

Second Regular Session
Seventy-fourth General Assembly
STATE OF COLORADO

INTRODUCED

LLS NO. 24-0281.01 Richard Sweetman x4333

HOUSE BILL 24-1307

HOUSE SPONSORSHIP

Lieder and Hamrick,

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Marchman,

House Committees
Education

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A BILL FOR AN ACT

101 CONCERNING HVAC INFRASTRUCTURE IMPROVEMENT PROJECTS IN
102 SCHOOLS.

Bill Summary

(Note: This summary applies to this bill as introduced and does not reflect any amendments that may be subsequently adopted. If this bill passes third reading in the house of introduction, a bill summary that applies to the reengrossed version of this bill will be available at <http://leg.colorado.gov>.)

The bill requires a school district board of education, a charter school, an institute charter school, a board of cooperative services, or the Colorado school for the deaf and the blind (school administrative entity) to satisfy certain requirements concerning installation, inspection, and maintenance of heating, ventilation, and air conditioning (HVAC) systems in schools if the school administrative entity undertakes HVAC

Shading denotes HOUSE amendment. Double underlining denotes SENATE amendment.
Capital letters or bold & italic numbers indicate new material to be added to existing law.
Dashes through the words or numbers indicate deletions from existing law.

infrastructure improvements using money made available by a federal government source or by a federal government source in combination with a state government source specifically for such purpose.

The requirements established in the bill concern:

- Ventilation verification assessments, which include assessments of an HVAC system's filtration, ventilation exhaust, economizers, demand control ventilation, air distribution and building pressurization, general maintenance requirements, operational controls, and carbon dioxide output;
- The preparation of HVAC assessment reports;
- The review of HVAC assessment reports by mechanical engineers, who make recommendations regarding necessary repairs and improvements and estimate associated costs;
- HVAC adjustments, repairs, upgrades, and replacements;
- The preparation of HVAC verification reports and the submission of the reports to the state board of education; and
- Periodic inspections and ongoing maintenance.

The bill establishes mandatory criteria that an HVAC contractor must satisfy in order to perform work described in the bill. A school administrative entity that undertakes HVAC infrastructure improvements using money made available by a federal government source or by a federal government source in combination with a state government source must do so using only contractors on the certified contractor list established by the department of labor and employment.

The bill allows a school administrative entity to apply for grants to pay for HVAC infrastructure improvement projects and establishes requirements for school administrative entities that apply for grants from federal and state government sources.

The bill allows the governor's office to expend money from the "Infrastructure Investment and Jobs Act" cash fund to provide grant writing support and project planning support to school administrative entities that are undertaking HVAC infrastructure improvement projects.

1 *Be it enacted by the General Assembly of the State of Colorado:*

2 **SECTION 1. Legislative declaration.** (1) The general assembly
3 finds that:

4 (a) Students and staff in Colorado's public schools deserve access
5 to clean, healthy air along with proper heating and cooling to improve

1 their opportunities to learn;

2 (b) Indoor air quality is one of several toxic threats to students in
3 schools;

4 (c) The condition of inadequate school facilities can expose
5 students and staff to mold and legacy toxins such as lead, asbestos, and
6 industrial products and chemicals known as PCBs; poor air quality and
7 temperature control; inadequate lighting; and excessive noise; and

8 (d) Improving the air quality in schools can result in higher
9 attendance, better cognitive function, less asthma and other respiratory
10 health problems, and improved academic performance.

11 (2) The general assembly further finds that:

12 (a) In Colorado, many of the conditions that cause unhealthy
13 indoor air and environmental quality impact Colorado school buildings;

14 (b) Various Colorado schools have been featured in news stories
15 profiling funding shortages, heating and cooling issues, and the need for
16 facility improvements;

17 (c) The department of education's own Facility Insight Dashboard
18 reports the average age of school infrastructure to be forty years; and

19 (d) State school buildings receive a poor score on the department
20 of education's Facility Condition Index.

21 (3) The general assembly further finds that:

22 (a) Despite efforts by state agencies and school districts to
23 improve indoor environmental quality in classrooms and other school
24 buildings, many of Colorado's school districts lack the funding and staff
25 to improve facility conditions and thereby improve school health
26 outcomes;

27 (b) According to the American Society of Civil Engineers' 2020

1 infrastructure report card, Colorado schools have an approximately \$14
2 billion funding gap between the need for infrastructure replacements,
3 repairs, or upgrades and money available from regular funding and budget
4 processes;

5 (c) The current funding sources for schools do not equitably
6 distribute funds, leaving many schools in rural and disproportionately
7 impacted communities unable to pay for necessary retrofits and updates;

8 (d) The passage of the federal "Inflation Reduction Act of 2022"
9 and "Bipartisan Infrastructure Law", which was enacted in the federal
10 "Infrastructure Investment and Jobs Act", have made billions of dollars
11 in federal money available to combine with current and planned state or
12 local funding that can help public schools improve air quality, improve
13 student performance and staff retention, and realize significant energy
14 savings for school districts;

15 (e) Accessing this federal money would not only improve air
16 quality in schools but also bring billions of dollars in economic
17 investments in quality projects to Colorado communities and workers;
18 and

19 (f) Unfortunately, many of the schools with the most pressing
20 infrastructure improvement needs lack the staff capacity to track, apply
21 for, and manage grant funding available at the state and federal level.

