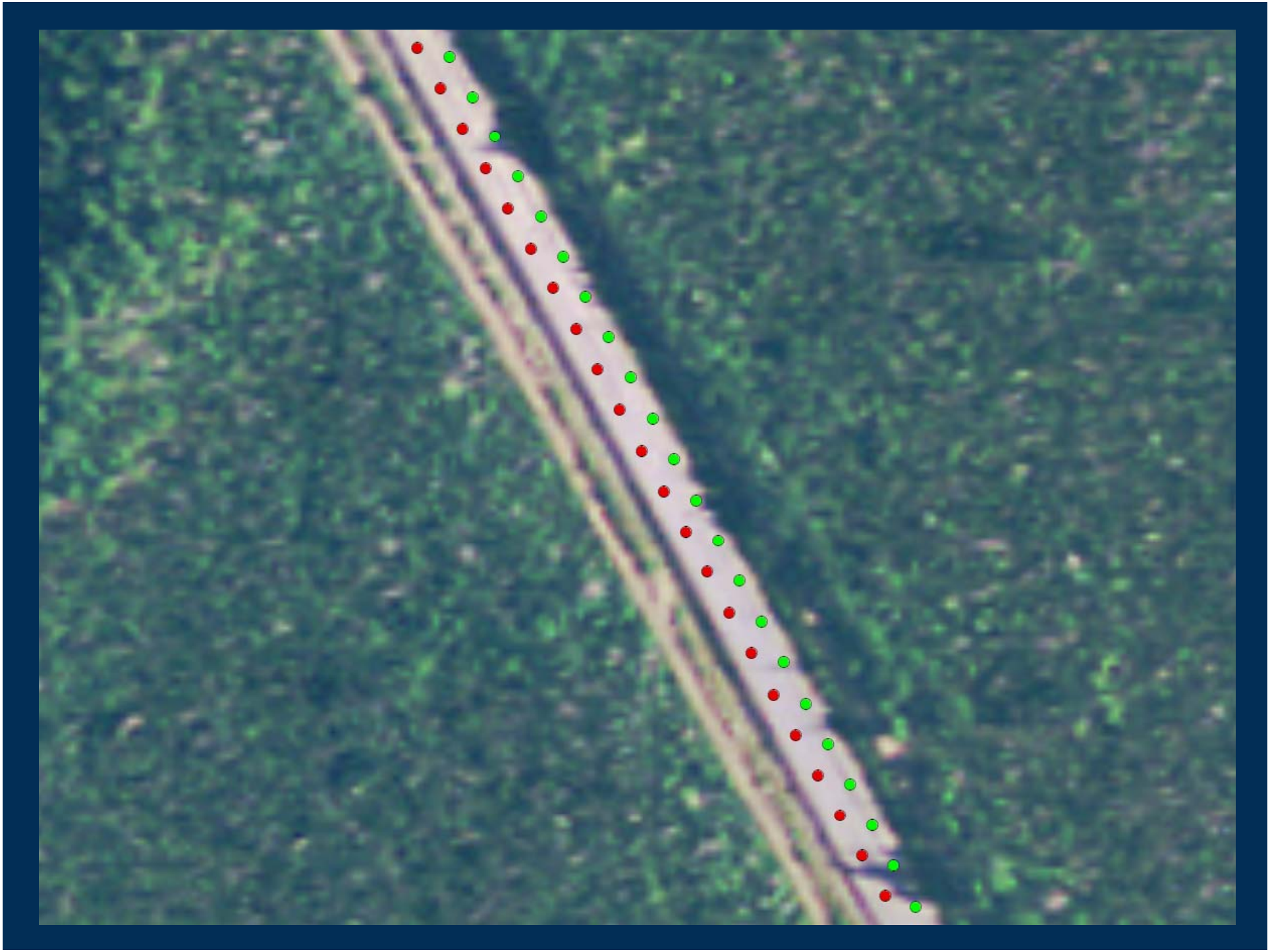
Session_Nar	Frame_Id	Frame	Lat	Lon	Z	Mileage	Mpt	CDS_Num	Heading	Coll_Time	Run_Dir	Coll_Date	Counting
170081_-_P_TL	170081_-_P_TL	1	61.59918209	-149.80447266	81.572	4.6348		170081	215	13:14:45	Rev	10/09/2007	Start
170081_-_P_TL	170081_-_P_TL	2	61.59912251	-149.80456041	81.308	4.6298		170081	215.1	13:14:47	Rev	10/09/2007	Counting
170081_-_P_TL	170081_-_P_TL	3	61.5990629	-149.80464854	81.321	4.6248		170081	214.9	13:14:49	Rev	10/09/2007	Counting
170081_-_P_TL	170081_-_P_TL	4	61.59900308	-149.80473577	81.172	4.6198		170081	214.6	13:14:51	Rev	10/09/2007	Counting
170081_-_P_TL	170081_-_P_TL	5	61.59894254	-149.80482305	80.831	4.6148		170081	210.9	13:14:52	Rev	10/09/2007	Counting
170081_-_P_TL	170081_-_P_TL	6	61.59887716	-149.80489447	80.331	4.6098		170081	202.6	13:14:53	Rev	10/09/2007	Counting
170081_-_P_TL	170081_-_P_TL	7	61.59880652	-149.80494205	79.839	4.6048		170081	195.7	13:14:55	Rev	10/09/2007	Counting
170081_-_P_TL	170081_-_P_TL	8	61.59873606	-149.80497771	79.233	4.5998		170081	193.2	13:14:56	Rev	10/09/2007	Counting
170081_-_P_TL	170081_-_P_TL	9	61.59866596	-149.80501125	78.642	4.5948		170081	194.8	13:14:57	Rev	10/09/2007	Counting
170081_-_P_TL	170081_-_P_TL	10	61.59859821	-149.80505437	78.319	4.5898		170081	198.5	13:14:58	Rev	10/09/2007	Counting
170081_-_P_TL	170081_-_P_TL	11	61.59853129	-149.80510611	77.987	4.5848		170081	201.5	13:14:59	Rev	10/09/2007	Counting
170081_-_P_TL	170081_-_P_TL	12	61.59846601	-149.80516366	77.918	4.5798							
170081_-_P_TL	170081_-_P_TL	13	61.59840221	-149.80522999	77.682	4.5748							
170081_-_P_TL	170081_-_P_TL	14	61.59834204	-149.80530765	77.541	4.5698							
170081_-_P_TL	170081_-_P_TL	15	61.59828379	-149.80539152	77.31	4.5648							

