



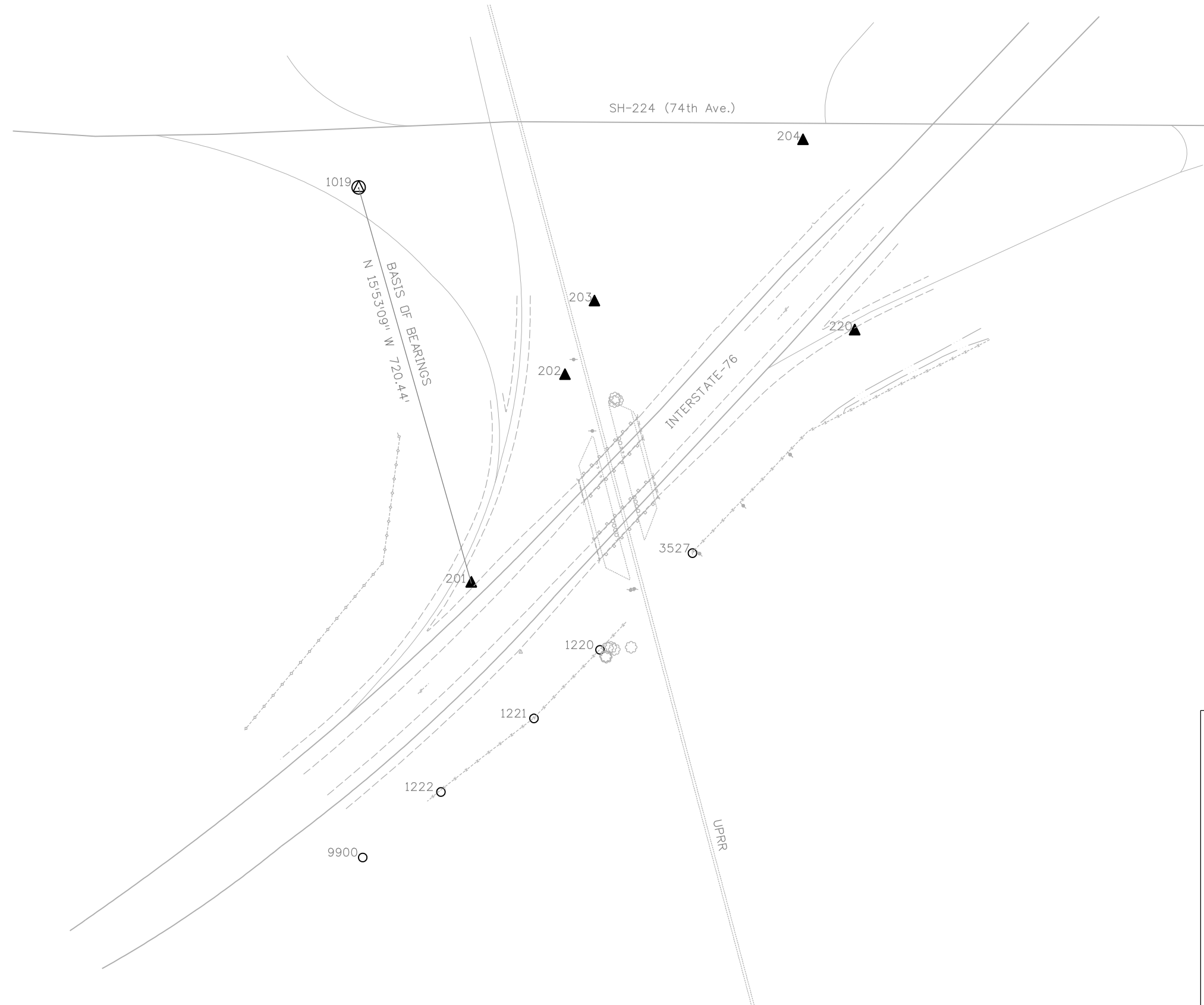
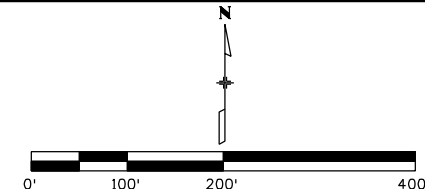
Sheet Revisions

Date mm/yy	Description XXXXXXXX	Initials XXX

Land Survey Control Diagram

Title Sheet

Project Number: BR 0761-192			
Project Location: I-76 Bridge over UPRR			
I-76 MP 7.7-8.3 536. T2S, R68W 6TH PM			
Project Code:	Last Mod. Date	Subset	Sheet No.
15574	03-27-08	1 of 2	3.01



GENERAL NOTES:

1. This **Land Survey Control Diagram** is to document the recovery and/or establishment of survey points that will be the basis of future surveys for design purposes, right-of-way acquisitions, monumentation, and/or roadway construction. This Land Survey Control Diagram is not a Monumented Land Survey or Boundary Survey and does not address matters of title.
2. **BASIS OF BEARINGS:** Grid bearings of the Colorado coordinate system of 1983, north zone, determined by a fast static GPS survey of the control points shown hereon. The line between point 1019 and point 201, monumented as shown herein, bears S15°53'09"E, a distance of 720.44 feet.
3. Geodetic coordinates are NAD '83(1992) based on a fast static GPS survey holding published values on the primary control points listed herein.
4. **Project specific** coordinates were obtained by multiplying the project's state plane coordinates by 1.0002649042. Units are in US survey feet: 1 survey foot = (1200/3937) meters
5. Horizontal Control Tolerances meet the precision requirements of CDOT type A control (+/- 0.07' with 95% certainty).
6. Vertical Datum: Elevations are NAVD'88 established by digital differential levels previously run for CDOT Project IM 00761-187 by CDOT and consultant crews from Adams County Station 95.0206, elevation = 5115.58', through CDOT control point 1019, elevation = 5133.80'.
7. Elevations on control points were established by digital differential levels with an accuracy meeting or exceeding 0.035' times the square root of the distance leveled in miles.

