



Region I
Address: 18500 East Cofax Avenue
Aurora, CO 80011
Phone: (303) 757-9744 FAX: (303) 757-9746

Survey Unit: Joesph P. Conway

Sheet Revisions

mm/yy	xxxx	xxx



I-70 MP 234.10 to MP 234.50

Located in:
Part of Section 25,
Township 3 South, Range 74 West,
of the 6th Principal Meridian,
Clear Creek County, Colorado.



Survey Control Diagram

Plan Sheet				
Project Number: IM 0703-276				
Project Location: DUMONT PORT OF ENTRY				
Project Location:				
Project Code:	Last Mod. Date	Subset Sheets	Sheet No.	Total No. of Sheets
13499	00-00-00	1 of 2		2

GEODETTIC COORDINATE SUMMARY TABLE
(ADJUSTED FIELD DATA)

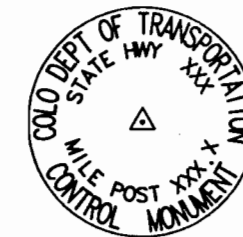
POINT NAME	GEODETTIC COORDINATES NAD-83(92) (CHARN)		ELLIP. HEIGHT	MAPPING ANGLE	COMBINED FACTOR	NAD 83(92) ZONE 0502	
	LATITUDE(N)	LONGITUDE(W)				NORTHING (m)	EASTING (m)
I-70 CM-MP 234.10	39° 45' 57.79713" N	105° 36' 57.71847" W	2436.357	0° 04' 23.451"	0.999620700	519360.884	904459.564
I-70 CM-MP 234.50	39° 45' 55.47321" N	105° 36' 31.10665" W	2420.018	0° 04' 06.667"	0.999623142	519188.429	905092.872
I-70 CM-MP 234.31	39° 45' 55.97813" N	105° 36' 45.40701" W	2432.591	0° 04' 15.686"	0.999621921	519104.414	904752.522

PROJECT COORDINATE SUMMARY TABLE
(ADJUSTED FIELD DATA IN METERS)

POINT NAME	PROJECT COORDINATES		ELEV.(m) (NGVD '29)	DESCRIPTION
	NORTH (m)	EAST (m)		
I-70 CM-MP 234.10	214561.1028	294862.9378	2447.586	Found CDOT Type II Control Monument
I-70 CM-MP 234.50	214488.6837	295496.4985	2431.242	Found CDOT Type II Control Monument
I-70 CM-MP 234.31	214504.6616	295156.0069	2443.824	Found CDOT Type II Control Monument

PROJECT COORDINATE SUMMARY TABLE
(ADJUSTED FIELD DATA IN FEET)

POINT NAME	PROJECT COORDINATES		ELEV(ft) (NGVD '29)	DESCRIPTION
	NORTH (ft)	EAST (ft)		
I-70 CM-MP 234.10	703939.2180	967396.1550	8030.12	Found CDOT Type II Control Monument
I-70 CM-MP 234.50	703701.6230	969474.7620	7976.50	Found CDOT Type II Control Monument
I-70 CM-MP 234.31	703754.0440	968357.6660	8017.78	Found CDOT Type II Control Monument



Typical Control Monument Cap
Not to Scale



CM-MP - Control Point Monuments set by CDOT. They are CDOT type 2 monuments, a 3-1/4" dia. aluminum control monument cap (as shown) on a 3' X 3/4" dia. flinned aluminum security rod on a 3' X 3/4" dia. smooth aluminum rod.

BASIS OF BEARINGS: Bearings used in the calculation of coordinates are based on a grid bearing of N 87° 18' 48" W from CM-MP 234.50 to CM-MP 234.31, as obtained from a Global Positioning System (GPS) survey based on the Colorado High Accuracy Reference Network (CHARN).

BASIS OF ELEVATIONS: Project is based on a CDOT Type II Control Monument, a found 3 1/4" Alum. Cap stamped 234.5 with a NGVD '29 and project elevation of 2431.242 meters or 7976.50 feet.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83(92) coordinates. The combined elevation/scale factor used to modify the state plane coordinates to project coordinates was 1.000378222. After modifying the state plane coordinates to project coordinates the coordinates were truncated by 304,996.179m in the Northing and by 609,938.708m in the Easting. The coordinates were then converted to US Survey feet. The CHARN is based on the NAD '83(92) datum.

NOTE: This control survey is for the use of the Colorado Department of Transportation personnel. The survey is not a complete boundary survey and does not subdivide land. Title policy, title commitment, and title research were not part of this control survey, therefore, easements, rights, and restrictions of record are not shown. The verification of the physical evidence with relation to easements, rights of way, property boundaries, and restriction, as described in the instruments of record, were not included in this control survey.