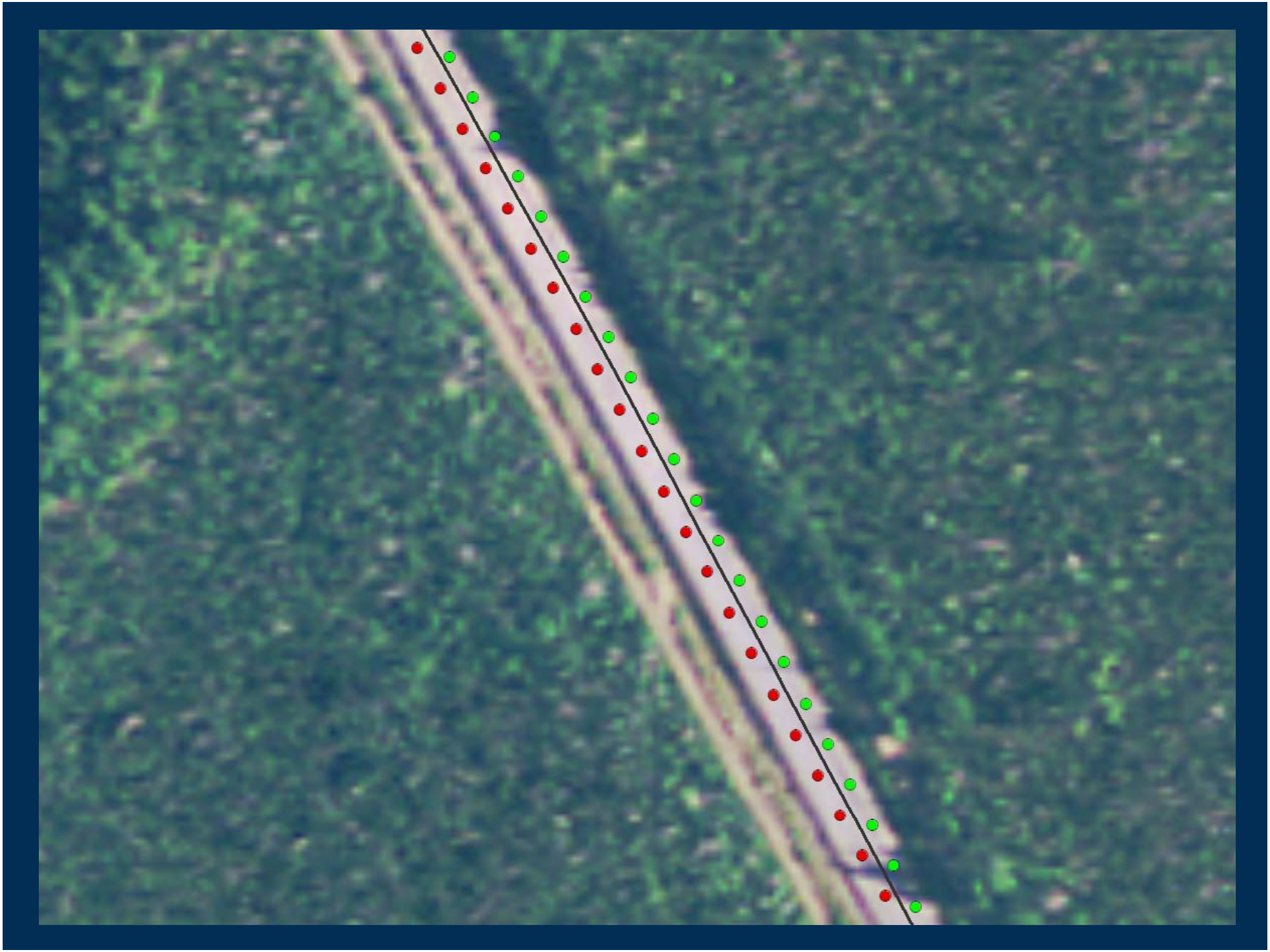


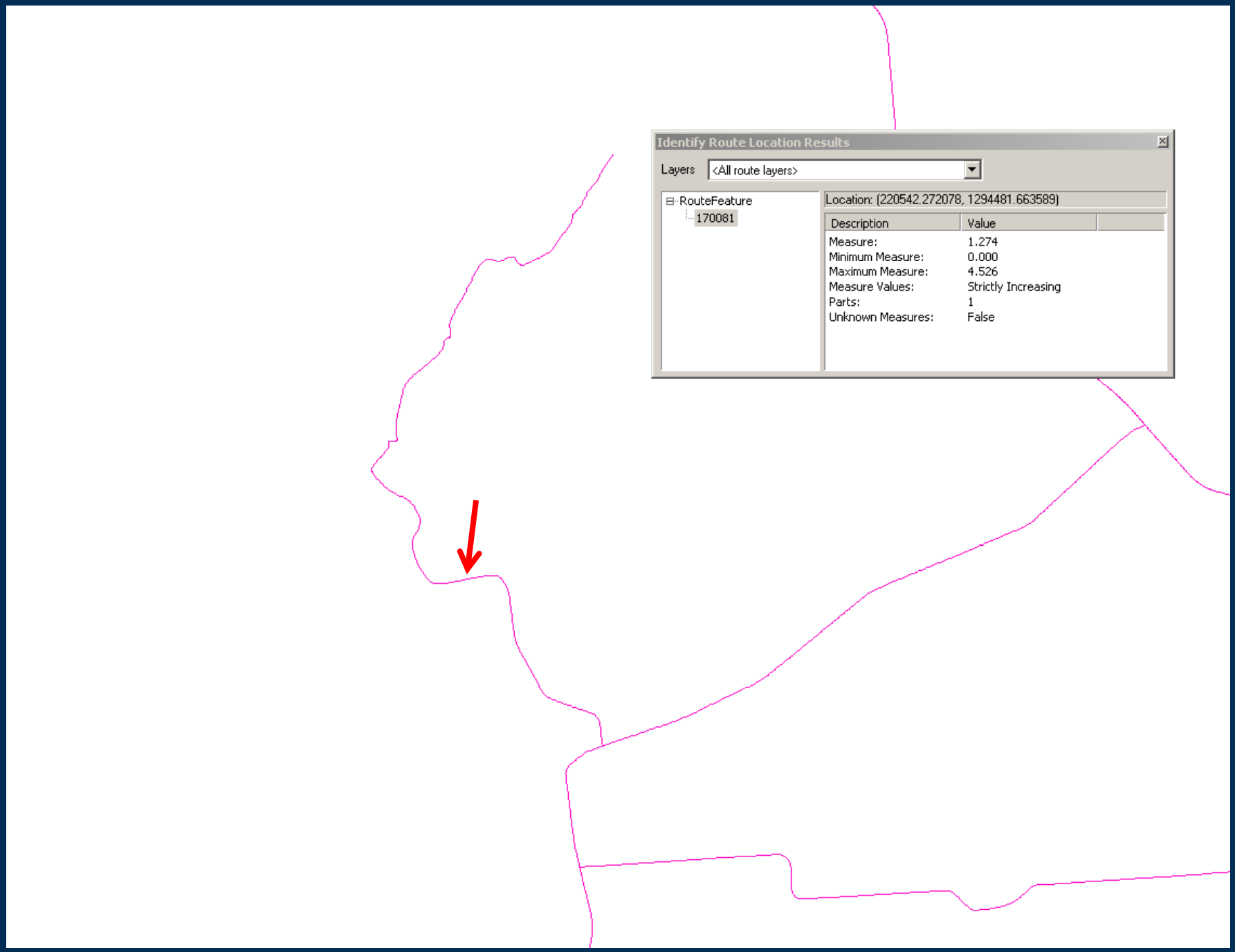



Identify
Identify from:
<Top-most layer>
MandliRouteData Events
170081_+_P_TLKA
Location:
221,019.149 1,293,775.431 Meters
Field
Value
Session_Name
170081_+_P_TLKA
Frame_Id
170081_+_P_TLKA\Forward\Dir_001\F_00156.jpg
Frame
156
Lat
61.560499
Lon
-149.824017
Z
57.392
Mileage
0.64
Mpt
<null>
CDS_Num
170081
Heading
334.5
Coll_Time
13:05:12
Run_Dir
For
Coll_Date
10/09/2007
Counting
Counting
Shape
Point
Identified 1 feature
163
162
161
160
158
157
156
155
147
146
145
144
143
142







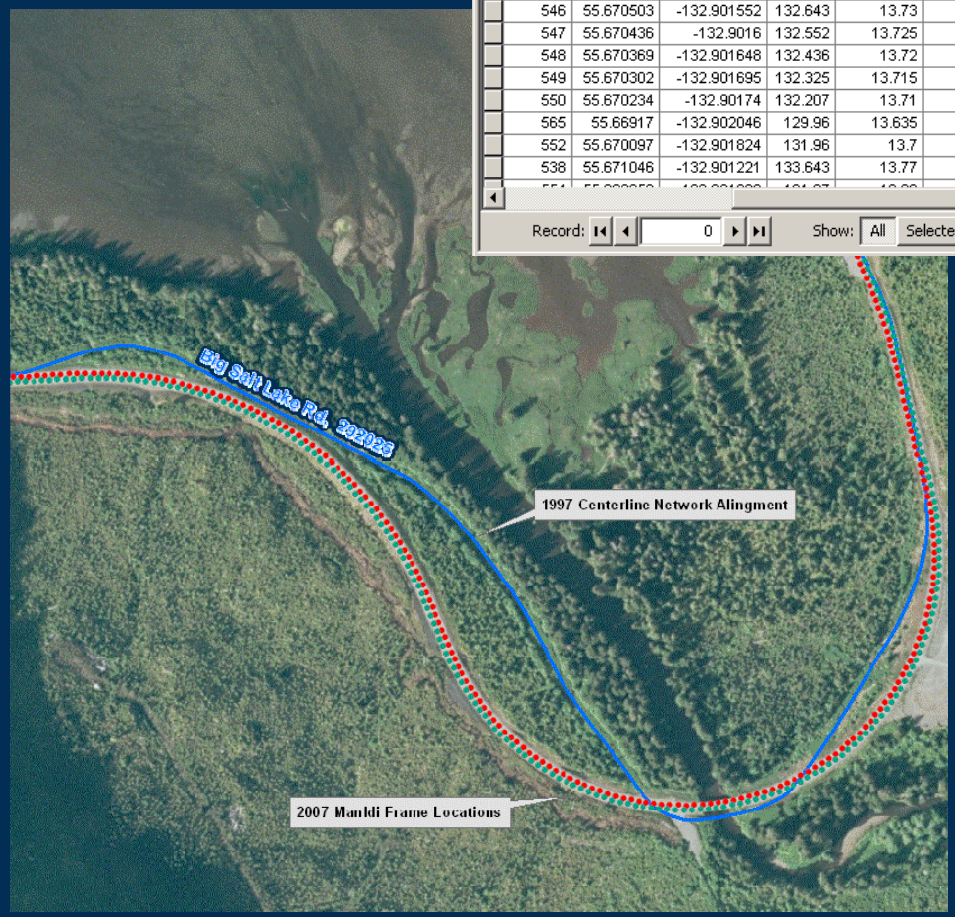

Identify Route Location Results
Layers
<All route layers>
RouteFeature
170081
Location: (220542.272078, 1294481.663589)
Description
Value
Measure:
1.274
Minimum Measure:
0.000
Maximum Measure:
4.526
Measure Values:
Strictly Increasing
Parts:
1
Unknown Measures:
False

Update Network

Attributes of MandliRouteData Events

Frame	Lat	Lon	Z	Mpt	CDS_Num	Heading	Coll_Time	Run_Dir	Coll_Date	Counting	Shape *
553	55.670029	-132.901862	131.82	13.695	292025	197	12:43:41	Rev	05/31/2007	Counting	Point
541	55.670839	-132.90133	133.275	13.755	292025	198.1	12:43:37	Rev	05/31/2007	Counting	Point
542	55.670772	-132.90137	133.165	13.75	292025	199.2	12:43:37	Rev	05/31/2007	Counting	Point
543	55.670704	-132.901413	133.018	13.745	292025	200.2	12:43:37	Rev	05/31/2007	Counting	Point
544	55.670637	-132.901458	132.884	13.74	292025	201.1	12:43:38	Rev	05/31/2007	Counting	Point
545	55.670569	-132.901505	132.759	13.735	292025	201.6	12:43:38	Rev	05/31/2007	Counting	Point
546	55.670503	-132.901552	132.643	13.73	292025	201.9	12:43:38	Rev	05/31/2007	Counting	Point
547	55.670436	-132.9016	132.552	13.725	292025	201.9	12:43:39	Rev	05/31/2007	Counting	Point
548	55.670369	-132.901648	132.436	13.72	292025	201.6	12:43:39	Rev	05/31/2007	Counting	Point
549	55.670302	-132.901695	132.325	13.715	292025	201	12:43:39	Rev	05/31/2007	Counting	Point
550	55.670234	-132.90174	132.207	13.71	292025	200.1	12:43:40	Rev	05/31/2007	Counting	Point
565	55.66917	-132.902046	129.96	13.635	292025	176.9	12:43:45	Rev	05/31/2007	Counting	Point
552	55.670097	-132.901824	131.96	13.7	292025	198.1	12:43:40	Rev	05/31/2007	Counting	Point
538	55.671046	-132.901221	133.643	13.77	292025	194.8	12:43:36	Rev	05/31/2007	Counting	Point

Record: 0 Show: All Selected Records (0 out of 2048 Selected) Options



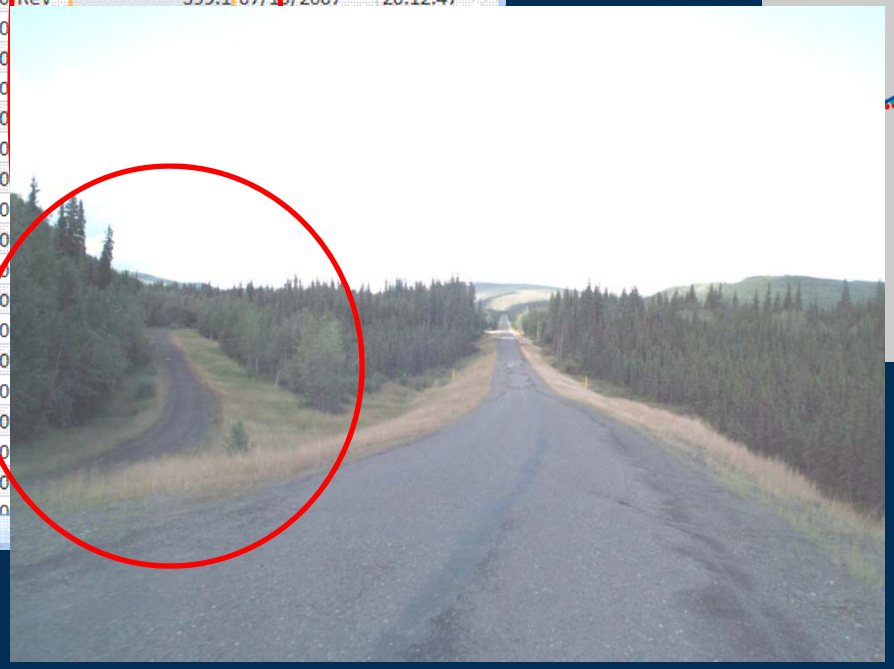
Frame Locations

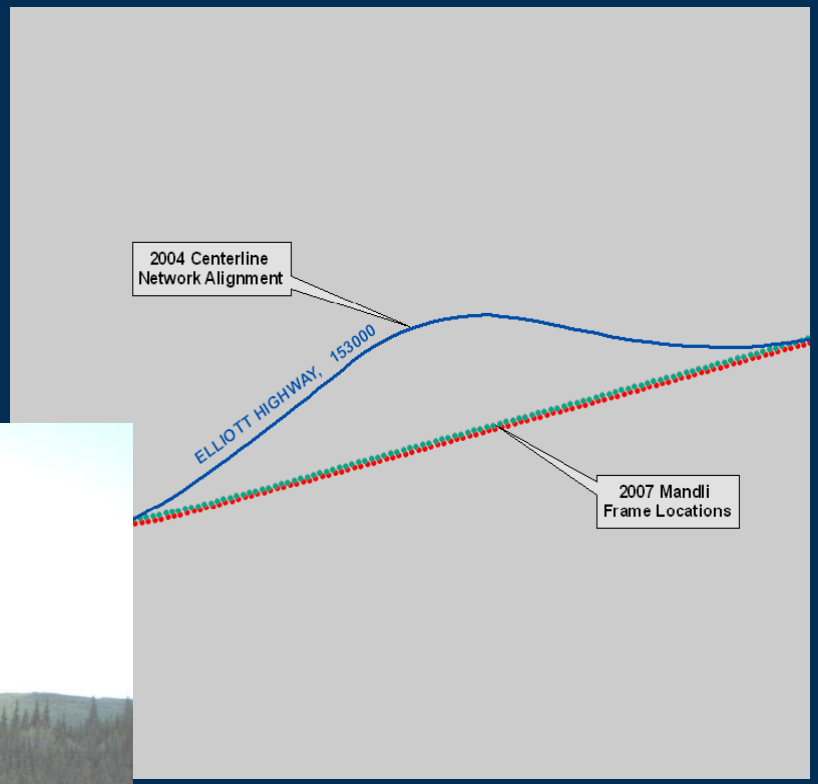
- frame locations contain all of the necessary data items to create route centerlines (X, Y, Z, Mpt, and CDS route number)
- could be used to update a realigned section of the centerline network
- could be used to create a new route to be added to the centerline network