NOTICE: According to Colorado law you **must** commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

SURVEYOR'S STATEMENT

I, Donald D. Hansen, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that this Land Survey Control Diagram was prepared and the field survey it represents was performed under my responsible charge and, based upon my knowledge, information and belief is in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

Donald D. Hansen, PLS No. 14599

Date



Sheet Revisions

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Land Survey Control Diagram

Plan Sheet

Project Number: BR 0761-192			
Project Location: I-76 Bridge over UPRR			
I-76 MP 7.7-8.3 536. T2S, R68W 6TH PM			
Project Code:	Last Mod. Date	Subset	Sheet No.
15574	03-27-08	2 of 2	3.02

Existant Control Points used in constraining Fast Static GPS Survey (Published elevations)

Name	Latitude	Longitude	Ellipsoid Height	Convergence Angle	Northing (SP-501)	Easting (SP-501)	Name	Northing (Project)	Easting (Project)	Elevation NAVD'88	Description
221	39°50'26.18771"N	104°54'01.18607"W	5096.77	0°23'14.9"	1185354.135	3168391.220	221	1185668.139	3169230.541	5154.24	HARN point RODRIGUEZ PID - AB3293
222	39°50'21.84997"N	104°57'58.13992"W	5139.17	0°20'41.8"	1184797.093	3149911.289	222	1185110.949	3150745.715	5195.91	HARN point ROTELLA PID - AB3303
1019	39°49'49.65323"N	104°56'44.04515"W	5076.85	0°21'29.7"	1181574.763	3155711.216	1019	1181887.766	3156547.178	5133.80	CDOT Type 2 mon. w/3-1/4" Alum. Cap "GPS 19 1.074035 LS11434 ZBS"
dsrc	39°59'29.12991"N	105°15'39.67589"W	5437.12	0°09'15.9"	1239813.401	3066959.140	dsrc				DSRC (BOULDER CORS ARP) NAD'83 (CORS) 2002 PID - AI2151
pltc	40°10'53.71231"N	104°43'33.33347"W	4937.72	0°30'00.6"	1309938.829	3216279.445	pltc				PLTC (PLATTEVILLE CORS ARP) NAD'83 (CORS) 2002 PID - AF9517
zdv1	40°11'14.27224"N	105°07'37.96036"W	5060.91	0°14'27.1"	1311294.209	3104150.979	zdv1				ZDV1 (DENVER WAAS 1 CORS ARP) NAD'83 (CORS) 2002 PID - DF9219

Project Control Points, coordinates established with Fast Static GPS Survey (Benched elevations)

Name	Latitude	Longitude	Ellipsoid Height	Convergence Angle	Northing SP (501)	Easting SP (501)	Name	Northing (Project)	Easting (Project)	Elevation NAVD'88	Description
201	39°49'42.79501"N	104°56'41.57362"W	5080.25	0°21'31.3"	1180882.028	3155908.370	201	1181194.848	3156744.384	5137.22	set CDOT type 2 mon. w/3-1/4" Alum. Cap "CP 201"
202	39°49'46.38216"N	104°56'39.43969"W	5054.72	0°21'32.6"	1181246.033	3156072.573	202	1181558.949	3156908.631	5111.68	set CDOT type 2 mon. w/3-1/4" Alum. Cap "CP 202"
203	39°49'47.65284"N	104°56'38.76858"W	5048.48	0°21'33.1"	1181374.933	3156124.123	203	1181687.883	3156960.194	5105.44	set CDOT type 2 mon. w/3-1/4" Alum. Cap "CP 203"
204	39°49'50.42383"N	104°56'34.06266"W	5060.86	0°21'36.1"	1181657.617	3156489.484	204	1181970.642	3157325.652	5117.82	set CDOT type 2 mon. w/3-1/4" Alum. Cap "CP 204"
220	39°49'47.12258"N	104°56'32.93005"W	5081.48	0°21'36.8"	1181324.139	3156579.941	220	1181637.075	3157416.133	5138.46	found CDOT type 2 mon. w/3-1/4" Alum. Cap "7619 1.073038 PLS11434 ZBS"
1019	39°49'49.65323"N	104°56'44.04515"W	5076.85	0°21'29.7"	1181574.763	3155711.216	1019	1181887.766	3156547.178	5133.80	found CDOT type 2 mon. w/3-1/4" Alum. Cap "GPS 19 1.074035 LS11434 ZBS"

Topo. property pin evidence (single base RTK, GPS derived elevations)

Name	Northing (Project)	Easting (Project)	Elevation NAVD'88	Description
1220	1181078.43	3156969.87	5101.40	1" Yellow Plastic cap "LS 29043"
1221	1180958.18	3156854.19	5102.17	1" Orange Plastic cap "LS 29043"
1222	1180829.18	3156691.17	5103.60	No. 4 rebar, no cap
3527	1181247.90	3157131.99	5101.88	1" Red Plastic cap illegible
9900	1180714.38	3156554.18	5103.88	1" Yellow Plastic cap "LS 6973"

Local site settings

Project latitude: 39°49'49.65323"N
 Project longitude: 104°56'44.04515"W
 Project height: 5076.847sft
 Ground scale factor: 1.0002649042
 False northing offset: -313.003sft
 False easting offset: -835.962sft

ADAMS COUNTY SURVEY DEPOSITING CERTIFICATE:

Deposited this 12th day of May, 2008, at _____ o'clock .M. in Book 1 at page 3550 of Land Surveys/Right of Way Surveys, under Reception No. 2008-130.

By: _____

Title: _____