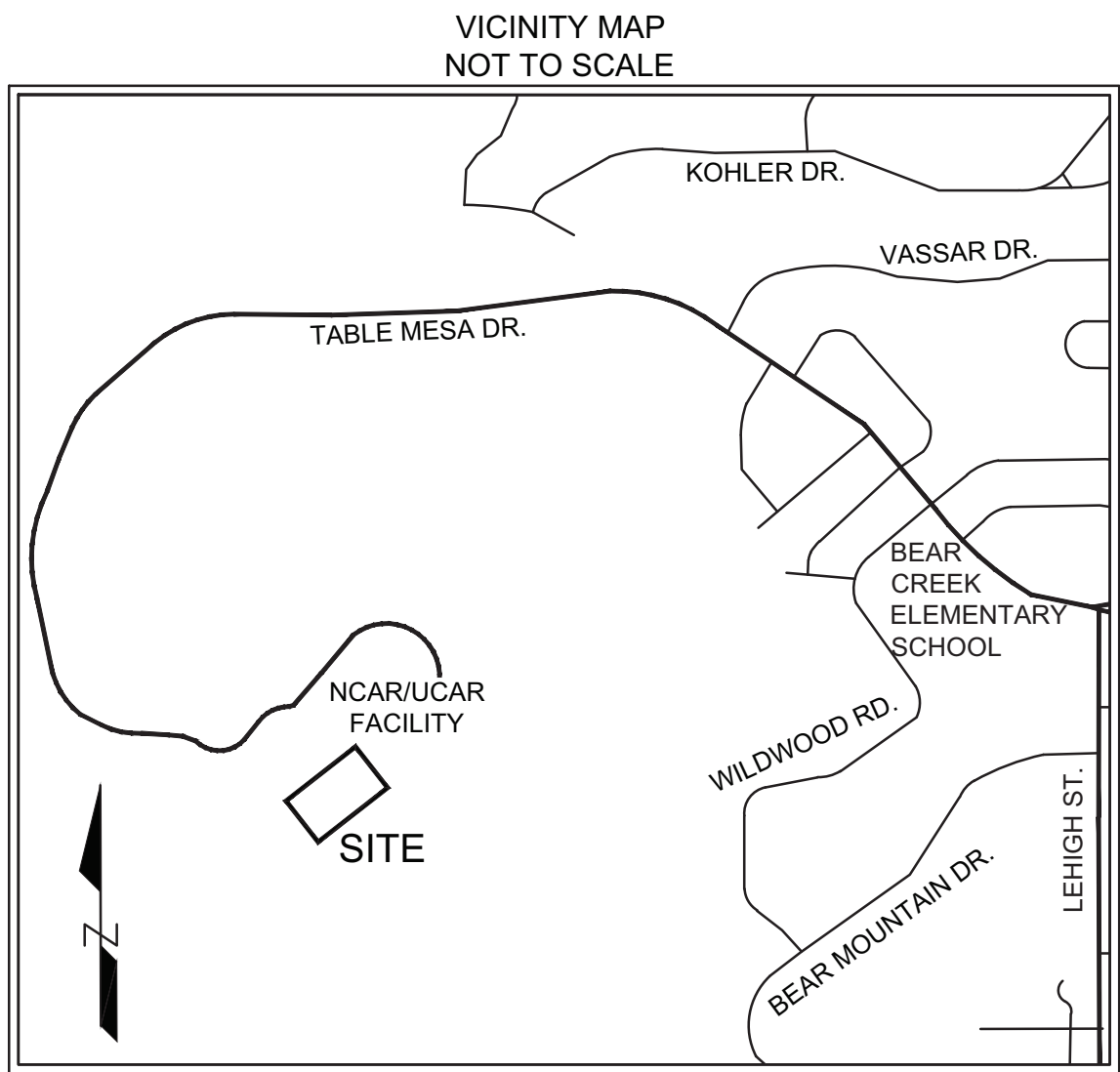


LEGEND

- ESTABLISHED CONTROL POINT
- BOREHOLE
- SPRINKLER
- EVERGREEN TREE WITH CALIPER
- DEAD EVERGREEN TREE
- CHAIN LINK FENCE LINE
- ELECTRICAL LINE
- BUILDING
- DIRT OR GRAVEL
- CONCRETE
- FINISH FLOOR ELEVATION
- A 3/8" REBAR WITH A 1" ORANGE PLASTIC CAP STAMPED "BLC INC CONTROL POINT"
- BLCSP