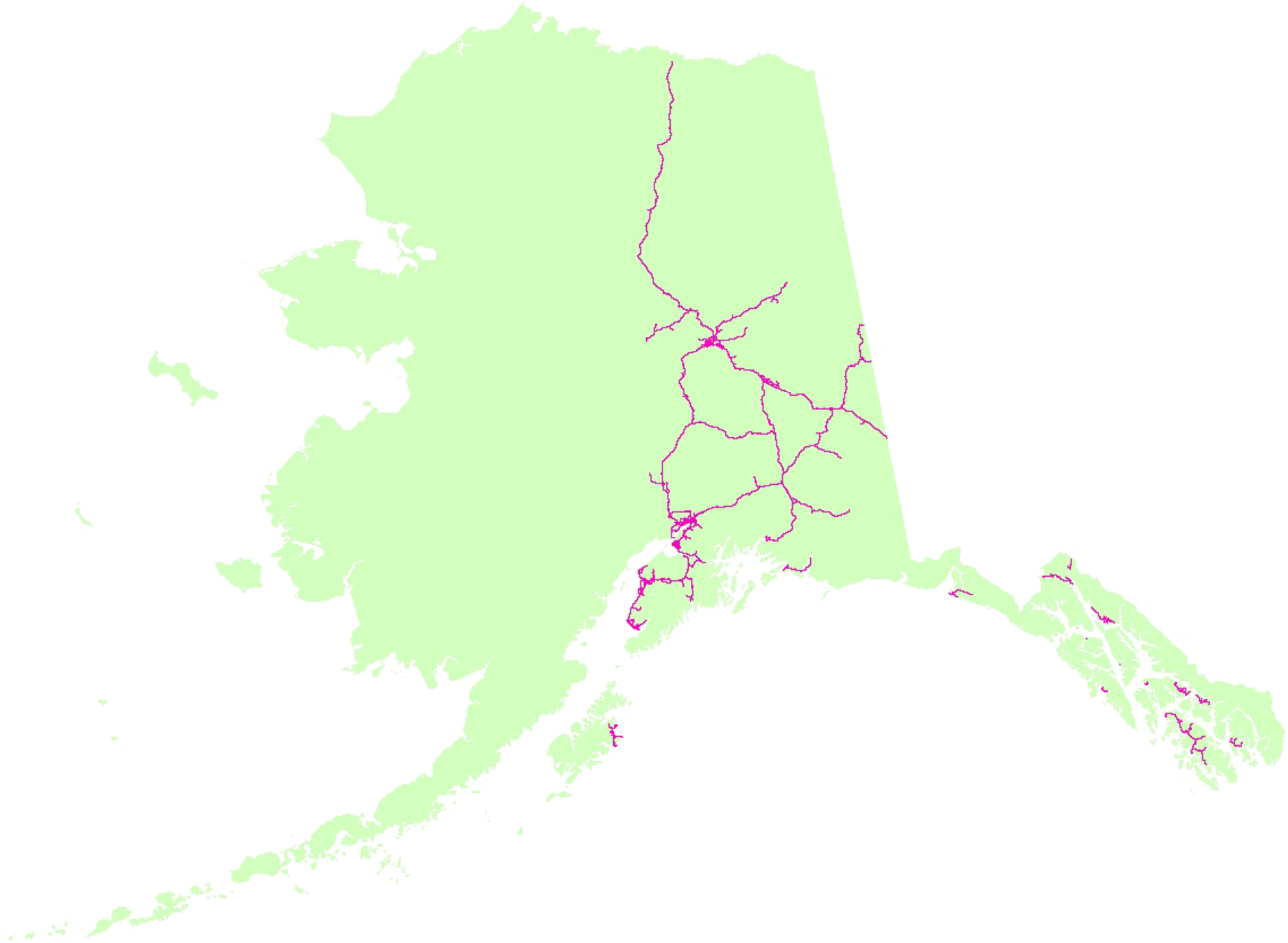
Updating Existing Base Maps

Mileage	CDS_Nun	Rui	Snap_Dist_Ft	Coll_Date	Coll_Tim
124.2595	153000	Rev	290.2	07/15/2007	20:12:43
124.2545	153000	Rev	300	07/15/2007	20:12:44
124.2495	153000	Rev	309.6	07/15/2007	20:12:44
124.2445	153000	Rev	319.5	07/15/2007	20:12:44
124.2395	153000	Rev	329.3	07/15/2007	20:12:45
124.2345	153000	Rev	339.3	07/15/2007	20:12:45
124.2295	153000	Rev	348.9	07/15/2007	20:12:46
124.2245	153000	Rev	359	07/15/2007	20:12:46
124.2195	153000	Rev	369.2	07/15/2007	20:12:46
124.2145	153000	Rev	379.2	07/15/2007	20:12:47
124.2095	153000	Rev	389.2	07/15/2007	20:12:47
124.2045	153000	Rev	399.1	07/15/2007	20:12:47
124.1995	153000				
124.1945	153000				
124.1895	153000				
124.1845	153000				
124.1795	153000				
124.1745	153000				
124.1695	153000				
124.1645	153000				
124.1595	153000				
124.1545	153000				
124.1495	153000				
124.1445	153000				
124.1395	153000				
124.1345	153000				
124.1295	153000				
124.1245	153000				
124.1195	153000				

No Filter | Search





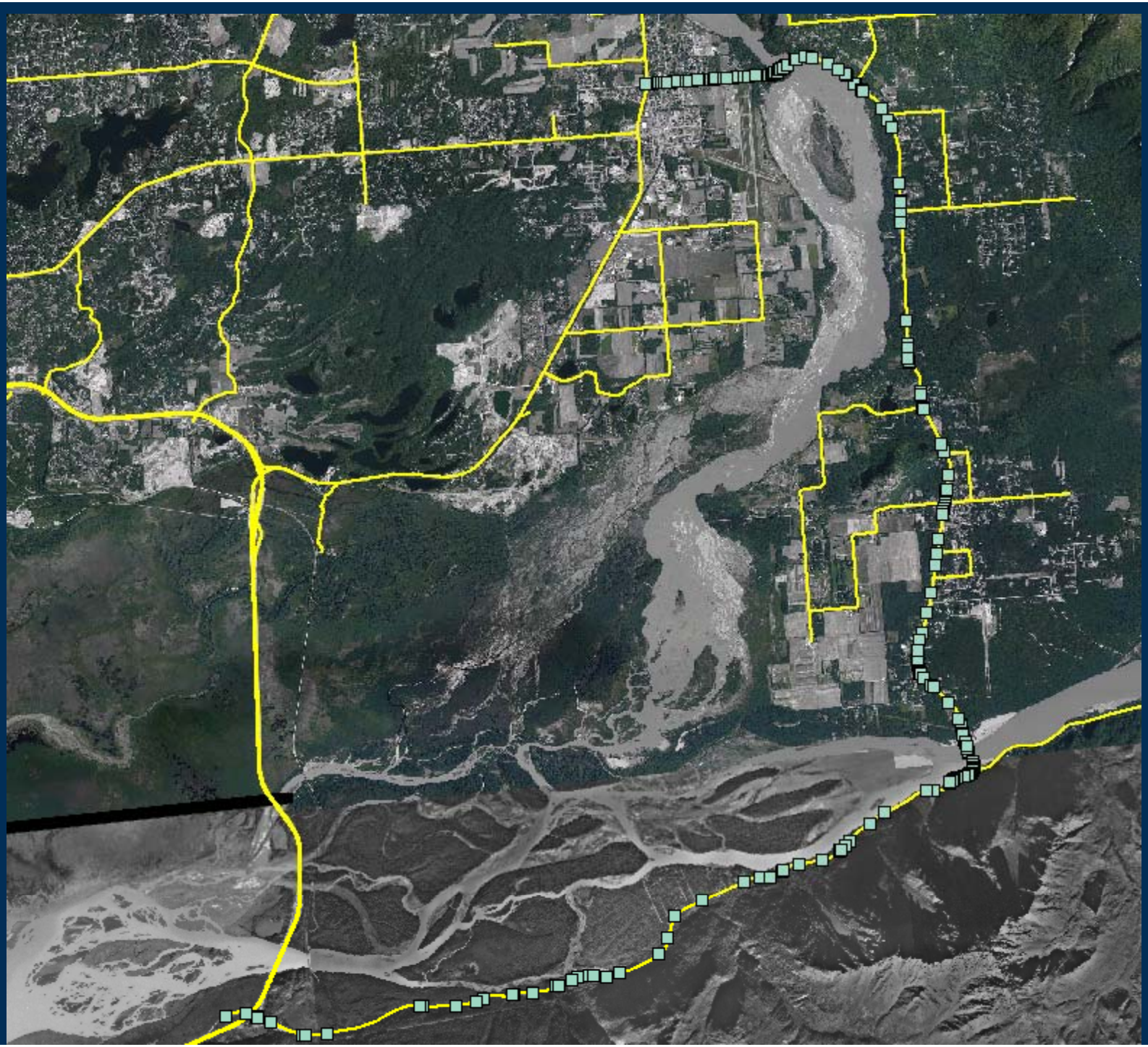


Feature Extraction

Asset Inventory

- Signs
- Bridges
- Culverts
- Luminaires
- Guardrails
- Rest Areas
- Turn Outs
- Rumble Strips
- Shoulders