NOTE: Refer to M-629-1 Survey Monuments of the Standard Plans, Colorado Department of Transportation, M & S Standards November 1992 for survey monument descriptions. Refer to M-100-1 Standard Symbols of the Standard Plans, Colorado Department of Transportation, M & S Standards November 1992 for standard symbol definitions.

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 statement shown hereon.

SURVEYORS STATEMENT: I, David A. Stewart, a Professional Land Surveyor in the State of Colorado, hereby state that this Control Survey Diagram was prepared under my direct supervision this 8th day of February, 2001, from a field survey performed under my supervision and checking from December 14, 2000 to January 08, 2001, for and on behalf of the Department of Transportation, State of Colorado, and is not a Land Survey Plat or Right-of-Way Survey Plat and to the best of my knowledge and belief this control survey, as shown, meets the minimum horizontal control tolerances of a CDOT Type B Survey, as listed in Chapter Three of the Colorado Department of Transportation 1992 Survey Manual.

PROJECT NARRATIVE:

The purpose of this topographic survey is for the replacement of the scale and pavement at the Port of Entry on the south side of I-70 at Dumont. The inspection area is to be widened and some minor hydraulic work is to be done on this site.

I, David A. Stewart, while employed with CDOT performed a TMOSS survey for the purpose of densifying a survey previously done by contractors. I found 3 existing control monuments that were set by contract surveyors while working for CDOT. The Project data is a combination of data provided to CDOT by Mountain Surveying and Mapping, Inc. and Tri-Consultants, Inc. Tri-Consultants performed a control survey in 1990. MSM, Inc. reobserved these monuments and set new control monuments as deemed necessary in 1999. The CM-MP's 234.10 and 234.50 are Tri-Consultants monuments and CM-MP 234.31 (should be stamped 234.31) is a monument set in 1999 by MSM, Inc.

Additional TMOSS field survey data was provided to CDOT by MSM, Inc. from a survey performed during the summer of 2000. I, while employed with CDOT updated the TMOSS data around the Port of Entry on the south side of I-70. This TMOSS survey was done between December 14, 2000 and January 08, 2001. To the best of my knowledge and belief this TMOSS survey meets the minimum horizontal control tolerances of a CDOT type "D" survey as listed in Chapter Three of the Colorado Department of Transportation 1992 survey manual.

CONSTRUCTION SURVEYING AND MONUMENTATION REQUIREMENTS:

- This Control Survey Diagram represents the horizontal and vertical control for the project established by the Division. It is possible that some of the survey control monuments listed have been disturbed or obliterated. It is the Contractor's responsibility to verify the existence and stability of the control monuments before submitting a bid price.
- All Type 1 and Type 2 monuments shall be set flush with the ground. Witness posts shall be installed 1 foot from and facing all Type 1 and Type 2 monuments, or as directed by the Project Engineer.
- Installation of Type 3 and Type 3-A monuments shall be completed in the same day that installation is commenced. Under no circumstances shall holes in the roadway be left open overnight.
- When installing Type 3-A monuments, the aluminum monument box shall be positively secured in the roadway surface. The monument box shall be caulked with asphalt caulking between the monument box and the edges of the roadway surface to provide a positive moisture barrier around the monument box.
- Control survey procedures, statistical analysis, and accuracy obtained for horizontal and vertical control shall be documented in the field book.
- Legible copies of the field books shall be submitted to the Project Engineer for review on a monthly basis.
- It is ultimately the prime Contractors responsibility to insure that these requirements, as well as any contained in the CDOT specifications, project special provisions, and CDOT Survey Manual are fulfilled under this contract.
- The minimum staking intervals for each item are described on the plans or in the CDOT Survey Manual. If the contractor wishes to reduce the minimum intervals, a Contract Modification Order must be negotiated and the cost of the item reduced accordingly.

David A. Stewart
Colorado PLS No. 28664

Date



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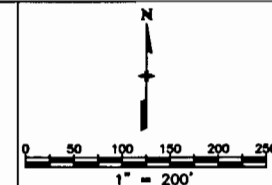
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Project Code:	Last Mod. Date	Subst. Sheets	Sheet No.	Total No. of Sheets
13499	00-00-00	1 of 2		

DEPOSITED THIS DAY OF 18 AT M. FOR INFORMATION
 ONLY IN BOOK OF THE COUNTY LAND SURVEY/RIGHT OF WAY
 SURVEYS AT PAGE RECEPTION NUMBER

SIGNED
 DEPT.

13499cad.dwg 05 JAN 2001 15:06:22.3 PLOT/EDIT by DAVE STEWART