22 (4) Therefore, the general assembly declares that, in order to help
23 schools address health concerns and energy efficiency needs, this act:

24 (a) Makes school administrative entities eligible to receive grants
25 from the "Infrastructure Investment and Jobs Act" cash fund created in
26 Senate Bill 22-215, which was enacted in 2022;

27 (b) Authorizes the governor's office to coordinate with outside

1 entities to provide school administrative entities with project planning,
2 grant writing, and other technical assistance, such as school ventilation
3 and energy efficiency verification, as needed;

4 (c) Ensures that school districts' federal funding applications
5 remain competitive by requiring the use of certified contractors to
6 complete HVAC infrastructure improvement projects receiving federal
7 funding and requiring compliance with the labor standards outlined in
8 federal funding opportunities; and

9 (d) Will save schools money by ensuring that facility improvement
10 projects are completed by a highly skilled workforce and result in
11 measurable energy efficiency improvements and health improvements for
12 students and staff.

13 **SECTION 2.** In Colorado Revised Statutes, **add** 22-32-152 as
14 follows:

15 **22-32-152. School ventilation and energy efficiency**
16 **verification and repair - definitions - applicability of section -**
17 **ventilation verification assessment - filtration - HVAC assessment**
18 **report - mechanical engineer review - adjustments, repairs, upgrades,**
19 **and replacements - HVAC verification report - periodic inspections**
20 **and ongoing maintenance - certified contractors - grants.**

21 (1) **Definitions.** AS USED IN THIS SECTION, UNLESS THE CONTEXT
22 OTHERWISE REQUIRES:

23 (a) "ANAB" MEANS THE AMERICAN NATIONAL STANDARDS
24 INSTITUTE NATIONAL ACCREDITATION BOARD.

25 (b) "ASHRAE" MEANS THE AMERICAN SOCIETY OF HEATING,
26 REFRIGERATION AND AIR-CONDITIONING ENGINEERS.

27 (c) "CERTIFIED CONTRACTOR" MEANS A CONTRACTOR ON THE

1 CERTIFIED CONTRACTOR LIST.

2 (d) "CERTIFIED CONTRACTOR LIST" MEANS THE CERTIFIED
3 CONTRACTOR LIST CREATED BY THE DEPARTMENT OF LABOR AND
4 EMPLOYMENT PURSUANT TO SECTION 40-3.2-105.6 (3)(a).

5 (e) "CERTIFIED TAB TECHNICIAN" MEANS A TECHNICIAN
6 CERTIFIED TO PERFORM TESTING, ADJUSTING, AND BALANCING OF HVAC
7 SYSTEMS BY:

8 (I) THE ASSOCIATED AIR BALANCE COUNCIL;

9 (II) THE NATIONAL ENVIRONMENTAL BALANCING BUREAU;

10 (III) THE TESTING, ADJUSTING AND BALANCING BUREAU; OR

11 (IV) A SUCCESSOR ORGANIZATION OF AN ORGANIZATION NAMED
12 IN SUBSECTION (1)(e)(I), (1)(e)(II), OR (1)(e)(III) OF THIS SECTION.

13 (f) "CO2" MEANS CARBON DIOXIDE.

14 (g) "DEPARTMENT" MEANS THE DEPARTMENT OF EDUCATION
15 CREATED IN SECTION 24-1-115.

16 (h) "HVAC" MEANS HEATING, VENTILATION, AND AIR
17 CONDITIONING.

18 (i) "HVAC ASSESSMENT REPORT" MEANS THE HVAC ASSESSMENT
19 REPORT DESCRIBED IN SUBSECTION (4) OF THIS SECTION.

20 (j) "ISO/IEC 17024 PERSONNEL CERTIFICATION STANDARD"
21 MEANS THE ISO/IEC 17024 PERSONNEL CERTIFICATION ACCREDITATION
22 STANDARD DEVELOPED BY THE INTERNATIONAL ORGANIZATION FOR
23 STANDARDIZATION AND THE INTERNATIONAL ELECTROTECHNICAL
24 COMMISSION FOR THE PURPOSE OF CERTIFYING PERSONNEL.

25 (k) "MECHANICAL ENGINEER" MEANS A PROFESSIONAL ENGINEER
26 WHO IS LICENSED PURSUANT TO PART 2 OF ARTICLE 120 OF TITLE 12 AND
27 HAS PROFESSIONAL EXPERIENCE WITH HVAC SYSTEMS.

1 (l) "MERV" MEANS MINIMUM EFFICIENCY REPORTING VALUE, AS
2 ESTABLISHED BY ANAB/ASHRAE STANDARD 52.2-2017, "METHOD OF
3 TESTING GENERAL VENTILATION AIR-CLEANING DEVICES FOR REMOVAL
4 EFFICIENCY BY PARTICLE SIZE".

5 (m) "OCCUPIED AREAS" MEANS THE CLASSROOMS, AUDITORIUMS,
6 GYMNASIUMS, NURSES' OFFICES, RESTROOMS, AND OFFICES OF A SCHOOL.

7 (n) "PPM" MEANS PARTS PER MILLION.

8 (o) "PROJECT LABOR AGREEMENT" HAS THE MEANING SET FORTH
9 IN 48 CFR 52.222-34.

10 (p) "QUALIFIED ADJUSTING PERSONNEL" MEANS:

11 (I) A CERTIFIED TAB TECHNICIAN; OR

12 (II) A WORKER WHO IS UNDER THE DIRECT SUPERVISION OF A
13 CERTIFIED TAB TECHNICIAN.