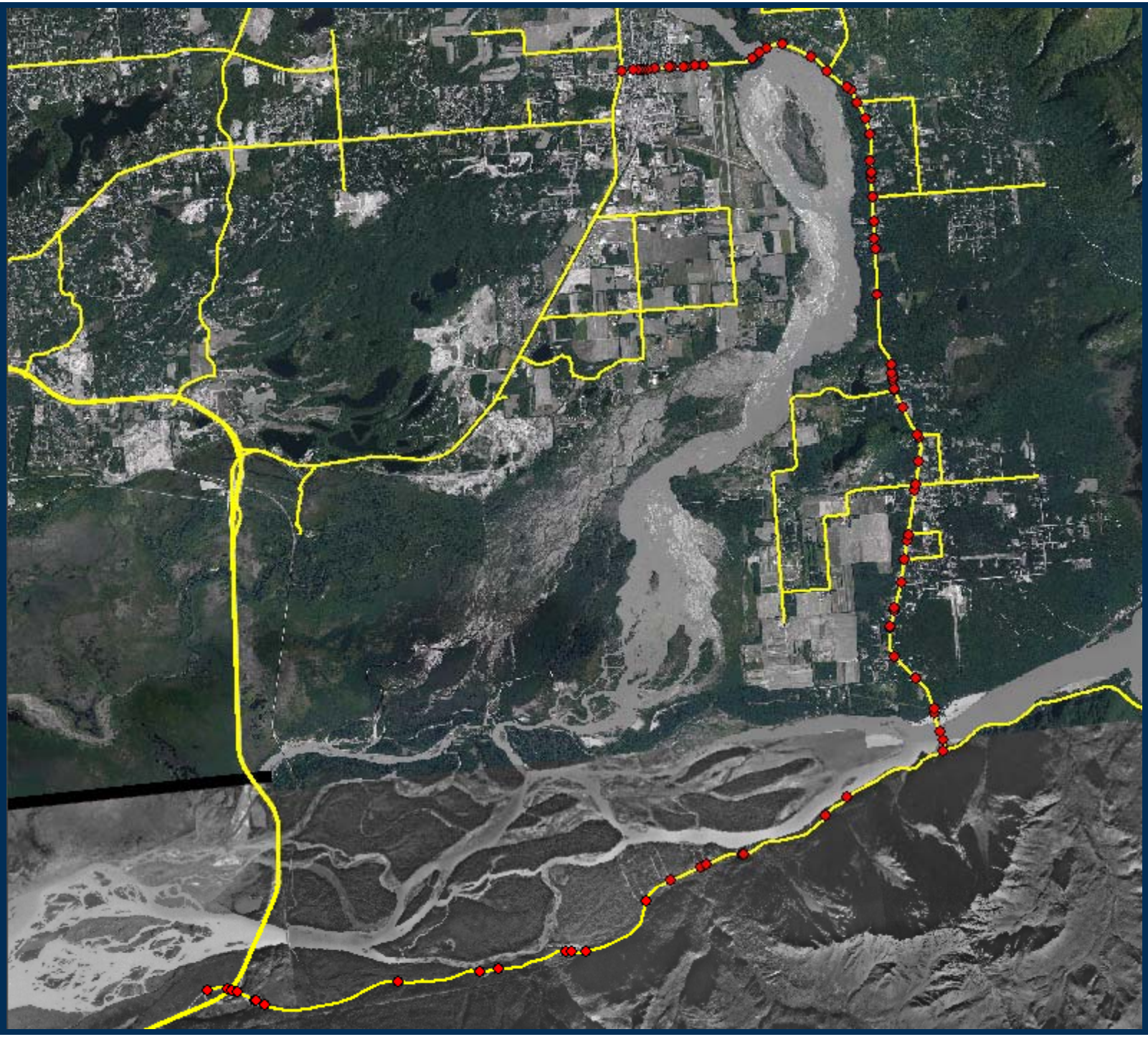
Culverts



Feature Extraction

RoadLog Inventory

- Cultural features
- Intersections
- Medians
- Number of Lanes
- etc

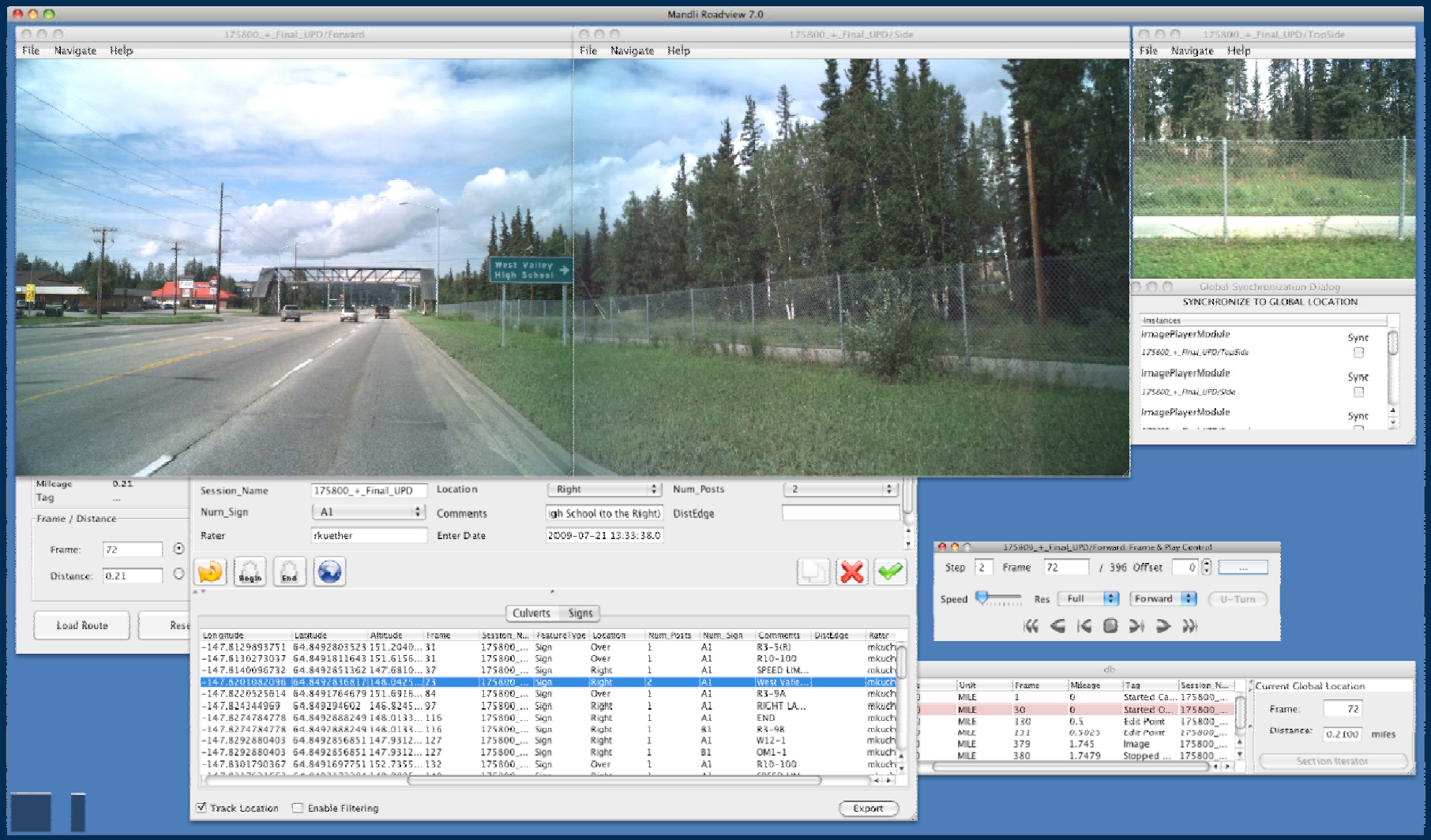


Two Extraction Methods

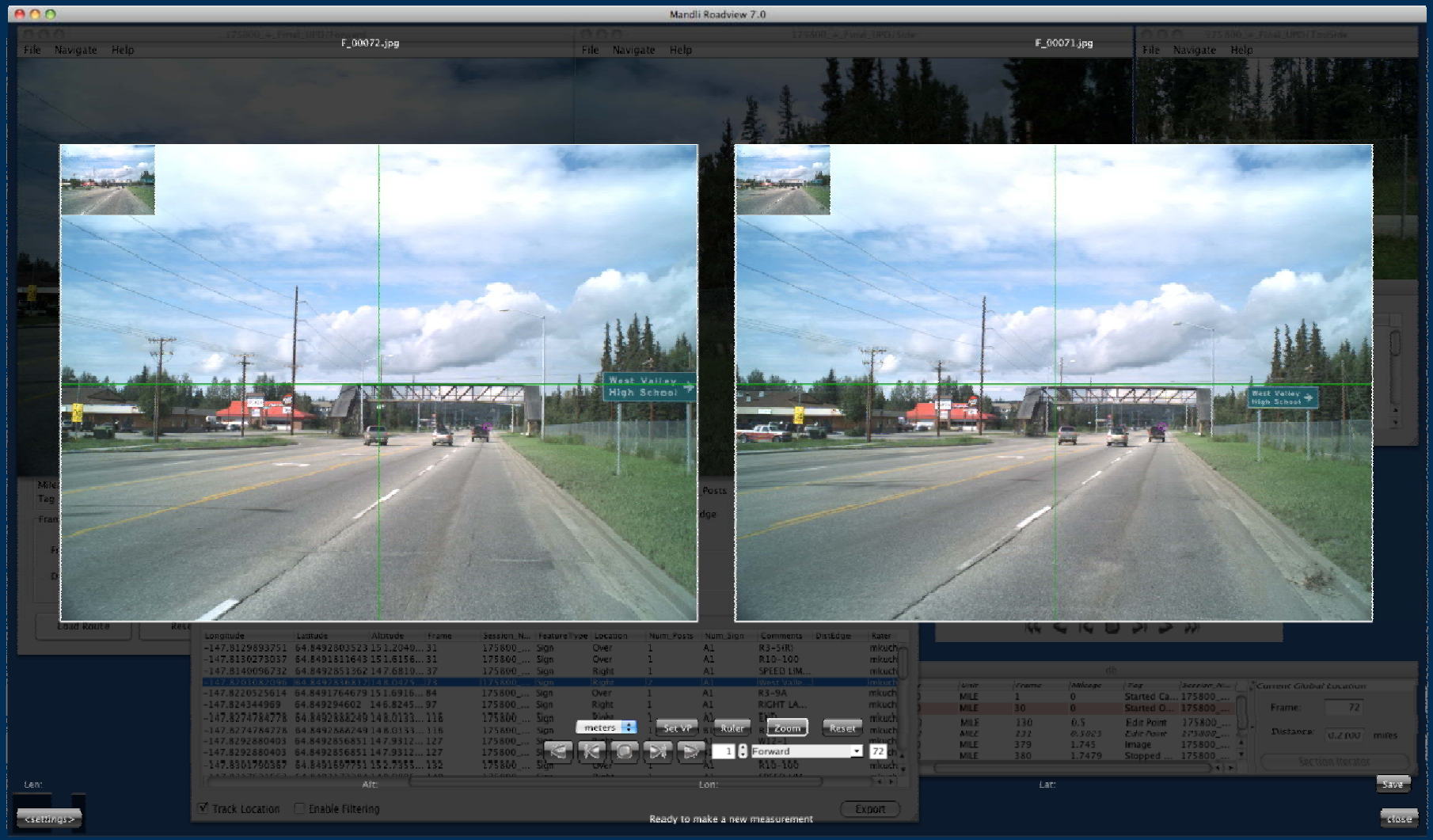
Vendor software

Frame Reference

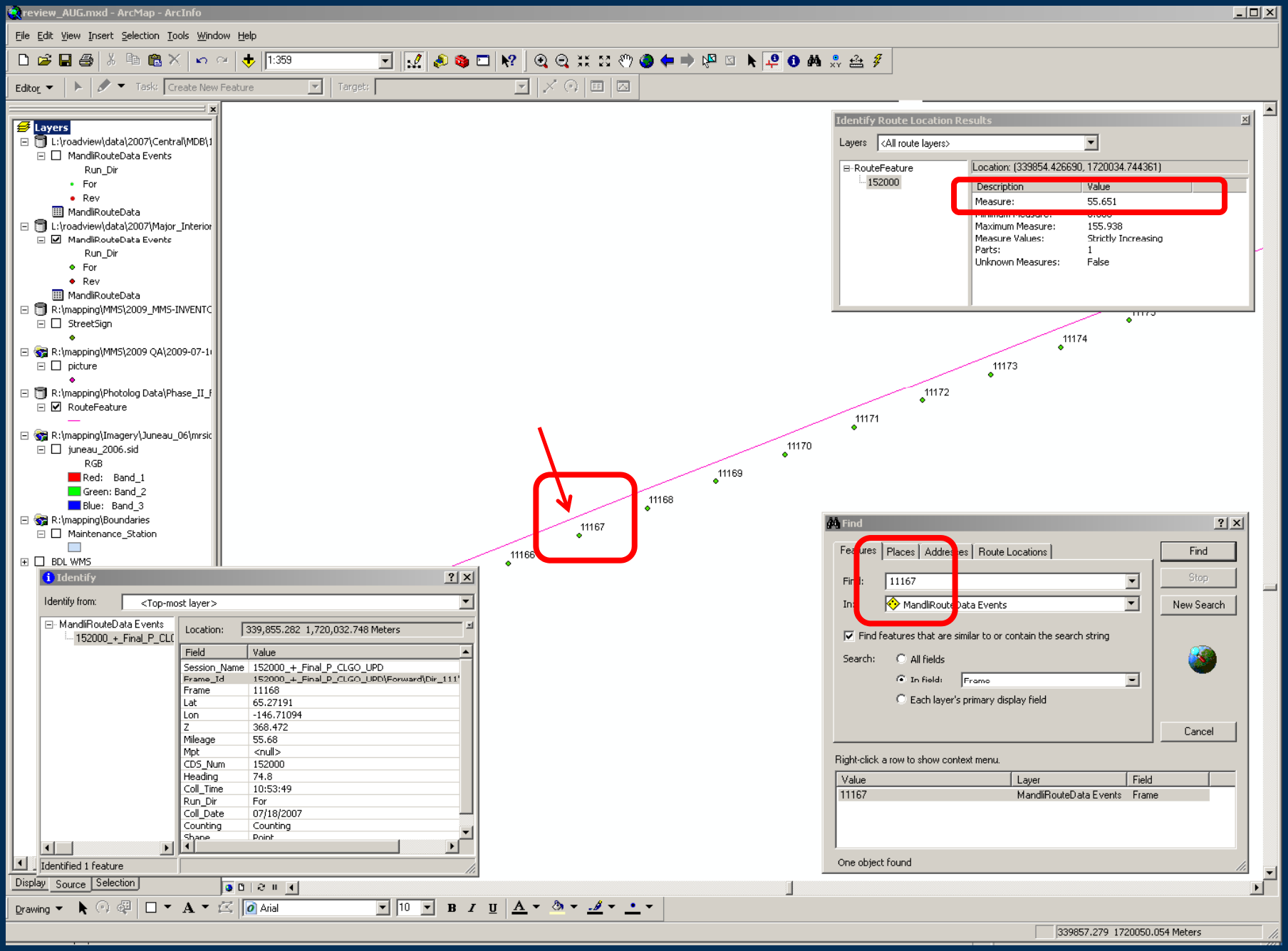
RoadView


Mandli Roadview 7.0
File Navigate Help
West Valley High School
Global Synchronization Dialog
SYNCHRONIZE TO GLOBAL LOCATION
ImagePlayerModule
Sync
Session_Name
175800_+_Final_UPD
Location
Right
Num_Posts
Num_Sign
A1
Comments
DistEdge
Rater
rkuether
Enter Date
2009-07-21 13:33:38.0
Frame / Distance
Frame:
Distance:
Load Route
Culverts
Signs
Track Location
Enable Filtering
Export
Step
Frame
Offset
Speed
Res
Full
Forward
U-Turn
Current Global Location
Section Iterator

