

ARAPAHOE COUNTY

VERTICAL CONTROL

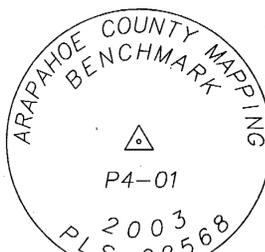
PHASE 4

LEGEND

- P4-47 Δ = ARAPAHOE COUNTY BENCHMARK
- P4-19 \circ = COAST AND GEODETIC SURVEY DISK
- P4-46 \otimes = CDOT CONTROL MONUMENT
- P4-08 \square = USGS DISK



TYPICAL FOUND CDOT MONUMENT CAP



TYPICAL ARAPAHOE COUNTY MONUMENT CAP SET

POINT-ID	Latitude	Longitude	Orthometric Height (m)	Orthometric Height (ft)	Adjusted Geopotential (GPU)	Gravity (kgal)	Monument Description	Monument Type	Location
P4-01	39 38 14	104 18 46	1704.444	5592.00	1669.84297	0.9796272	APC BM P4-01	TYPE 2	0.55 MILES EAST OF COUNTY ROAD 157, ON THE NORTH SIDE OF COUNTY ROAD 30, EAST OF P.P.
P4-02	39 38 13	104 18 14	1702.896	5586.92	1668.32864	0.9796285	APC BM P4-02	TYPE 2	1.00 MILES EAST OF COUNTY ROAD 157, AT THE SOUTHEAST CORNER OF COUNTY ROADS 30 AND 161.
P4-03	39 38 14	104 17 37	1706.534	5598.86	1671.89601	0.9796301	APC BM P4-03	TYPE 2	1.5 MILES EAST OF COUNTY ROAD 157, ON THE SOUTH SIDE OF COUNTY ROAD 30 AT A FENCE CORNER.
P4-04	39 38 14	104 17 07	1693.636	5556.54	1659.26086	0.9796314	APC BM P4-04	TYPE 2	1.95 MILES EAST OF COUNTY ROAD 157, ON THE SOUTH SIDE OF COUNTY ROAD 30 AT A FENCE CORNER.
P4-05	39 38 30	104 16 34	1658.449	5441.09	1624.78911	0.9796338	APC BM P4-05	TYPE 2	2.55 MILES EAST OF COUNTY ROAD 157, ON THE NORTH SIDE OF COUNTY ROAD 30, WEST OF A GATE.
P4-06	39 38 15	104 15 53	1649.361	5411.28	1615.88661	0.9796349	APC BM P4-06	TYPE 2	3.00 MILES EAST OF COUNTY ROAD 157, ON THE NORTH SIDE OF COUNTY ROAD 30.
P4-07	39 38 10	104 15 16	1640.649	5382.69	1607.35313	0.9796363	APC BM P4-07	TYPE 2	3.55 MILES EAST OF COUNTY ROAD 157, ON THE SOUTH SIDE OF COUNTY ROAD 30, BY A METAL FENCE BRACE.
P4-08	39 38 14	104 14 56	1654.568	5428.36	1620.99254	0.9796375	USGS TT207C	BM DISK	3.9 MILES EAST OF COUNTY ROAD 157, ON THE SOUTH SIDE OF COUNTY ROAD 30, AT THE INTERSECTION WITH COUNTY ROAD 173.
P4-09	39 38 39	104 14 52	1639.052	5377.46	1605.79338	0.9796392	APC BM P4-09	TYPE 2	4.8 MILES SOUTH OF HIGHWAY 40, ON THE EAST SIDE OF COUNTY ROAD 173, AT THE SOUTH END OF A METAL FENCE BRACE.
P4-10	39 39 07	104 14 51	1628.777	5343.75	1595.72966	0.9796410	APC BM P4-10	TYPE 2	4.3 MILES SOUTH OF HIGHWAY 40, ON THE EAST SIDE OF COUNTY ROAD 173, NORTH OF A GATE AT A METAL FENCE BRACE.