14 (q) "QUALIFIED PERSONNEL" MEANS QUALIFIED TESTING
15 PERSONNEL, QUALIFIED ADJUSTING PERSONNEL, OR OTHER WORKFORCE
16 THAT IS HIRED BY AND UNDER THE DIRECT SUPERVISION OF A CERTIFIED
17 CONTRACTOR FOR THE PURPOSE OF PERFORMING HVAC WORK.

18 (r) "QUALIFIED TESTING PERSONNEL" MEANS:

19 (I) A CERTIFIED TAB TECHNICIAN; OR

20 (II) AN INDIVIDUAL CERTIFIED TO PERFORM VENTILATION
21 ASSESSMENTS OF HVAC SYSTEMS BY THE INTERNATIONAL CERTIFICATION
22 BOARD OR THROUGH AN EQUIVALENT CERTIFICATION PROGRAM OR BODY
23 ACCREDITED UNDER THE ISO/IEC 17024 PERSONNEL CERTIFICATION
24 STANDARD.

25 (s) "REGISTERED APPRENTICESHIP PROGRAM" HAS THE MEANING
26 SET FORTH IN SECTION 8-15.7-101 (13).

27 (t) "SCHOOL" MEANS AN EDUCATIONAL FACILITY OPERATED BY A

1 SCHOOL ADMINISTRATIVE ENTITY.

2 (u) "SCHOOL ADMINISTRATIVE ENTITY" MEANS:

3 (I) A SCHOOL DISTRICT BOARD OF EDUCATION;

4 (II) A CHARTER SCHOOL, AS DEFINED IN SECTION 22-30.5-103 (2);

5 (III) AN INSTITUTE CHARTER SCHOOL, AS DEFINED IN SECTION
6 22-30.5-502 (6);

7 (IV) A BOARD OF COOPERATIVE SERVICES, AS DEFINED IN SECTION
8 22-5-103 (2); OR

9 (V) THE COLORADO SCHOOL FOR THE DEAF AND THE BLIND
10 CREATED IN SECTION 22-80-102.

11 (v) "STATE BOARD" MEANS THE STATE BOARD OF EDUCATION
12 CREATED AND EXISTING PURSUANT TO SECTION 1 OF ARTICLE IX OF THE
13 STATE CONSTITUTION.

14 (w) "TAB" MEANS TESTING, ADJUSTING, AND BALANCING OF AN
15 HVAC SYSTEM.

16 (2) **Applicability of section.** (a) ON AND AFTER THE EFFECTIVE
17 DATE OF THIS SECTION, IF A SCHOOL ADMINISTRATIVE ENTITY
18 UNDERTAKES HVAC INFRASTRUCTURE IMPROVEMENTS AT A SCHOOL
19 USING MONEY MADE AVAILABLE BY A FEDERAL GOVERNMENT SOURCE OR
20 BY A FEDERAL GOVERNMENT SOURCE IN COMBINATION WITH A STATE
21 GOVERNMENT SOURCE SPECIFICALLY FOR SUCH PURPOSE, THE SCHOOL
22 ADMINISTRATIVE ENTITY SHALL COMPLY WITH THE PROCEDURES SET
23 FORTH IN THIS SECTION IN IMPLEMENTING THE HVAC INFRASTRUCTURE
24 IMPROVEMENTS.

25 (b) NOTWITHSTANDING ANY PROVISION OF THIS SECTION TO THE
26 CONTRARY, A SCHOOL ADMINISTRATIVE ENTITY IS NOT REQUIRED TO
27 SATISFY THE REQUIREMENTS OF THIS SECTION UNLESS THE SCHOOL

1 ADMINISTRATIVE ENTITY RECEIVES MONEY FROM A FEDERAL
2 GOVERNMENT SOURCE OR FROM A FEDERAL GOVERNMENT SOURCE IN
3 COMBINATION WITH A STATE GOVERNMENT SOURCE, WHICH MONEY IS
4 MADE AVAILABLE FOR THE SPECIFIC PURPOSE OF IMPLEMENTING HVAC
5 SYSTEM IMPROVEMENTS.

6 (3) **Ventilation verification assessment.** QUALIFIED PERSONNEL
7 SHALL PERFORM ALL OF THE FOLLOWING:

8 (a) **Filtration.** MERV 13 OR BETTER FILTRATION MUST BE
9 INSTALLED IN A SCHOOL'S HVAC SYSTEM WHERE FEASIBLE. QUALIFIED
10 PERSONNEL SHALL:

11 (I) REVIEW SYSTEM CAPACITY AND AIRFLOW TO DETERMINE THE
12 HIGHEST MERV FILTRATION THAT CAN BE INSTALLED WITHOUT
13 ADVERSELY IMPACTING EQUIPMENT;

14 (II) REPLACE OR UPGRADE FILTERS WHERE NEEDED AND VERIFY
15 THAT FILTERS ARE INSTALLED CORRECTLY; AND

16 (III) ISSUE RECOMMENDATIONS FOR ADDITIONAL MAINTENANCE,
17 FREQUENCY OF FILTER REPLACEMENTS, OR UPGRADES TO ALLOW FOR
18 MORE PROTECTIVE FILTRATION AND RECORD THE RECOMMENDATIONS IN
19 THE HVAC ASSESSMENT REPORT.