NOTES:

1. THIS MAP DOES NOT REPRESENT A BOUNDARY SURVEY OR TITLE SEARCH PERFORMED BY BOULDER LAND CONSULTANTS, INC OR THE UNDERSIGNED. THERE MAY EXIST EASEMENTS AND/OR OTHER ENCUMBRANCES AFFECTING THE SUBJECT PROPERTY THAT ARE NOT SHOWN HEREON.

2. LOCATION FOR THE INFORMATION SHOWN HEREON IS BASED ON MODIFIED STATE PLANE COORDINATES, COLORADO NORTH ZONE 501, NAD 83 (NSRS 2011). ALL DIMENSIONS ARE IN U.S. SURVEY FEET (AT GROUND). COORDINATES WERE BROUGHT TO GROUND HOLDING THE ACTUAL STATE PLANE COORDINATES DETERMINED AT CP-101 (AN ESTABLISHED CONTROL POINT: A 3/8" REBAR WITH A 1" ORANGE PLASTIC CAP "BLC INC. CONTROL POINT"), COMBINED SCALE FACTOR AT SAID POINT CP-101 IS 0.9996788903 (INVERSE COMBINED SCALE FACTOR OF: 1.0003212051. INFORMATION SHOWN ABOVE WAS DETERMINED VIA GPS OBSERVATIONS.

3. PROJECT BENCHMARK FOR VERTICAL INFORMATION SHOWN HEREON IS AN NGS MONUMENT "WARE GPS", PID LL1093, LOCATED NEAR MARINE STREET AND 30TH STREET, NAVD88 ELEVATION: 5264.69 FEET. ONSITE LOCAL BENCHMARKS ARE DESCRIBED AS "CP-100", "CP-101", "CP-102", "CP-103" AND "CP-104" (NOT SHOWN BUT PROVIDED IN CAD FILE) AS SHOWN HEREON. CONTOUR INTERVAL IS 1 FOOT. ELEVATIONS SHOWN WERE GPS DERIVED.

4. THE LOCATIONS OF UNDERGROUND UTILITIES WERE BASED UPON VISIBLE SURFACE EVIDENCE, PAINTED SURFACE MARKINGS DELINEATED BY UNDERGROUND CONSULTING SOLUTIONS, INC. (MARKED NOVEMBER 4, 2019) AND MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANIES AND THE CITY OF BOULDER. AS STATED IN TABLE A, ITEM 11 OF THE 2016 ALTA/NSPS MINIMUM STANDARD DETAIL REQUIREMENTS "LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND (UTILITY) FEATURES CANNOT BE ACCURATELY, COMPLETELY OR RELIABLY DEPICTED".

INVERT ELEVATIONS ON STORM OUTLETS ARE THE BEST ESTIMATED ARE ROUNDED TO THE NEAREST 0.1 FEET.

SEE NOTE 8 AND NOTE 9 FOR MORE DETAILS ON SELECT UTILITIES.

5. DATE OF FIELDWORK: NOVEMBER 2019

6. TREES OF 12" THAT GREATER HAVE BEEN LOCATED. SELECT BOULDERS ARE SHOWN. ON THE HILLSIDE, NUMEROUS BOULDERS EXIST THAT ARE NOT DEPICTED HEREON.

7. FEMA INFORMATION: THE TOPOGRAPHIC AREA SHOWN HEREON IS LOCATED IN ZONE X ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 08013C0557J, DATED DECEMBER 18, 2012. FLOOD INFORMATION IS SUBJECT TO CHANGE AND IS APPROXIMATED HEREON. ZONE X AREAS DETERMINED TO BE LOCATED OUTSIDE THE 0.2% FLOOD ZONE.