P4-11	39 39 33	104 14 52	1625.818	5334.04	1592.83257	0.9796426	APC BM P4-11	TYPE 2	3.8 MILES SOUTH OF HIGHWAY 40, ON THE EAST WEST SIDE OF COUNTY ROAD 173, SOUTH OF A P.P. WEST
P4-12	39 40 00	104 14 51	1627.572	5339.79	1594.55458	0.9796444	APC BM P4-12	TYPE 2	3.3 MILES SOUTH OF HIGHWAY 40, ON THE WEST SIDE OF COUNTY ROAD 173, AT A METAL FENCE BRACE.
P4-13	39 40 25	104 14 51	1615.637	5300.64	1582.86299	0.9796461	APC BM P4-13	TYPE 2	2.8 MILES SOUTH OF HIGHWAY 40, ON THE WEST SIDE OF COUNTY ROAD 173, AT A METAL FENCE BRACE.
P4-14	39 40 58	104 14 50	1611.270	5286.31	1578.58809	0.9796485	APC BM P4-14	TYPE 2	2.3 MILES SOUTH OF HIGHWAY 40, ON THE WEST SIDE OF COUNTY ROAD 173, AT A METAL FENCE BRACE.
P4-15	39 41 18	104 14 49	1604.967	5265.63	1572.41473	0.9796500	APC BM P4-15	TYPE 2	1.8 MILES SOUTH OF HIGHWAY 40, ON THE EAST SIDE OF COUNTY ROAD 173, AT A FENCE CORNER AND P.P.
P4-16	39 41 49	104 14 50	1611.191	5286.05	1578.51752	0.9796524	APC BM P4-16	TYPE 2	1.3 MILES SOUTH OF HIGHWAY 40, ON THE EAST SIDE OF COUNTY ROAD 173, NORTH OF A P.P.
P4-17	39 42 16	104 14 50	1621.577	5320.12	1588.69663	0.9796545	APC BM P4-17	TYPE 2	0.8 MILES SOUTH OF HIGHWAY 40, ON THE EAST SIDE OF COUNTY ROAD 173, SOUTH OF A P.P.
P4-18	39 42 36	104 14 50	1599.250	5246.87	1566.82348	0.9796560	APC BM P4-18	TYPE 2	0.4 MILES SOUTH OF HIGHWAY 40, ON THE WEST SIDE OF COUNTY ROAD 173, AT A FENCE CORNER.
P4-19	39 42 55	104 14 53	1594.409	5230.99	1562.08143	0.9796570	NSRS Y 258	BM DISK	AT THE SOUTHWEST CORNER OF THE INTERSECTION OF HIGHWAY 40 AND COUNTY ROAD 173, NORTH OF THE RAILROAD TRACKS.
P4-20	39 43 28	104 14 48	1584.393	5198.13	1552.27016	0.9796584	APC BM P4-20	TYPE 2	0.6 MILES NORTH OF HIGHWAY 40, ON THE EAST SIDE OF COUNTY ROAD 173, AT A FENCE CORNER UNDER A ELECTRIC TRANSMISSION LINE.
P4-21	39 43 54	104 14 49	1579.284	5181.37	1547.26604	0.9796591	APC BM P4-21	TYPE 2	1.1 MILES NORTH OF HIGHWAY 40, ON THE EAST SIDE OF COUNTY ROAD 173, AT A FENCE BRACE.
P4-22	39 44 20	104 14 49	1576.048	5170.75	1545.09640	0.9796598	APC BM P4-22	TYPE 2	1.55 MILES NORTH OF HIGHWAY 40 IN THE SOUTHEAST CORNER OF COUNTY ROADS 173 AND 2.
P4-23	39 44 20	104 14 13	1573.246	5161.56	1541.35369	0.9796614	APC BM P4-23	TYPE 2	0.5 MILES EAST OF COUNTY ROAD 173, ON THE SOUTH SIDE OF COUNTY ROAD 2, EAST OF A DRIVEWAY.
P4-24	39 44 19	104 13 32	1569.460	5149.14	1537.64626	0.9796628	APC BM P4-24	TYPE 2	1.1 MILES EAST OF COUNTY ROAD 173, ON THE SOUTH SIDE OF COUNTY ROAD 2.