20 (b) **Ventilation and exhaust.** AFTER ASSESSING THE FILTRATION
21 AS DESCRIBED IN SUBSECTION (3)(a) OF THIS SECTION, QUALIFIED
22 PERSONNEL SHALL ASSESS THE VENTILATION RATES IN THE SCHOOL'S
23 OCCUPIED AREAS TO DETERMINE WHETHER THEY MEET THE MINIMUM
24 VENTILATION RATE REQUIREMENTS SET FORTH IN THE INTERNATIONAL
25 MECHANICAL CODE. ASSESSMENT OF THE VENTILATION AND EXHAUST
26 MUST INCLUDE ALL THE FOLLOWING:

27 (I) CALCULATION OF THE ESTIMATED MINIMUM OUTSIDE AIR

1 VENTILATION RATES FOR EACH OCCUPIED AREA BASED ON THE MAXIMUM
2 ANTICIPATED OCCUPANCY AND THE MINIMUM REQUIRED VENTILATION
3 RATE PER OCCUPANT. CALCULATIONS MUST BE BASED ON MAXIMUM
4 ANTICIPATED CLASSROOM OR OTHER OCCUPIED AREA OCCUPANCY RATES
5 AND DETERMINED BY THE INTERNATIONAL MECHANICAL CODE;

6 (II) MEASUREMENT OF OUTSIDE AIR AND VERIFICATION THAT THE
7 SYSTEM PROVIDES THE MINIMUM OUTSIDE AIR VENTILATION RATES
8 CALCULATED PURSUANT TO SUBSECTION (3)(b)(I) OF THIS SECTION;

9 (III) VERIFICATION OF COIL VELOCITIES AND UNIT DISCHARGE AIR
10 TEMPERATURES REQUIRED TO MAINTAIN DESIRED INDOOR CONDITIONS
11 AND TO AVOID MOISTURE CARRYOVER FROM COOLING COILS;

12 (IV) VERIFICATION THAT SEPARATION BETWEEN OUTDOOR AIR
13 INTAKES AND EXHAUST DISCHARGE OUTLETS MEETS THE REQUIREMENTS
14 OF THE INTERNATIONAL MECHANICAL CODE;

15 (V) CONFIRMATION THAT THE AIR HANDLING UNIT IS BRINGING IN
16 OUTDOOR AIR AND REMOVING EXHAUST AIR AS INTENDED BY THE SYSTEM
17 DESIGN; AND

18 (VI) MEASUREMENT OF ALL EXHAUST AIR VOLUME FOR EXHAUST
19 FANS, SUCH AS RESTROOM EXHAUST FANS, INCLUDING DOCUMENTATION
20 OF ANY DISCREPANCIES FROM SYSTEM DESIGN.

21 (c) **Economizers.** FOR HVAC SYSTEMS WITH ECONOMIZERS,
22 QUALIFIED PERSONNEL SHALL TEST SYSTEM ECONOMIZER DAMPERS FOR
23 PROPER OPERATION. ECONOMIZER DAMPERS AND CONTROLS THAT ARE
24 NOT PROPERLY FUNCTIONING SHALL BE REPAIRED BY A CERTIFIED
25 CONTRACTOR AND THE CERTIFIED CONTRACTOR'S QUALIFIED PERSONNEL.
26 QUALIFIED PERSONNEL SHALL RECORD RECOMMENDATIONS FOR
27 ADDITIONAL MAINTENANCE, REPLACEMENT, OR UPGRADES IN THE HVAC

1 ASSESSMENT REPORT.

2 (d) **Demand control ventilation.** (I) IF DEMAND CONTROL
3 VENTILATION SYSTEMS ARE INSTALLED, QUALIFIED PERSONNEL SHALL
4 VERIFY THEIR PROPER OPERATION.

5 (II) DEMAND CONTROL VENTILATION SYSTEMS THAT ARE NOT
6 PROPERLY FUNCTIONING SHALL BE REPAIRED BY A CERTIFIED CONTRACTOR
7 AND THE CERTIFIED CONTRACTOR'S QUALIFIED PERSONNEL.

8 (III) IF A DEMAND CONTROL VENTILATION SYSTEM IS
9 RECOMMENDED TO BE DISABLED OR IS UNABLE TO PROVIDE
10 RECOMMENDED VENTILATION RATES, THE HVAC SYSTEM MUST BE
11 CONFIGURED TO MEET THE MINIMUM VENTILATION RATE REQUIREMENTS
12 WITHOUT USE OF THE DEMAND CONTROL VENTILATION SYSTEM AND
13 TESTED AND ADJUSTED TO ACHIEVE THE ESTIMATED MINIMUM OUTSIDE
14 AIR VENTILATION RATE, AS DESCRIBED IN SUBSECTION (3)(b)(I) OF THIS
15 SECTION.

16 (IV) QUALIFIED PERSONNEL SHALL RECORD RECOMMENDATIONS
17 FOR ADDITIONAL MAINTENANCE, REPLACEMENT, OR UPGRADES IN THE
18 HVAC ASSESSMENT REPORT.

19 (e) **Air distribution and building pressurization.** (I) QUALIFIED
20 PERSONNEL SHALL:

21 (A) PERFORM SURVEY READINGS OF INLETS AND OUTLETS TO
22 VERIFY THAT ALL VENTILATION IS REACHING THE SERVED ZONES AND
23 THAT THERE IS ADEQUATE AIR DISTRIBUTION;

24 (B) VERIFY THAT INLETS AND OUTLETS ARE BALANCED WITHIN
25 TOLERANCE OF THE SYSTEM DESIGN; AND

26 (C) DOCUMENT READ VALUES AND DEFICIENCIES. IF THE ORIGINAL
27 SYSTEM DESIGN VALUES ARE NOT AVAILABLE, QUALIFIED PERSONNEL

1 SHALL DOCUMENT AVAILABLE INFORMATION AND NOTE THE
2 UNAVAILABILITY OF SYSTEM DESIGN VALUES IN THE HVAC ASSESSMENT
3 REPORT.