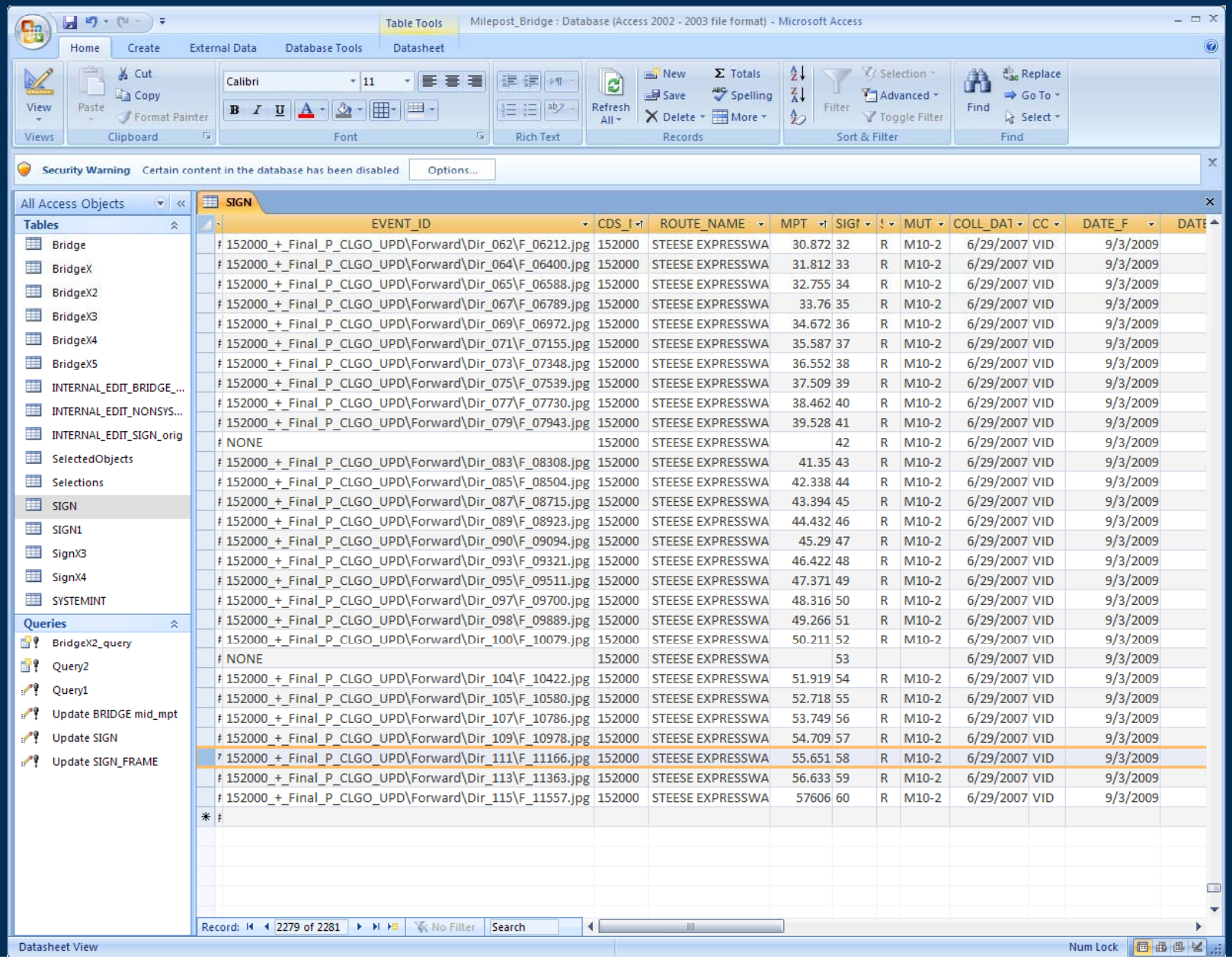
RoadView


Mandli Roadview 7.0
File Navigate Help
F_00072.jpg
F_00071.jpg
West Valley High School
Track Location
Enable Filtering
Export
Ready to make a new measurement
Save
Close

Frame Reference

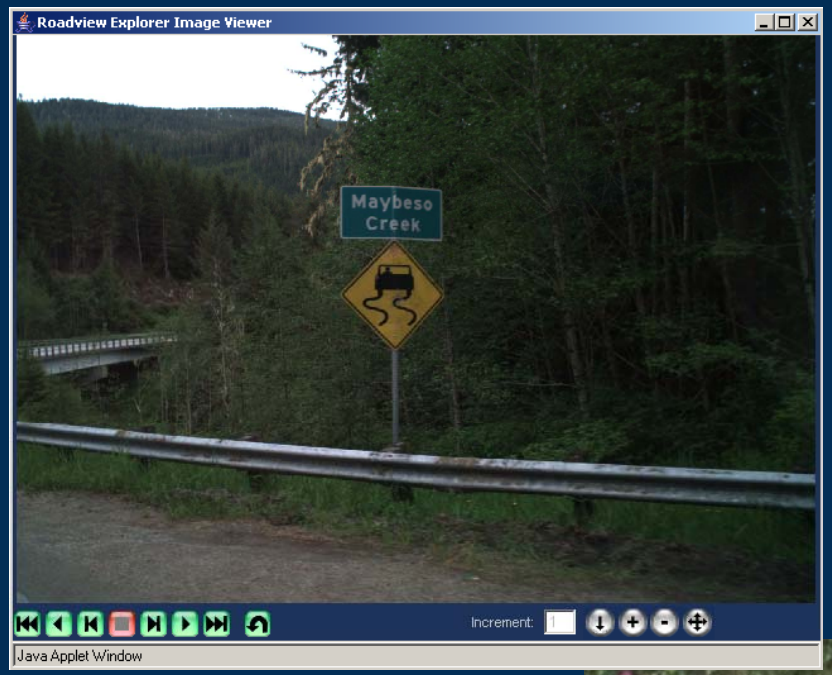

review_AUG.mxd - ArcMap - ArcInfo
File Edit View Insert Selection Tools Window Help
1:359
Editor
Task: Create New Feature
Target:
Layers
L:\roadview\data\2007\Central\MDB\1
MandliRouteData Events
Run_Dir
For
Rev
MandliRouteData
L:\roadview\data\2007\Major_Interior
MandliRouteData Events
Run_Dir
For
Rev
MandliRouteData
R:\mapping\MMS\2009_MMS-INVENTC
StreetSign
R:\mapping\MMS\2009 QA\2009-07-1
picture
R:\mapping\Photolog Data\Phase_II_f
RouteFeature
R:\mapping\Imagery\Juneau_06\mrsic
juneau_2006.sid
RGB
Red: Band_1
Green: Band_2
Blue: Band_3
R:\mapping\Boundaries
Maintenance_Station
BDL WMS
Identify Route Location Results
Layers <All route layers>
RouteFeature
152000
Location: (339854.426690, 1720034.744361)
Description Value
Measure: 55.651
Maximum Measure: 155.938
Measure Values: Strictly Increasing
Parts: 1
Unknown Measures: False
11174
11173
11172
11171
11170
11169
11168
11167
11166
Identify
Identify from: <Top-most layer>
MandliRouteData Events
152000_+_Final_P_CLC
Location: 339,855.282 1,720,032.748 Meters
Field Value
Session_Name 152000_+_Final_P_CLGO_UPD
Frame_Id 152000_+_Final_P_CLGO_UPD\Forward\Dir_111
Frame 11168
Lat 65.27191
Lon -146.71094
Z 368.472
Mileage 55.68
Mpt <null>
CDS_Num 152000
Heading 74.8
Coll_Time 10:53:49
Run_Dir For
Coll_Date 07/18/2007
Counting Counting
Shape Point
Identified 1 feature
Find
Features Places Addresses Route Locations
Find: 11167
In: MandliRouteData Events
Find features that are similar to or contain the search string
Search: All fields
In field: Frame
Each layer's primary display field
Find
Stop
New Search
Cancel
Right-click a row to show context menu.
Value Layer Field
11167 MandliRouteData Events Frame
One object found
Display Source Selection
Drawing
Arial
10
339857.279 1720050.054 Meters

Feature Database



EVENT_ID	CDS_I	ROUTE_NAME	MPT	SIGI	S	MUT	COLL_DAT	CC	DATE_F	DATE
152000_+_Final_P_CLGO_UPD\Forward\Dir_062\F_06212.jpg	152000	STEESE EXPRESSWA	30.872	32	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_064\F_06400.jpg	152000	STEESE EXPRESSWA	31.812	33	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_065\F_06588.jpg	152000	STEESE EXPRESSWA	32.755	34	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_067\F_06789.jpg	152000	STEESE EXPRESSWA	33.76	35	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_069\F_06972.jpg	152000	STEESE EXPRESSWA	34.672	36	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_071\F_07155.jpg	152000	STEESE EXPRESSWA	35.587	37	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_073\F_07348.jpg	152000	STEESE EXPRESSWA	36.552	38	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_075\F_07539.jpg	152000	STEESE EXPRESSWA	37.509	39	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_077\F_07730.jpg	152000	STEESE EXPRESSWA	38.462	40	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_079\F_07943.jpg	152000	STEESE EXPRESSWA	39.528	41	R	M10-2	6/29/2007	VID	9/3/2009	
NONE	152000	STEESE EXPRESSWA		42	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_083\F_08308.jpg	152000	STEESE EXPRESSWA	41.35	43	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_085\F_08504.jpg	152000	STEESE EXPRESSWA	42.338	44	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_087\F_08715.jpg	152000	STEESE EXPRESSWA	43.394	45	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_089\F_08923.jpg	152000	STEESE EXPRESSWA	44.432	46	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_090\F_09094.jpg	152000	STEESE EXPRESSWA	45.29	47	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_093\F_09321.jpg	152000	STEESE EXPRESSWA	46.422	48	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_095\F_09511.jpg	152000	STEESE EXPRESSWA	47.371	49	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_097\F_09700.jpg	152000	STEESE EXPRESSWA	48.316	50	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_098\F_09889.jpg	152000	STEESE EXPRESSWA	49.266	51	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_100\F_10079.jpg	152000	STEESE EXPRESSWA	50.211	52	R	M10-2	6/29/2007	VID	9/3/2009	
NONE	152000	STEESE EXPRESSWA		53			6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_104\F_10422.jpg	152000	STEESE EXPRESSWA	51.919	54	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_105\F_10580.jpg	152000	STEESE EXPRESSWA	52.718	55	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_107\F_10786.jpg	152000	STEESE EXPRESSWA	53.749	56	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_109\F_10978.jpg	152000	STEESE EXPRESSWA	54.709	57	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_111\F_11166.jpg	152000	STEESE EXPRESSWA	55.651	58	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_113\F_11363.jpg	152000	STEESE EXPRESSWA	56.633	59	R	M10-2	6/29/2007	VID	9/3/2009	
152000_+_Final_P_CLGO_UPD\Forward\Dir_115\F_11557.jpg	152000	STEESE EXPRESSWA	57606	60	R	M10-2	6/29/2007	VID	9/3/2009	