P4-25	39 44 15	104 13 16	1574.703	5166.34	1542.78374	0.9796632	APC BM P4-25	TYPE 2	1.4 MILES EAST OF COUNTY ROAD 173, ON THE SOUTH SIDE OF COUNTY ROAD 2, NEAR BURIED UTILITY MARKERS.
P4-26	39 44 21	104 12 35	1573.416	5162.11	1541.52429	0.9796645	APC BM P4-26	TYPE 2	1.9 MILES EAST OF COUNTY ROAD 173, IN THE NORTHWEST CORNER OF THE INTERSECTION OF COUNTY ROADS 2 AND 181, SOUTH OF A P.P.
P4-27	39 43 53	104 12 36	1576.054	5170.77	1544.10710	0.9796633	APC BM P4-27	TYPE 2	0.5 MILES SOUTH OF COUNTY ROAD 2, ON THE WEST SIDE OF COUNTY ROAD 181, AT A METAL FENCE BRACE.
P4-28	39 43 28	104 12 34	1579.164	5180.97	1547.15288	0.9796623	APC BM P4-28	TYPE 2	1.0 MILES SOUTH OF COUNTY ROAD 2, ON THE EAST SIDE OF COUNTY ROAD 181, SOUTH OF P.P. #123.
P4-29	39 43 06	104 12 35	1582.901	5193.23	1550.81279	0.9796613	APC BM P4-29	TYPE 2	1.5 MILES SOUTH OF COUNTY ROAD 2, ON THE WEST SIDE OF COUNTY ROAD 181.
P4-30	39 42 38	104 12 33	1598.244	5243.57	1565.84361	0.9796599	APC BM P4-30	TYPE 5	2.0 MILES SOUTH OF COUNTY ROAD 2, IN THE SOUTHWEST CORNER OF THE BRIDGE OVER I-70.
P4-31	39 42 10	104 12 35	1591.413	5221.16	1559.14860	0.9796582	APC BM P4-31	TYPE 2	1.5 MILES NORTH OF COUNTY ROAD 18, IN THE NORTHEAST CORNER OF THE INTERSECTION OF COUNTY ROAD 181 AND BATES AVE.
P4-32	39 41 45	104 12 35	1597.682	5241.73	1565.28798	0.9796567	APC BM P4-32	TYPE 2	1.0 MILES NORTH OF COUNTY ROAD 18, ON THE WEST SIDE OF COUNTY ROAD 181, IN FRONT OF BYERS WELL #5.
P4-33	39 41 18	104 12 35	1604.784	5265.03	1572.24377	0.9796549	APC BM P4-33	TYPE 2	0.5 MILES NORTH OF COUNTY ROAD 18, ON THE EAST SIDE OF COUNTY ROAD 181, NORTH OF A P.P. AT FENCE CORNER.
P4-34	39 40 52	104 12 35	1607.620	5274.33	1575.01974	0.9796532	APC BM P4-34	TYPE 2	AT THE SOUTHWEST CORNER OF THE INTERSECTION OF COUNTY ROADS 181 AND 18.
P4-35	39 40 26	104 12 36	1609.909	5281.84	1577.25993	0.9796514	APC BM P4-35	TYPE 2	0.45 MILES SOUTH OF COUNTY ROAD 18, ON THE WEST SIDE OF COUNTY 181, AT A METAL FENCE BRACE.
P4-36	39 39 59	104 12 36	1613.816	5294.66	1581.08448	0.9796496	APC BM P4-36	TYPE 2	1.0 MILES SOUTH OF COUNTY ROAD 18, ON THE WEST SIDE OF COUNTY ROAD 181, AT THE SECOND METAL FENCE BRACE SOUTH OF A GATE.
P4-37	39 39 28	104 12 36	1620.553	5316.76	1587.68179	0.9796475	APC BM P4-37	TYPE 2	1.55 MILES SOUTH OF COUNTY ROAD 18, ON THE WEST SIDE OF COUNTY ROAD 181, AT A METAL FENCE BRACE.