4 (II) QUALIFIED PERSONNEL SHALL VERIFY BUILDING AND SPACE
5 PRESSURE TO ENSURE THAT:

6 (A) THE PRESSURE DIFFERENTIAL IS WITHIN TOLERANCE OF
7 DESIGN, IF KNOWN;

8 (B) THE SCHOOL BUILDING IS NOT OVER PRESSURIZED; AND

9 (C) IF APPLICABLE, ROOMS DESIGNATED FOR TEMPORARY
10 OCCUPATION BY SICK STUDENTS OR STAFF MAINTAIN A NEGATIVE
11 PRESSURE, OR AS OTHERWISE DESIGNED.

12 (f) **General maintenance.** QUALIFIED PERSONNEL SHALL VERIFY
13 COIL CONDITION, CONDENSATE DRAINAGE, COOLING COIL AIR
14 TEMPERATURE DIFFERENTIAL (ENTERING AND LEAVING DRY BULB), HEAT
15 EXCHANGER AIR TEMPERATURE DIFFERENTIAL (ENTERING AND LEAVING
16 DRY BULB), AND DRIVE ASSEMBLY CONDITION. QUALIFIED PERSONNEL
17 SHALL RECORD RECOMMENDATIONS FOR ADDITIONAL MAINTENANCE,
18 REPLACEMENT, OR UPGRADES IN THE HVAC ASSESSMENT REPORT.

19 (g) **Operational controls.** QUALIFIED PERSONNEL SHALL REVIEW
20 CONTROL SEQUENCES TO VERIFY THAT SYSTEMS WILL MAINTAIN INTENDED
21 VENTILATION, TEMPERATURE, AND HUMIDITY CONDITIONS DURING SCHOOL
22 OPERATION.

23 (h) **CO2 monitoring.** (I) AS AN INDICATOR OF PROPER
24 VENTILATION THROUGHOUT THE SCHOOL YEAR, ALL CLASSROOMS MUST
25 BE EQUIPPED WITH A CO2 MONITOR THAT:

26 (A) IS HARDWIRED, PLUG-IN, OR BATTERY OPERATED AND
27 MOUNTED TO THE WALL AT LEAST THREE FEET BUT LESS THAN SIX FEET

1 ABOVE THE FLOOR AND AT LEAST FIVE FEET AWAY FROM THE DOOR AND
2 ANY OPERABLE WINDOWS;

3 (B) DISPLAYS THE CO₂ READINGS TO THE SCHOOL FACILITIES
4 MANAGER OR DESIGNATED STAFF MEMBER THROUGH A DISPLAY ON THE
5 DEVICE OR OTHER MEANS, SUCH AS A WEB-BASED APPLICATION OR CELL
6 PHONE APPLICATION;

7 (C) NOTIFIES THE SCHOOL FACILITIES MANAGER OR DESIGNATED
8 STAFF MEMBER THROUGH A VISUAL INDICATOR OR OTHER ALERT, SUCH AS
9 AN E-MAIL, A TEXT, OR A CELL PHONE APPLICATION, WHEN CO₂ LEVELS IN
10 THE CLASSROOM HAVE EXCEEDED ONE THOUSAND ONE HUNDRED PPM;

11 (D) MAINTAINS A RECORD OF PREVIOUS DATA, WHICH RECORD
12 INCLUDES AT LEAST THE MAXIMUM CO₂ CONCENTRATION MEASURED;

13 (E) HAS A MEASUREMENT RANGE OF AT LEAST FOUR HUNDRED TO
14 FIVE THOUSAND PPM; AND

15 (F) IS CERTIFIED BY THE MANUFACTURER TO BE ACCURATE WITHIN
16 SEVENTY-FIVE PPM AT ONE THOUSAND PPM CO₂ CONCENTRATION AND TO
17 REQUIRE CALIBRATION NO MORE FREQUENTLY THAN ONCE EVERY FIVE
18 YEARS.

19 (II) QUALIFIED PERSONNEL SHALL VERIFY THAT THE CO₂
20 MONITORS ARE ACCURATE WITHIN SEVENTY-FIVE PPM AT ONE THOUSAND
21 PPM CO₂.

22 (III) IN SCHOOLS WHERE THERE IS LIMITED OR NO EXISTING
23 MECHANICAL VENTILATION, THE ASSESSMENT OF CO₂ MONITORING MUST
24 FOCUS ON DOCUMENTING EXISTING CONDITIONS AND PROVIDING THE
25 MECHANICAL ENGINEER WITH THE INFORMATION NEEDED TO PROVIDE
26 MECHANICAL VENTILATION UPGRADE RECOMMENDATIONS, IF NEEDED, TO
27 ENSURE PROPER VENTILATION AND INDOOR AIR QUALITY. CLASSROOMS

1 WITH LIMITED OR NO EXISTING MECHANICAL VENTILATION MUST HAVE
2 CO2 MONITORS INSTALLED.

3 (IV) IN THE HVAC ASSESSMENT REPORT, QUALIFIED PERSONNEL
4 SHALL INCLUDE VERIFICATION OF THE INSTALLATION OF CO2 MONITORS
5 IN ALL CLASSROOMS.