Contracted Feature Extraction



SIGNS

CULVERTS

Delivered Features

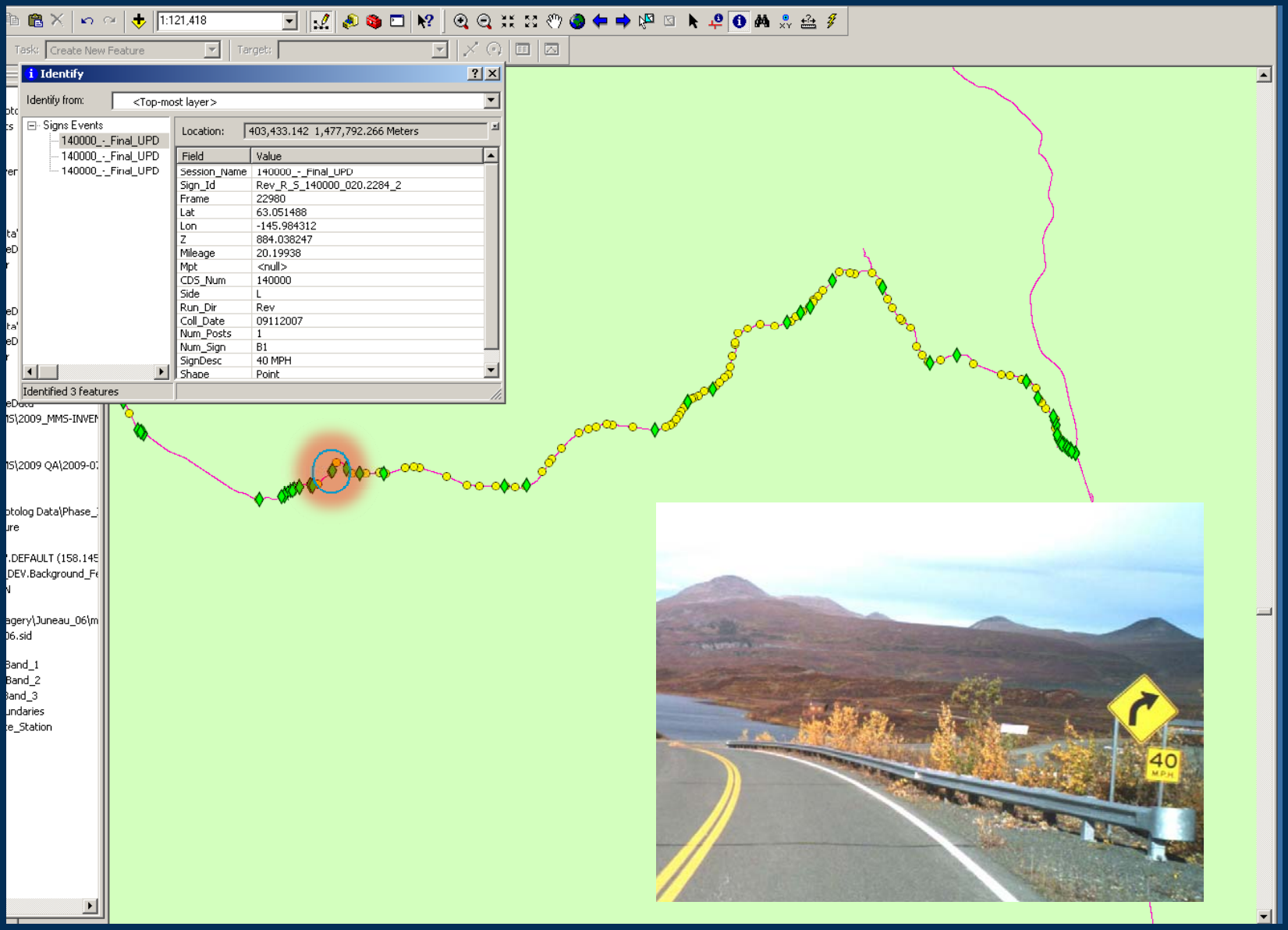
Culverts

Session_Nar	Culv_Id	Frame	Lat	Lon	Z	Mileage	Mpt	CDS_Num	Side	Run_Dir	Coll_Date
295500_+	For_U_C_2955C	312	57.047124	-135.304982	8.5439996719	1.31		295500	U	For	06132007
295500_+	For_U_C_2955C	316	57.047026	-135.304486	8.6339998245	1.33		295500	U	For	06132007
295500_+	For_U_C_2955C	357	57.047233	-135.299471	7.9109997749	1.535		295500	U	For	06132007
295500_+	For_U_C_2955C	364	57.047401	-135.298606	8.0659999847	1.57		295500	U	For	06132007
295500_+	For_U_C_2955C	372	57.047465	-135.297563	8.2969999313	1.61		295500	U	For	06132007
295500_+	For_U_C_2955C	376	57.047474	-135.297038	8.5380001068	1.63		295500	U	For	06132007
295500_+	For_U_C_2955C	399	57.0472	-135.294108	9.0340003967	1.745		295500	U	For	06132007
295500_+	For_U_C_2955C	403	57.04708	-135.293628	8.8819999695	1.765		295500	U	For	06132007
295500_+	For_U_C_2955C	417	57.046875	-135.291829	8.045999527	1.835		295500	U	For	06132007
295500_+	For_U_C_2955C	419	57.046864	-135.291567	8.0539999008	1.845		295500	U	For	06132007
295500_+	For_U_C_2955C	441	57.046655	-135.288702	9.8649997711	1.955		295500	U	For	06132007
295500_+	For_U_C_2955C	457	57.046268	-135.286721	9.6730003357	2.035		295500	U	For	06132007
295500_+	For_U_C_2955C	467	57.045901	-135.285608	8.7370004654	2.085		295500	U	For	06132007
295500_+	For_U_C_2955C	467	57.045901	-135.285608	8.7370004654	2.0852		295500	U	For	06132007
295500_+	For_U_C_2955C	483	57.045027	-135.284247	9.8009996414	2.165		295500	U	For	06132007
295500_+	For_U_C_2955C	496	57.044299	-135.283191	14.4879999161	2.23		295500	U	For	06132007

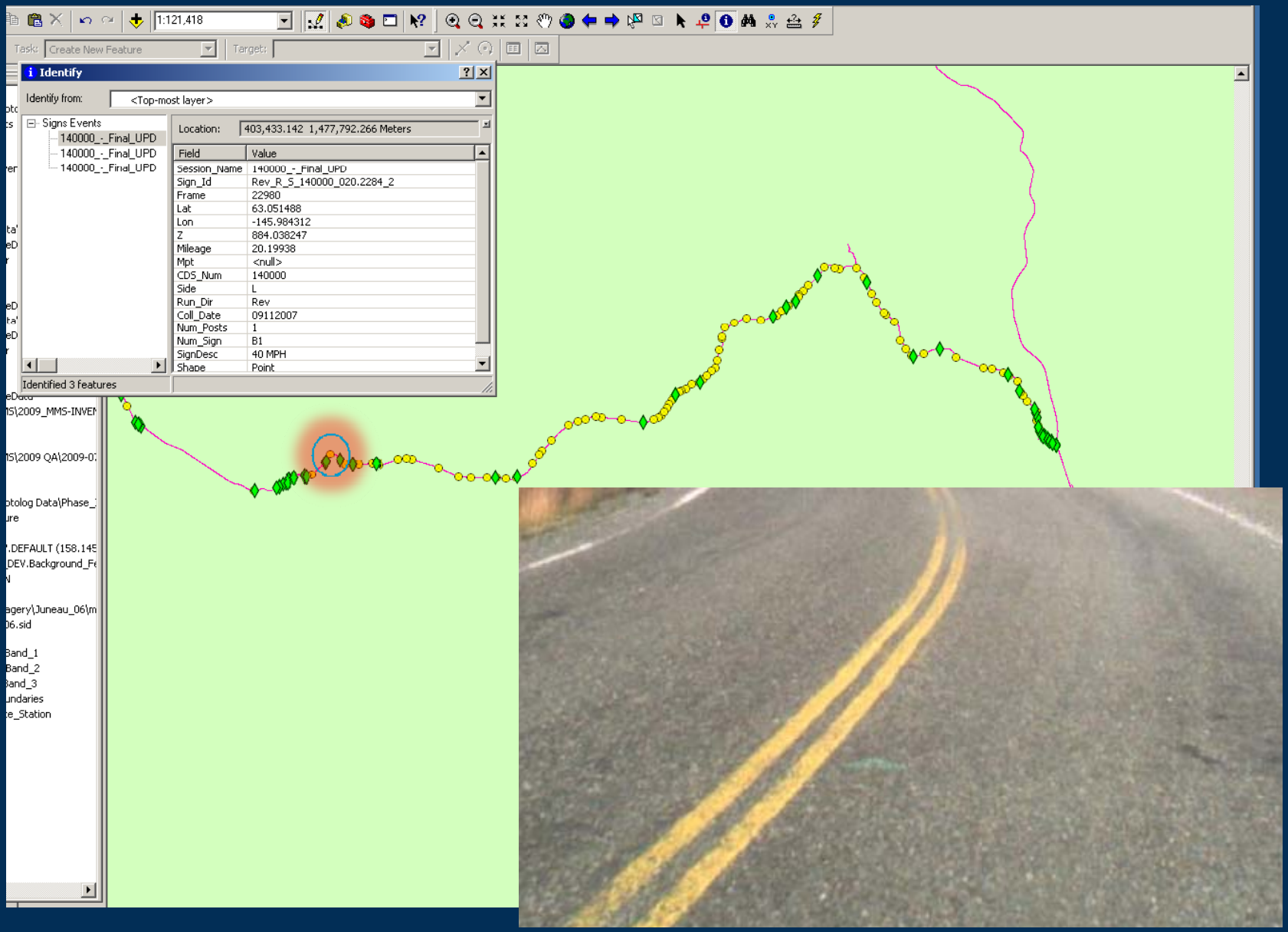
Signs

Session_Nar	Sign_Id	Frame	Lat	Lon	Z	Mileage	Mpt	CDS_Nun	Side	Run_Dir	Coll_Date	Num_Post:	Num_S	SignDesc
295500_+	For_A_S_29550	1478	57.0454864415	-135.20256058	10.8309280261	7.1406175695		295500	A	For	06132007	1	A1	END
295500_+	For_A_S_29550	1478	57.0454864415	-135.20256058	10.8309280261	7.1406175695		295500	A	For	06132007	1	B1	OM4-1
295500_+	For_L_S_29550	137	57.0540848464	-135.32330425	23.8881152813	0.4863223733		295500	L	For	06132007	2	A1	NATIONAL CEMETERY
295500_+	For_L_S_29550	1170	57.0504783826	-135.22950071	13.0978661212	5.6093478296		295500	L	For	06132007	1	A1	OM-3L
295500_+	For_L_S_29550	1171	57.050594	-135.229859	11.720000267	5.6101		295500	L	For	06132007	1	A1	OM-3L
295500_+	For_R_S_29550	52	57.0532437562	-135.33441780	13.5288091346	0.0119190914		295500	R	For	06132007	1	A1	ADOPT A HIGHWAY LITTER CONTROL NEXT M
295500_+	For_R_S_29550	52	57.0532437562	-135.33441780	13.5288091346	0.0119190914		295500	R	For	06132007	1	B1	SITKA ROTARY CLUB
295500_+	For_R_S_29550	53	57.0532621124	-135.33417949	13.838527603	0.0207597801		295500	R	For	06132007	1	A1	SPEED LIMIT 25
295500_+	For_R_S_29550	55	57.053308166	-135.33381771	13.7547086092	0.0346649708		295500	R	For	06132007	1	A1	S1-1
295500_+	For_R_S_29550	58	57.0533548774	-135.33343948	14.3618314085	0.0492973651		295500	R	For	06132007	1	A1	SCHOOL SPEED LIMIT 20 WHEN FLASHING
295500_+	For_R_S_29550	64	57.0534585943	-135.33269619	14.6533822658	0.0784221777		295500	R	For	06132007	1	A1	S1-1
295500_+	For_R_S_29550	76	57.053674782	-135.33113570	15.1097174291	0.1395352112		295500	R	For	06132007	1	A1	S1-1
295500_+	For_R_S_29550	93	57.0539805772	-135.32884708	15.3717537197	0.2288182651		295500	R	For	06132007	1	A1	SPEED LIMIT 25
295500_+	For_R_S_29550	129	57.0540143733	-135.32462445	19.6987780493	0.3944424069		295500	R	For	06132007	1	A1	ONE WAY (to the Left)
295500_+	For_R_S_29550	129	57.0540143733	-135.32462445	19.6987780493	0.3944424069		295500	R	For	06132007	1	B1	DO NOT ENTER
295500_+	For_R_S_29550	130	57.0539919459	-135.32448418	19.4757441652	0.3999495659		295500	R	For	06132007	1	A1	DO NOT ENTER