P4-38	39 39 09	104 12 37	1622.219	5322.23	1589.31211	0.9796462	APC BM P4-38	TYPE 2	1.9 MILES SOUTH OF COUNTY ROAD 18, ON THE WEST SIDE OF COUNTY ROAD 181, AT A METAL FENCE BRACE AND ANGLE POINT IN THE FENCE.
P4-39	39 38 36	104 12 38	1634.617	5362.90	1601.45555	0.9796440	APC BM P4-39	TYPE 2	2.5 MILES SOUTH OF COUNTY ROAD 18, ON THE WEST SIDE OF COUNTY ROAD 181, AT A TELEPHONE RISER.
P4-40	39 38 16	104 12 39	1639.270	5378.17	1606.01256	0.9796427	APC BM P4-40	TYPE 2	2.9 MILES SOUTH OF COUNTY ROAD 18, AT THE NORTHWEST CORNER OF THE INTERSECTION OF COUNTY ROADS 181 AND 30.
P4-41	39 38 16	104 13 18	1635.424	5365.55	1602.24293	0.9796415	APC BM P4-41	TYPE 2	0.55 MILES WEST OF COUNTY ROAD 181, ON THE NORTH SIDE OF COUNTY ROAD 30.
P4-42	39 38 15	104 13 45	1618.103	5308.72	1585.26978	0.9796405	APC BM P4-42	TYPE 2	1.0 MILES WEST OF COUNTY ROAD 181, AT A GATE THAT CROSSES COUNTY ROAD 30, NORTH OF THE SOUTH RIGHT OF WAY FENCE.
P4-43	39 38 14	104 14 12	1618.723	5310.76	1585.87599	0.9796394	APC BM P4-43	TYPE 2	1.4 MILES WEST OF COUNTY ROAD 181, ON THE SOUTH SIDE OF THE RIGHT OF WAY, TRAVELED ROAD SURFACE HAS BEEN ABANDONED.
P4-44	39 42 38	104 13 11	1587.712	5209.02	1555.52342	0.9796591	APC BM P4-44	TYPE 2	1.45 MILES EAST OF COUNTY ROAD 173, ON THE NORTH SIDE OF HIGHWAY 40, AT M.P. 101.15
P4-45	39 42 42	104 13 35	1587.776	5209.23	1555.58582	0.9796589	APC BM P4-45	TYPE 2	IN BYERS IN THE NORTHWEST CORNER OF THE INTERSECTION OF HIGHWAY 40 AND MCDONNELL ST, SOUTH OF P.P., AT M.P. 100.8.
P4-46	39 42 50	104 14 13	1585.486	5201.72	1553.34184	0.9796585	CDOT M.P. 100.2	TYPE 2	0.5 MILES EAST OF COUNTY ROAD 173, ON THE NORTH SIDE OF HIGHWAY 40, AT THE NORTHWEST CORNER OF A BRIDGE, AT M.P. 100.2.
P4-47	39 43 05	104 15 21	1601.817	5255.29	1569.33769	0.9796558	APC BM P4-47	TYPE 2	0.5 MILES WEST OF COUNTY ROAD 173, ON THE SOUTH SIDE OF HIGHWAY 40, NORTH OF A P.P., AT M.P. 99.2.
P4-48	39 43 16	104 15 55	1599.473	5247.61	1567.03807	0.9796534	APC BM P4-48	TYPE 2	1.0 MILES WEST OF COUNTY ROAD 173, ON THE NORTH SIDE OF HIGHWAY 40, AT M.P. 98.7.
P4-49	39 43 28	104 16 22	1614.930	5298.32	1582.18014	0.9796518	APC BM P4-49	TYPE 2	1.5 MILES WEST OF COUNTY ROAD 173, ON THE NORTH SIDE OF HIGHWAY 40, AT M.P. 97.7.
P4-50	39 43 43	104 16 52	1624.228	5328.82	1591.28710	0.9796504	APC BM P4-50	TYPE 2	2.0 MILES WEST OF COUNTY ROAD 173, ON THE SOUTH NORTH SIDE OF HIGHWAY 40, AT M.P. 97.2.