6 (4) **HVAC assessment report.** QUALIFIED PERSONNEL SHALL
7 PREPARE AN HVAC ASSESSMENT REPORT FOR REVIEW BY A MECHANICAL
8 ENGINEER. THE HVAC ASSESSMENT REPORT MUST INCLUDE ALL OF THE
9 FOLLOWING INFORMATION:

10 (a) THE NAME AND ADDRESS OF THE SCHOOL AND THE CERTIFIED
11 CONTRACTOR COMPLETING THE WORK, INCLUDING THE NAME OF THE
12 QUALIFIED PERSONNEL PREPARING THE ASSESSMENT REPORT AND THE
13 NAME OF THE MECHANICAL ENGINEER CERTIFYING THE ASSESSMENT
14 REPORT;

15 (b) A DESCRIPTION OF ASSESSMENT, MAINTENANCE, ADJUSTMENT,
16 AND REPAIR ACTIVITIES AND OUTCOMES;

17 (c) DOCUMENTATION OF HVAC EQUIPMENT MODEL NUMBERS,
18 SERIAL NUMBERS, GENERAL CONDITION OF UNITS, AND ANY ADDITIONAL
19 INFORMATION THAT COULD BE USED TO ASSESS REPLACEMENT AND REPAIR
20 OPTIONS GIVEN THE POTENTIAL FOR INCREASED ENERGY EFFICIENCY
21 BENEFITS;

22 (d) VERIFICATION THAT EITHER:

23 (I) MERV 13 FILTERS HAVE BEEN INSTALLED; OR

24 (II) THE MAXIMUM MERV-RATED FILTER THAT THE SYSTEM IS
25 ABLE TO EFFECTIVELY HANDLE HAS BEEN INSTALLED, INCLUDING AN
26 INDICATION OF THE MERV RATING OF THAT FILTER;

27 (e) VERIFICATION THAT ALL REQUIREMENTS DESCRIBED IN THIS

1 SUBSECTION (4) HAVE BEEN SATISFIED, INCLUDING INSTALLATION OF CO2
2 MONITORS IN ALL CLASSROOMS;

3 (f) THE VERIFIED VENTILATION RATES FOR OCCUPIED AREAS AND
4 WHETHER THOSE RATES MEET THE ESTIMATED REQUIREMENTS SET FORTH
5 IN THE INTERNATIONAL MECHANICAL CODE;

6 (g) THE VERIFIED EXHAUST FOR OCCUPIED AREAS AND WHETHER
7 THOSE RATES MEET THE REQUIREMENTS OF THE SYSTEM'S DESIGN; AND

8 (h) DOCUMENTATION OF SYSTEM DEFICIENCIES AND
9 RECOMMENDATIONS FOR ADDITIONAL MAINTENANCE, REPLACEMENT, OR
10 UPGRADES TO IMPROVE ENERGY EFFICIENCY, SAFETY, OR PERFORMANCE,
11 IF ANY.

12 (5) **Mechanical engineer review.** A MECHANICAL ENGINEER
13 SHALL:

14 (a) REVIEW THE HVAC ASSESSMENT REPORT;

15 (b) VERIFY OR ADJUST THE ESTIMATED MINIMUM OUTSIDE AIR
16 VENTILATION RATES;

17 (c) DETERMINE WHAT, IF ANY, ADDITIONAL ADJUSTMENTS,
18 REPAIRS, UPGRADES, OR REPLACEMENTS ARE NECESSARY TO MEET THE
19 MINIMUM VENTILATION AND FILTRATION REQUIREMENTS OF THE
20 INTERNATIONAL MECHANICAL CODE; AND

21 (d) PROVIDE A COST ESTIMATE FOR ALL RECOMMENDED WORK.

22 (6) **Adjustments, repairs, upgrades, and replacements.** ALL
23 HVAC REPAIRS, UPGRADES, AND REPLACEMENTS SHALL BE PERFORMED
24 BY A CERTIFIED CONTRACTOR AND THE CERTIFIED CONTRACTOR'S
25 QUALIFIED PERSONNEL. ALL HVAC ADJUSTMENTS SHALL BE PERFORMED
26 BY QUALIFIED ADJUSTING PERSONNEL.

27 (7) **HVAC verification report.** (a) THE CERTIFIED CONTRACTOR

1 OR A MEMBER OF THE CERTIFIED CONTRACTOR'S QUALIFIED PERSONNEL
2 SHALL PREPARE AN HVAC VERIFICATION REPORT, AND THE SCHOOL
3 ADMINISTRATIVE ENTITY SHALL SUBMIT THE HVAC VERIFICATION REPORT
4 TO THE STATE BOARD WITHIN THIRTY DAYS AFTER COMPLETION OF ALL
5 WORK DESCRIBED IN SUBSECTIONS (3) TO (6) OF THIS SECTION.

6 (b) THE HVAC VERIFICATION REPORT MUST INCLUDE ALL OF THE
7 FOLLOWING INFORMATION:

8 (I) THE NAME AND ADDRESS OF THE SCHOOL AND THE PERSON
9 PREPARING AND CERTIFYING THE REPORT;

10 (II) A DESCRIPTION OF ASSESSMENT, MAINTENANCE, ADJUSTMENT,
11 REPAIR, UPGRADE, AND REPLACEMENT ACTIVITIES AND OUTCOMES;

12 (III) VERIFICATION THAT THE CERTIFIED CONTRACTOR OR THE
13 CERTIFIED CONTRACTOR'S QUALIFIED PERSONNEL HAS COMPLIED WITH ALL
14 REQUIREMENTS OF THIS SECTION;

15 (IV) VERIFICATION THAT EITHER:

16 (A) MERV 13 FILTERS HAVE BEEN INSTALLED; OR

17 (B) THE MAXIMUM MERV-RATED FILTER THAT THE SYSTEM IS
18 ABLE TO EFFECTIVELY HANDLE HAS BEEN INSTALLED, INCLUDING AN
19 INDICATION OF THE MERV RATING OF THAT FILTER;

20 (V) THE VERIFIED VENTILATION RATES FOR OCCUPIED AREAS AND
21 WHETHER THOSE RATES MEET THE REQUIREMENTS SET FORTH IN THE
22 INTERNATIONAL MECHANICAL CODE. IF VENTILATION RATES DO NOT MEET
23 APPLICABLE GUIDANCE, THEN THE HVAC VERIFICATION REPORT MUST
24 INCLUDE AN EXPLANATION OF WHY THE CURRENT SYSTEM IS UNABLE TO
25 MEET THOSE RATES.