Delivered Features



Delivered Features



Photolog Data – Feature Integration

Feature Examples Include:

bridges, culverts, guardrails, luminaires, paved shoulders, rest areas, rumble strips, signs, and turnouts

Geodatabase Centerline Network

- CDS route number – 292000
- route name – Craig/Klawock/ Hollis Hwy
- area shown – mpt 27.980 to 28.300

Original Feature Locations

- green squares – sign locations

Integrate Feature Locations

- snap sign locations to CDS route
- extract CDS route mpt value for each sign location

Integrated Product

- snapped sign location table is exported to the geodatabase for use with GIS, HAS, and MMS

Integrated Extracted Features

- Culverts
- Signs
- Turnout
- Guardrail
- Bridge

ADOT Enterprise Geodatabase
Point & Line Events

Point Events

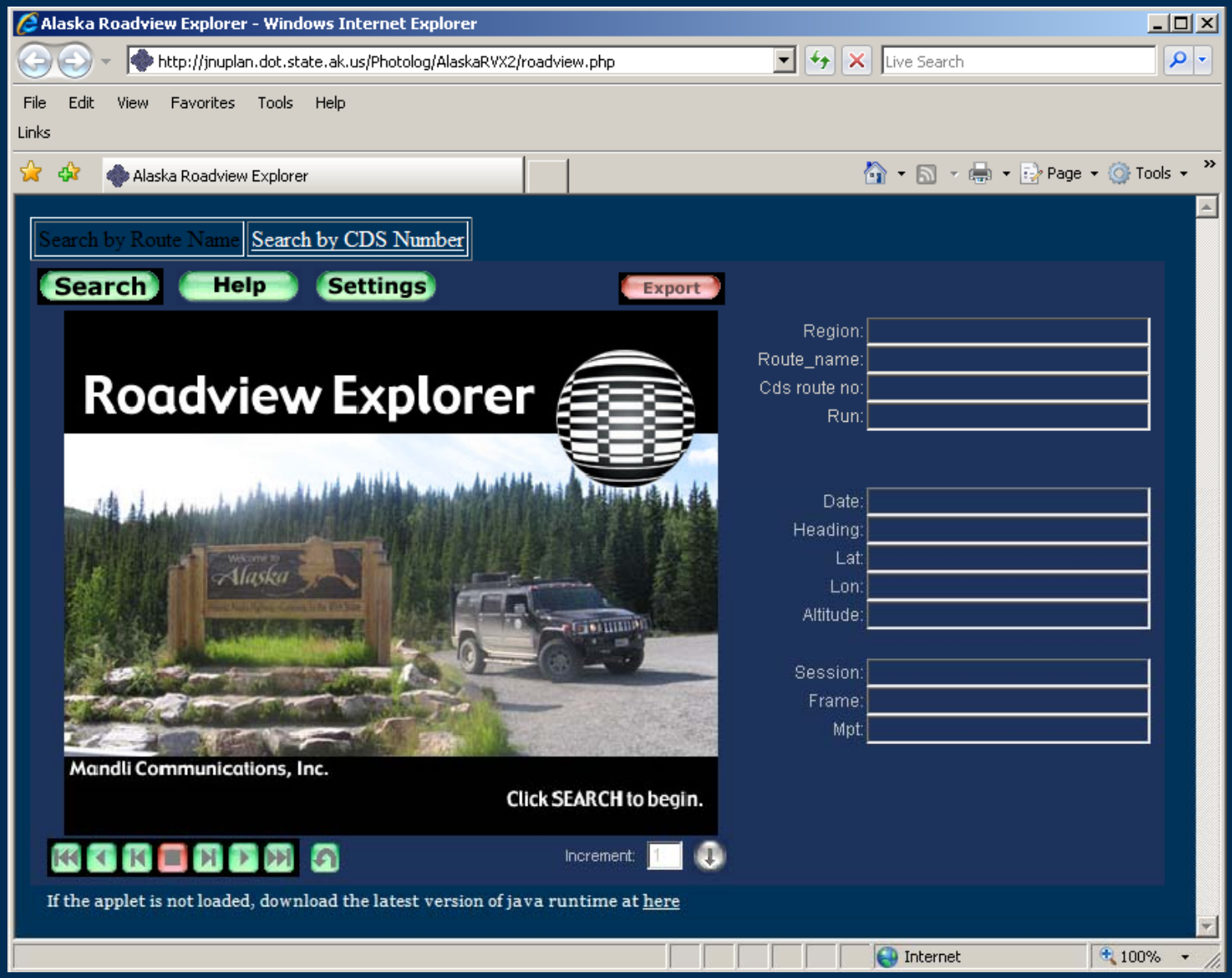
Sign (milepost)
Cultural feature
Traffic signal
Maint, facility
Culvert
Traffic station
Enviro Point
Intersection
MMS Asset Group
Acc Named Inter
Accident

Line Events

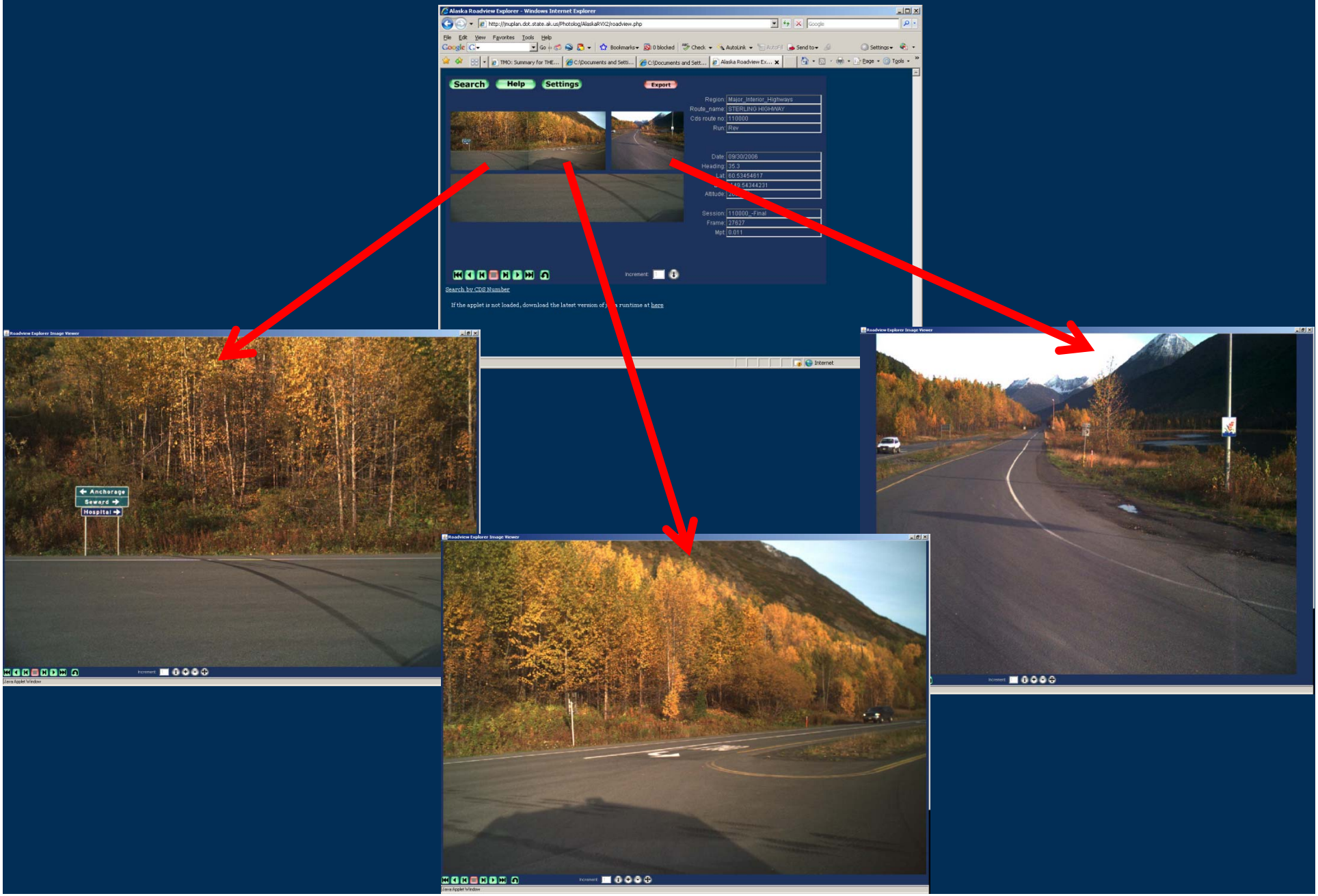
Bridge
NHS
AHS
STRAHNET
Federal Aid
AK Route #
FC
AK Forest Hwy
STIP
Rest Areas
Turnouts
Rumble Strips
Guardrail
Traffic Direction
Paved Shoulders

# of Lanes
Median
Road Surface
PMS section
Posted speed
HPMS Link
Traffic Link
MMS Inventory
MMS Responsibility
MMS Category
MMS Group
Acc Named Int
Acc Named seg