P4-51	39 43 57	104 17 20	1625.055	5331.54	1592.09649	0.9796494	APC BM P4-51	TYPE 2	2.5 MILES WEST OF COUNTY ROAD 173, ON THE SOUTH SIDE OF HIGHWAY 40, AT M.P. 97.2.
P4-52	39 44 12	104 17 46	1644.708	5396.01	1611.35041	0.9796487	APC BM P4-52	TYPE 2	3.0 MILES WEST OF COUNTY ROAD 173, ON THE NORTH SIDE OF HIGHWAY 40, AT A FENCE CORNER, AT M.P. 96.7.
P4-53	39 44 19	104 18 20	1639.730	5379.68	1606.47067	0.9796473	APC BM P4-53	TYPE 2	3.5 MILES WEST OF COUNTY ROAD 173, ON THE NORTH SIDE OF HIGHWAY 40, AT M.P. 96.2
P4-54	39 44 18	104 18 59	1637.691	5372.99	1604.47060	0.9796455	APC BM P4-54	TYPE 2	4.0 MILES WEST OF COUNTY ROAD 173, ON THE NORTH SIDE OF HIGHWAY 40, AT M.P. 95.7
P4-55	39 44 05	104 19 18	1640.110	5380.93	1606.83840	0.9796441	APC BM P4-55	TYPE 2	IN STRASBURG, AT 1313 MONROE ST.
P3-14	39 44 01	104 19 12	1641.120	5384.24	1607.82728	0.9796441	APC BM P3-14	TYPE 5	AT I-70 MILEPOST 310.5 IN SOUTHEAST CORNER OF I-70 EASTBOUND BRIDGE.
P3-15	39 43 48	104 19 17	1641.717	5386.20	1608.41137	0.9796433	APC BM P3-15	TYPE 2	6.25 MILES NORTH OF COUNTY ROAD 30 ON THE WEST SIDE OF COUNTY ROAD 157, SOUTH OF P.P.
P3-16	39 43 27	104 19 16	1645.926	5400.01	1612.53362	0.9796422	APC BM P3-16	TYPE 2	5.8 MILES NORTH OF COUNTY ROAD 30 AT THE NORTHEAST CORNER OF COUNTY ROADS 157 AND 6.
P3-26	39 39 07	104 19 21	1692.461	5552.68	1658.10467	0.9796287	APC BM P3-26	TYPE 2	1.0 MILES NORTH OF COUNTY ROAD 30 AT THE NORTHEAST CORNER OF COUNTY ROADS 157 AND 26.
P3-27	39 38 40	104 19 22	1697.958	5570.72	1663.48761	0.9796272	APC BM P3-27	TYPE 2	0.5 MILES NORTH OF COUNTY ROAD 30 ON THE WEST SIDE OF COUNTY ROAD 157.
P3-28	39 38 14	104 19 22	1702.613	5585.99	1668.04697	0.9796259	APC BM P3-28	TYPE 2	AT THE NORTHEAST CORNER OF COUNTY ROAD 30 AND COUNTY ROAD 157.
A259	39 44 14	104 17 54	1644.598	5395.65	1611.24279	0.9796483	NSRS A 259	BM DISK	3.1 MILES WEST OF COUNTY ROAD 173, SOUTH OF HIGHWAY 40 RIGHT OF WAY, NORTH OF RAILROAD TRACKS.
BIJOU	39 38 14	104 17 24	1712.441	5618.23	N/A	N/A	C&GS DISK	H. DISK	1.7 MILES EAST OF COUNTY ROAD 157, ON THE SOUTH SIDE OF COUNTY ROAD 30 AT A FENCE CORNER.
BIJOU REF. #2	39 38 14	104 17 24	1712.45	5618.27	N/A	N/A	C&GS REF. DISK	RM DISK	1.71 MILES EAST OF COUNTY ROAD 157, ON THE SOUTH SIDE OF COUNTY ROAD 30 AT A FENCE CORNER.