26 (VI) THE VERIFIED EXHAUST RATES FOR OCCUPIED AREAS AND
27 WHETHER THOSE RATES MEET THE REQUIREMENTS SET FORTH IN THE

1 SYSTEM'S DESIGN;

2 (VII) DOCUMENTATION OF REPAIRS, UPGRADES, OR
3 REPLACEMENTS PERFORMED IN RESPONSE TO:

4 (A) THE HVAC ASSESSMENT REPORT; AND

5 (B) THE MECHANICAL ENGINEER'S RECOMMENDATIONS MADE
6 PURSUANT TO SUBSECTION (5) OF THIS SECTION;

7 (VIII) DOCUMENTATION OF RECOMMENDATIONS FOR ADDITIONAL
8 MAINTENANCE, REPAIRS, REPLACEMENTS, OR UPGRADES TO IMPROVE
9 ENERGY EFFICIENCY, SAFETY, OR PERFORMANCE;

10 (IX) DOCUMENTATION OF INITIAL OPERATING VERIFICATIONS,
11 ADJUSTMENTS, AND FINAL OPERATING VERIFICATIONS AND
12 DOCUMENTATION OF ANY ADJUSTMENTS OR REPAIRS PERFORMED;

13 (X) VERIFICATION OF INSTALLATION OF CO2 MONITORS,
14 INCLUDING THE NUMBER OF MONITORS INSTALLED AND VERIFIED AND THE
15 MAKE AND MODEL OF EACH MONITOR; AND

16 (XI) VERIFICATION THAT ALL WORK HAS BEEN PERFORMED BY A
17 CERTIFIED CONTRACTOR OR THE CERTIFIED CONTRACTOR'S QUALIFIED
18 PERSONNEL, INCLUDING THE CONTRACTOR'S NAME, THE NAMES OF
19 QUALIFIED PERSONNEL, CERTIFICATION NUMBERS OF ANY QUALIFIED
20 PERSONNEL, AND VERIFICATION THAT ALL CONSTRUCTION WORK HAS BEEN
21 PERFORMED BY A CERTIFIED CONTRACTOR AND THE CERTIFIED
22 CONTRACTOR'S QUALIFIED PERSONNEL.

23 (c) THE SCHOOL ADMINISTRATIVE ENTITY SHALL MAINTAIN A COPY
24 OF THE HVAC VERIFICATION REPORT FOR AT LEAST FIVE YEARS AND
25 MAKE IT AVAILABLE TO THE PUBLIC UPON REQUEST.

26 (8) **Periodic inspections and ongoing maintenance.** (a) AT
27 LEAST ONCE EVERY FIVE YEARS, QUALIFIED PERSONNEL SHALL PERFORM

1 THE DUTIES CONCERNING ASSESSMENT, MAINTENANCE, ADJUSTMENT,
2 OPERATIONAL CONTROLS, AND CO2 MONITORS DESCRIBED IN
3 SUBSECTIONS (3) TO (6) OF THIS SECTION.

4 (b) IF A CLASSROOM CO2 CONCENTRATION ALARM SET POINT IS
5 EXCEEDED FOR MORE THAN FIFTEEN MINUTES MORE THAN FOUR TIMES IN
6 A MONTH, QUALIFIED ADJUSTING PERSONNEL SHALL EITHER ADJUST THE
7 CLASSROOM VENTILATION RATES OR INSTALL A DIRECT OUTSIDE AIRFLOW
8 MEASUREMENT DEVICE AND VERIFY ITS ACCURACY TO ENSURE PEAK CO2
9 CONCENTRATIONS IN THE CLASSROOM REMAIN BELOW THE SET POINT.

10 (c) EACH SCHOOL ADMINISTRATIVE ENTITY SHALL:

11 (I) RECORD EACH INCIDENT IN WHICH A CLASSROOM CO2
12 CONCENTRATION ALARM SET POINT WAS BREACHED;

13 (II) RETAIN EACH RECORD FOR AT LEAST FIVE YEARS; AND

14 (III) MAKE THE RECORDS AVAILABLE TO THE PUBLIC UPON
15 REQUEST.

16 (9) **Certified contractors.** (a) IF A SCHOOL ADMINISTRATIVE
17 ENTITY UNDERTAKES HVAC INFRASTRUCTURE IMPROVEMENTS AS
18 DESCRIBED IN THIS SECTION USING MONEY MADE AVAILABLE BY FEDERAL
19 GOVERNMENT SOURCES OR FEDERAL GOVERNMENT SOURCES IN
20 COMBINATION WITH STATE GOVERNMENT SOURCES SPECIFICALLY FOR
21 SUCH PURPOSE, THE SCHOOL ADMINISTRATIVE ENTITY SHALL:

22 (I) OBTAIN AND MAKE USE OF THE CERTIFIED CONTRACTOR LIST;
23 AND

24 (II) EMPLOY ONLY CERTIFIED CONTRACTORS FOR THE
25 PERFORMANCE OF THE HVAC INFRASTRUCTURE IMPROVEMENTS.