Web Based Viewer – internal only

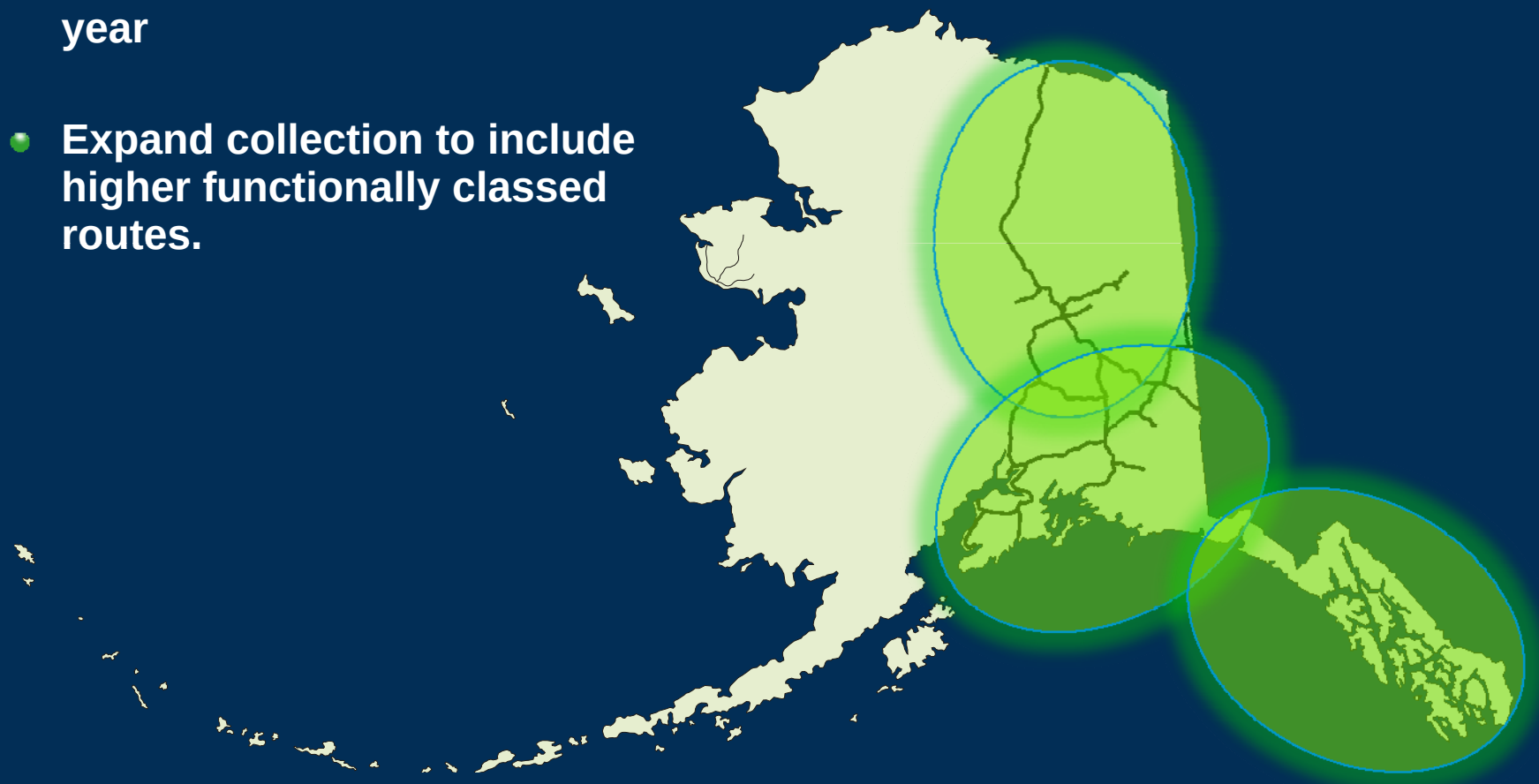


Roadview Explorer Features



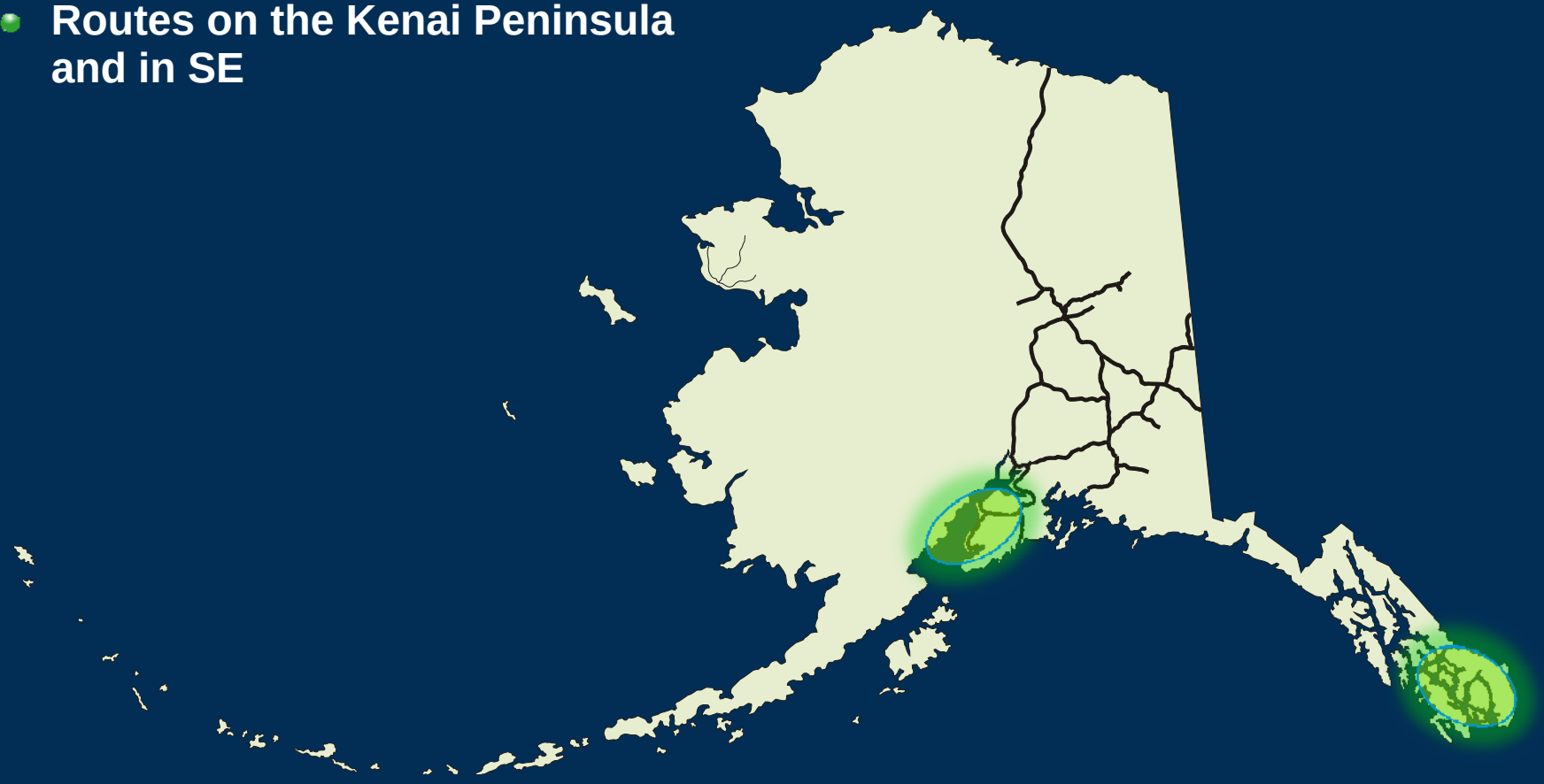
Future Data Collection

- **1/3 of the state network each year**
- **Expand collection to include higher functionally classed routes.**



Feature Extraction Test Areas

- **Routes on the Kenai Peninsula and in SE**



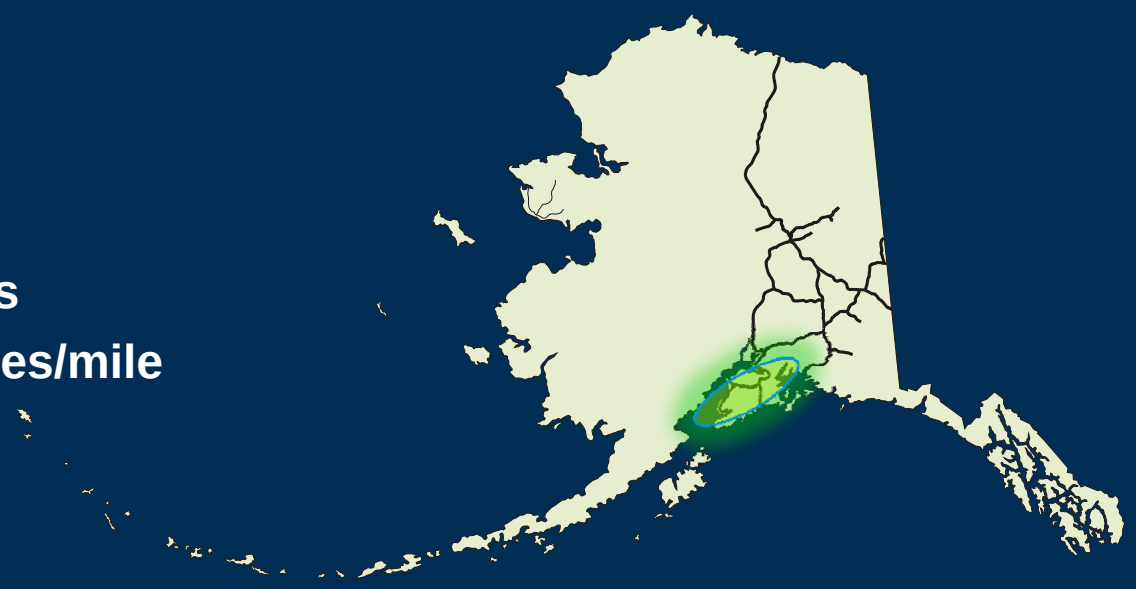
Kenai Feature Extraction

Sterling Highway (139 miles)

- **11 bridges**
- **197 culverts**
- **209 guardrails**
- **342 luminaires**
- **1 rest area**
- **10 rumble strips**
- **33 shoulders**
- **1896 signs**
- **72 turnouts**
- **2771 total features**
- **Average 20 features/mile**

Kenai:

- **99 routes 374 cl miles**
- **5160 features**
- **Average 14 features/mile**



Southeast Feature Extraction

Ketchikan:

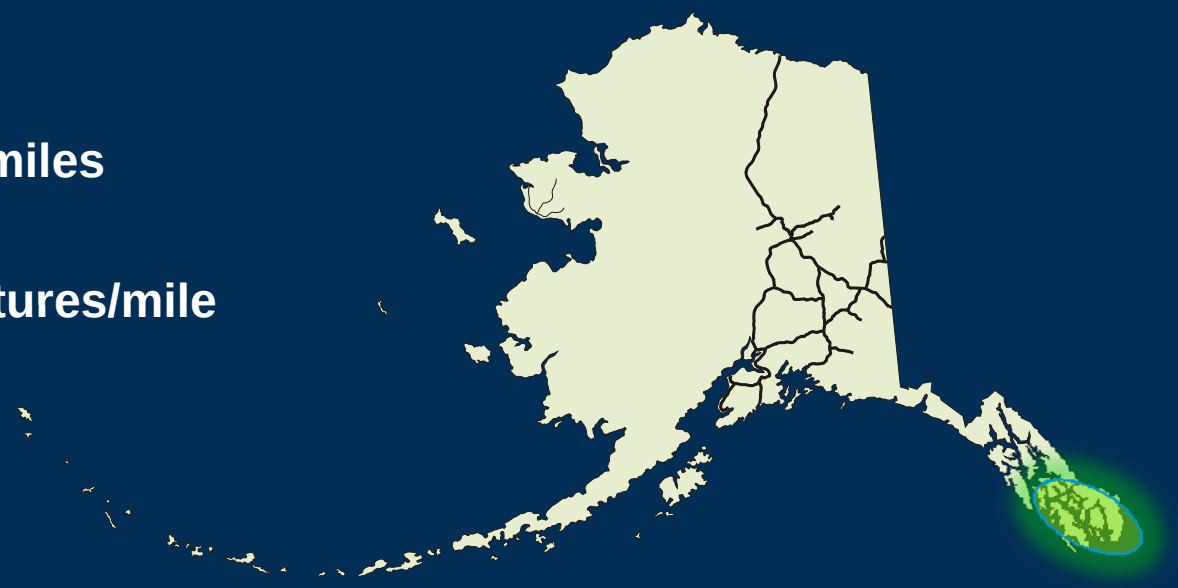
- **72 routes 69 CL miles**
- **3523 features**
- **Average 51 features/mile**

Wrangell:

- **13 routes 48 CL miles**
- **1082 features**
- **Average 22.5 features/mile**

Petersburg:

- **11 routes 60 CL miles**
- **1515 features**
- **Average 25.5 features/mile**



Statewide Feature Extraction

Statewide:

- **8800 miles**
- **42,160 Signs**
- **13,162 Culverts**
- **55,322 Total**

Linkage to Safety

- **Highway Safety Improvement Program**
- **Strategic Highway Safety Plan**
- **Design & Construction**
- **Traffic & safety analysis**
- **Bridge management**
- **Pavement management**
- **MMIRE – Model Minimum Inventory of Roadway Elements**

Contacts

Jack Stickel (465-6998) jack.stickel@alaska.gov

Sean Jordan (465-8950) sean.jordan@alaska.gov

Kerry Kirkpatrick (465-8957) kerry.kirkpatrick@alaska.gov