- * Denotes Arapahoe County Vertical Control held fixed in adjustment
- ** Denotes Final Elevation adjusted by -0.020 cm because a 0.020 cm magnet was necessary to observe the monument.
- *** Denotes NSRS vertical control.
- **** Denotes elevation derived from turning points within a section.

NOTES:

1. NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECTS 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.
2. THE ELEVATIONS REPORTED HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), FIELD AND OFFICE PROCEDURES FOLLOWED FGCC 1ST ORDER CLASS II SPECIFICATIONS, THE EXISTING VERTICAL CONSTRAINTS ARE SECOND ORDER CLASS 0, THEREFORE THIS SURVEY IS CLASSIFIED AS A SECOND ORDER CLASS 0 SURVEY AS DEFINED BY NGS.
3. ALL GEODETIC POSITIONS LISTED HEREON ARE BASED UPON AUTONOMOUS GLOBAL POSITIONING SYSTEM (GPS) MEASUREMENTS AND HAVE A POSITIONAL TOLERANCE OF 30 FEET +. POSITIONS ARE RELATIVE TO THE NORTH AMERICAN DATUM OF 1983.
4. ALL MONUMENTS SET BY MOUNTAIN SURVEYING & MAPPING, INC. (MSM) ARE EITHER COLORADO DEPARTMENT OF TRANSPORTATION TYPE 2 OR TYPE 5 CONTROL MONUMENTS. A TYPE 2 CONSISTS OF BERTINSEN TOP SECURITY ROD MONUMENTS BEING 3 FOOT SMOOTH ALUMINUM ROD SECTIONS WITH A 3 FOOT ROD AT THE TOP SECTION CONNECTED BY FLOATING THREADS AND SELF LOCKING WASHERS, A SPIRAL DRIVE POINT ATTACHED TO THE BOTTOM AND A 3 1/4 INCH ALUMINUM CAP AFFIXED TO THE TOP. ADDITIONAL 3 FOOT SMOOTH ROD SECTIONS WERE ATTACHED TO THE BOTTOM SECTION UNTIL THE MONUMENT REACHED A STABLE DEPTH; MONUMENT DEPTHS RANGE FROM 6 TO 18 FEET. A TYPE 5 MONUMENT CONSISTS OF A 3 1/4 INCH ALUMINUM ROCK CAP DRILL SET AND ANCHORED WITH EPOXY INTO A CONCRETE STRUCTURE SUCH AS A BRIDGE.
5. THE EQUIPMENT USED IN THIS PROJECT CONSIST OF FIRST ORDER ELECTRONIC DIFFERENTIAL LEVELING EQUIPMENT AS OBTAINED BY NGS - A LEICA NA3003 AUTOMATIC PRECISE DIGITAL LEVEL (SERIAL NO. 281840) WITH A SET OF (2) 3m PRECISE DIGITAL BAR CODE INVAR RODS (SERIAL NO.'S 28582, 28589). STEEL TURNING PINS WERE USED AS TURNING POINTS.

6. THE ELEVATION DIFFERENCE DATA WAS CORRECTED FOR SYSTEMATIC ERRORS BY APPLYING CORRECTIONS THAT ACCOUNTED FOR ROD SCALE ERRORS, ROD INVAR TEMPERATURE, REFRACTION AND COLLIMATION ERROR. DUE TO THE SMALL EXTENTS OF THIS PROJECT IT WAS NOT NECESSARY TO APPLY CORRECTIONS THAT ACCOUNTED FOR EARTH TIDES AND CRUSTAL MOTION. GRAVITY EFFECTS WERE ACCOUNTED FOR USING NAVD88 MODELED GRAVITY AS PROVIDED BY NGS. THE MODELED GRAVITY VALUES WERE USED TO COMPUTE NAVD88 GEOPOTENTIAL NUMBERS AT EACH BENCHMARK. THE HELMERT ORTHOMETRIC REDUCTION EQUATION WAS USED TO REDUCE THE GEOPOTENTIAL VALUES TO NAVD88 HELMERT ORTHOMETRIC HEIGHTS. THIS IS THE CURRENT METHOD IN USE BY NGS.

7. THE DATA SHOWN HEREON IS A RESULT OF A SIMULTANEOUS ADJUSTMENT OF DIFFERENTIAL LEVELING AND GRAVITY DATA. SIX ARAPAHOE COUNTY VERTICAL CONTROL STATIONS WERE HELD FIXED IN THE FULL CONSTRAINT LEAST SQUARES ADJUSTMENT.
8. NO GUARANTEE AS TO THE ACCURACY OF THE INFORMATION CONTAINED ON THE ATTACHED DRAWING IS EITHER STATED OR IMPLIED UNLESS THIS COPY BEARS AN ORIGINAL SIGNATURE OF THE PROFESSIONAL LAND SURVEYOR NAMED HEREON.

CERTIFICATION:

I, Kevin C. Hoffman, Registered Land Surveyor in the State of Colorado, do hereby certify that this map reflects the results of a vertical control survey completed in 2003, made under my direct supervision and is true and correct to the best of my knowledge and belief.