8. THE UNDERGROUND VACUUM TUNNEL SHOWN HEREON IS BASED ON ONE CORNER OF THE EXPOSED TUNNEL (SOUTHERNMOST CORNER AS SHOWN HEREON) AND TWO MARKS ON THE NORTHERLY FACE OF THE CONCRETE WALL REPRESENTING THE NORTHERLY END OF THE VACUUM TUNNEL: A BOLT AND A CUT LINE PER FACILITIES STAFF. THESE PHYSICAL MARKINGS ARE CONSISTENT WITH PLANS OBTAINED AND REVIEWED (PLANS LABELED AS NATIONAL CENTER FOR ATMOSPHERIC RESEARCH, SITE: MESA LAB, DRAWING TITLE, HAO ADDITION, FLOOR PLAN, DATE: JUNE 3, 1980, SHEET 2 OF 10).

ACCORDING TO UCAR FACILITIES STAFF, THIS VACUUM TUNNEL CONTAINS ALL THE UTILITIES SUPPORTING THIS ACCESSORY BUILDING.

9. PER UCAR FACILITIES STAFF, THE STORM OUTLETS SHOWN ON THE HILLSIDE ARE CONNECTED TO ADJACENT BUILDING(S). THE DRAINAGE PLANS REVIEWED BY BOULDER LAND CONSULTANTS, INC. DID NOT APPEAR TO BE CONSISTENT WITH THE FOUND STORM OUTLETS.

10. CERTIFICATION DEFINED: THE USE OF THE WORDS "CERTIFY" OR "CERTIFICATION" BY A REGISTERED PROFESSIONAL LAND SURVEYOR CONSTITUTES AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THE FACTS AND FINDINGS WHICH ARE THE SUBJECT OF THE CERTIFICATION, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTY, EITHER EXPRESSED OR IMPLIED. THE CERTIFICATION SHOWN HEREON EXTENDS ONLY TO THOSE PARTIES SPECIFICALLY MENTIONED THEREIN (PER COLORADO STATE BOARD RULE 6.2.2).

11. IN ACCORDANCE WITH C.R.S. 13-80-105:
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 CERTIFICATION:

I, KAYCE D. W. KEANE, HEREBY CERTIFY TO UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH (UCAR) THAT, SUBJECT TO THE NOTES SHOWN HEREON, THIS TOPOGRAPHIC MAP WAS BASED ON A FIELD SURVEY PERFORMED IN NOVEMBER 2019, UNDER MY DIRECT SUPERVISION, AND THAT THIS TOPOGRAPHIC MAP ACCURATELY DEPICTS THE RESULTS OF SAID SURVEY, AND THAT THIS MAP DOES NOT REPRESENT A LAND SURVEY PLAT OR BOUNDARY SURVEY OF THE SUBJECT PROPERTY.

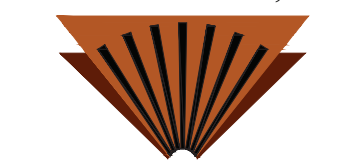
KAYCE D. W. KEANE
COLORADO REGISTERED PROFESSIONAL
LAND SURVEYOR NO. 38197
DATE: NOVEMBER 22, 2019



A TOPOGRAPHIC MAP OF THE
NCAR/UCAR VACUUM TUNNEL PROJECT AREA
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 7,
TOWNSHIP 1 SOUTH, RANGE 70 WEST OF THE 6TH P.M.,
CITY OF BOULDER, COUNTY OF BOULDER, STATE OF COLORADO

THIS MAP WAS PREPARED BY:

**BOULDER LAND
CONSULTANTS, INC.**



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Website: BLCSurveyors.com

TOPO: NCAR/UCAR FACILITY
BOULDER COUNTY, COLORADO
DATE: NOVEMBER 22, 2019