Date 1-12-04

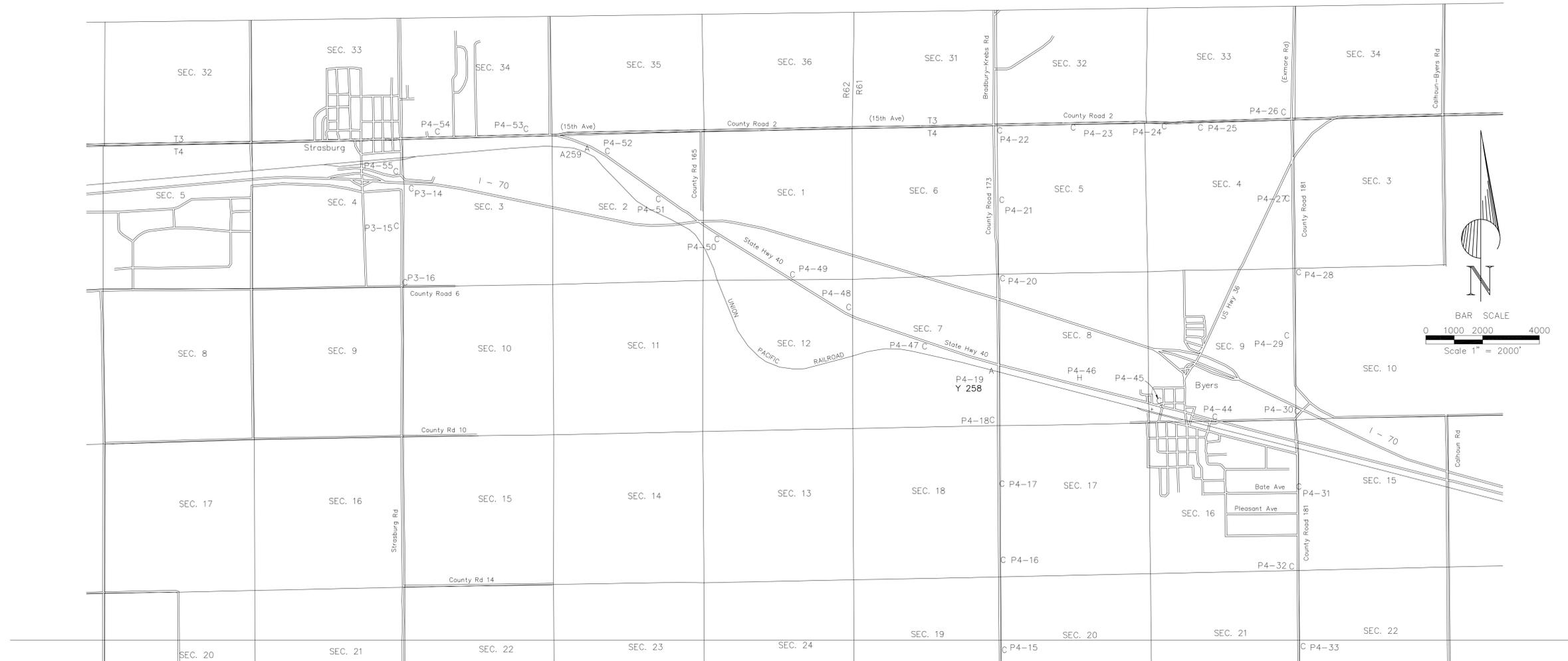


REVISIONS		
NO.	DATE	DESCRIPTION

MSM
MOUNTAIN SURVEYING & MAPPING, INC.
8751 E. HAMPDEN AVE. SUITE B-1
DENVER, COLORADO 80231
(303) 306-1858

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ARAPAHOE COUNTY VERTICAL CONTROL PHASE 4



LEGEND

- P4-47C = ARAPAHOE COUNTY BENCHMARK
- P4-19 A = COAST AND GEODETIC SURVEY DISK
- P4-46 H = CDOT CONTROL MONUMENT
- P4-08B = USGS DISK

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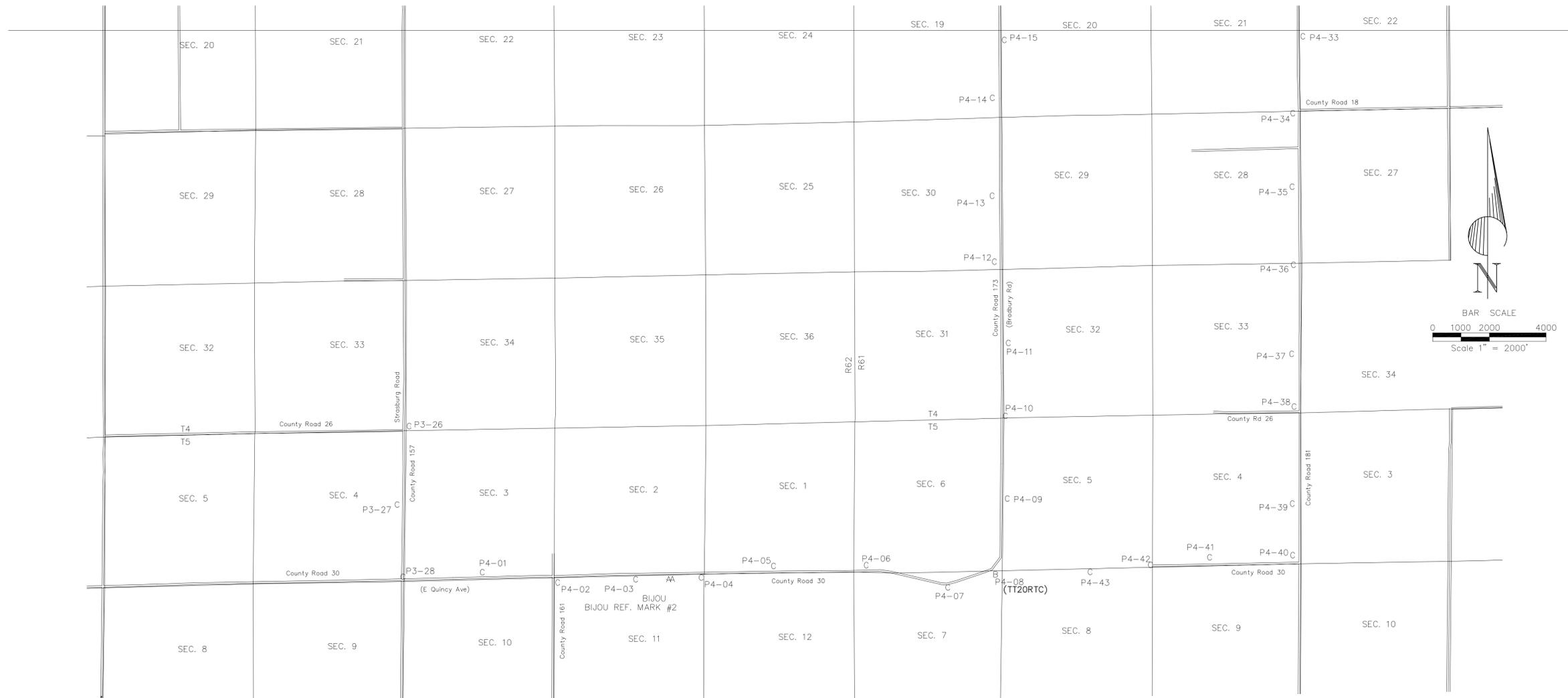
8751 E. HAMPDEN AVE. SUITE B-1
DENVER, COLORADO 80231
(303) 306-1858

**ARAPAHOE COUNTY
VERTICAL CONTROL
PHASE 4**

DATE: 2003	DRAWN: KCH, SC	FILE NAME: 03044.DWG	
SCALE: AS SHOWN	CHECKED: MDH	LAST REVISION:	
PROJECT NO. 03044	SHEET NO. 2	OF 3	

FILE LOCATION: P:\PROJECTS\03044\03044.DWG
 DATE: 12-29-03 DRAWN BY: KCH, SC JOB NO.: 03044
 PLOT SCALE: 1"=1'

ARAPAHOE COUNTY VERTICAL CONTROL PHASE 4



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NO.	DATE	DESCRIPTION



**MOUNTAIN SURVEYING &
MAPPING, INC.**
8751 E. HAMPDEN AVE. SUITE B-1
DENVER, COLORADO 80231
(303) 306-1858

ARAPAHOE COUNTY
VERTICAL CONTROL
PHASE 4

DATE: 2003	DRAWN: KCH, SC	FILE NAME: 03044.DWG
SCALE: AS SHOWN	CHECKED: MDH	LAST REVISION:
PROJECT NO. 03044	SHEET NO. 3	OF 3