26 (b) THE DEPARTMENT SHALL PUBLISH THE CERTIFIED CONTRACTOR
27 LIST ON ITS WEBSITE AND INCLUDE OR REFERENCE THE LIST IN ALL OF THE

1 RELEVANT MARKETING MATERIAL FOR SCHOOL INFRASTRUCTURE
2 IMPROVEMENT PROGRAMS.

3 (c) THE REQUIREMENT DESCRIBED IN SUBSECTION (9)(a) OF THIS
4 SECTION DOES NOT APPLY TO MECHANICAL, PLUMBING, AND ELECTRICAL
5 WORK THAT IS PERFORMED PURSUANT TO A PROJECT LABOR AGREEMENT.

6 (10) **Grants.** (a) TO ACQUIRE MONEY TO PAY FOR HVAC
7 INFRASTRUCTURE IMPROVEMENT PROJECTS AS DESCRIBED IN THIS
8 SECTION, A SCHOOL ADMINISTRATIVE ENTITY MAY:

9 (I) SEEK AND ACQUIRE GRANT WRITING SUPPORT AND PROJECT
10 PLANNING SUPPORT FROM THE OFFICE OF THE GOVERNOR, AS DESCRIBED
11 IN SECTION 24-75-232;

12 (II) APPLY FOR GRANTS FROM FEDERAL AND STATE GOVERNMENT
13 SOURCES, INCLUDING THE BUILDING ELECTRIFICATION FOR PUBLIC
14 BUILDINGS GRANT PROGRAM CREATED IN SECTION 24-38.5-404;

15 (III) UTILIZE THE REGIONAL GRANT NAVIGATOR PROGRAM
16 ADMINISTERED THROUGH THE DEPARTMENT OF LOCAL AFFAIRS; AND

17 (IV) COORDINATE WITH THIRD PARTIES WITH EXPERTISE
18 PERTAINING TO FEDERAL FUNDING APPLICATION TECHNICAL ASSISTANCE,
19 INCLUDING ASSISTANCE CONCERNING:

20 (A) SCHOOL VENTILATION AND ENERGY EFFICIENCY VERIFICATION;

21 (B) SUSTAINABILITY PROJECT PLANNING;

22 (C) GRANT WRITING;

23 (D) TECHNICAL ASSISTANCE, SUCH AS ENGINEERING OR
24 FEASIBILITY STUDIES, NEEDED TO IMPROVE OR MAKE THE CASE FOR A
25 GRANT APPLICATION;

26 (E) COMPLIANCE WITH FEDERAL LABOR STANDARDS;

27 (F) INCENTIVES FOR TAX CREDITS;

1 (G) PROCUREMENT MATERIALS ASSOCIATED WITH THE FEDERAL
2 "BUILD AMERICA, BUY AMERICA ACT", SECTION 70901 ET SEQ., OF THE
3 FEDERAL "INFRASTRUCTURE INVESTMENT AND JOBS ACT", PUB.L. 117-58;

4 (H) PROJECT FINANCING EXPERTISE, SUCH AS CREATING AN
5 ON-BILL FINANCING AND REPAYMENT PROGRAM;

6 (I) COMPLIANCE WITH LABOR STANDARDS OUTLINED IN FEDERAL
7 FUNDING GUIDANCE; AND

8 (J) COMMUNITY BENEFIT PLAN DEVELOPMENT AND COMMUNITY
9 BENEFIT AGREEMENT NEGOTIATION AND IMPLEMENTATION, SUCH AS BEST
10 PRACTICES OR CONSULTANT FUNDS FOR COMMUNITY MEMBERS.

11 (b) IN APPLYING FOR A GRANT AS DESCRIBED IN SUBSECTION
12 (10)(a)(II) OF THIS SECTION, A SCHOOL ADMINISTRATIVE ENTITY SHALL
13 ENSURE THAT EACH GRANT APPLICATION INCLUDES A DESCRIPTION OF HOW
14 THE SCHOOL ADMINISTRATIVE ENTITY MUST COMPLY WITH APPLICABLE
15 LABOR STANDARDS OUTLINED IN FEDERAL FUNDING GUIDANCE, INCLUDING
16 STANDARDS PERTAINING TO:

17 (I) THE FEDERAL "DAVIS-BACON ACT OF 1931", PUB.L. 71-798;

18 (II) REGISTERED APPRENTICESHIP PROGRAMS AND OTHER LABOR
19 MANAGEMENT PARTNERSHIPS;

20 (III) PROJECT LABOR AGREEMENTS;

21 (IV) COMMUNITY WORKFORCE AGREEMENTS;

22 (V) COMMUNITY BENEFIT AGREEMENTS; AND

23 (VI) PREVENTION OF WORKER MISCLASSIFICATION.

24 **SECTION 3.** In Colorado Revised Statutes, **add** 22-5-123 as
25 follows:

26 **22-5-123. BOCES - ventilation and energy efficiency**
27 **verification and repair.** ON AND AFTER THE EFFECTIVE DATE OF THIS

1 SECTION, IF A BOCES UNDERTAKES HVAC INFRASTRUCTURE
2 IMPROVEMENTS USING MONEY MADE AVAILABLE BY A FEDERAL
3 GOVERNMENT SOURCE OR BY A FEDERAL GOVERNMENT SOURCE IN
4 COMBINATION WITH A STATE GOVERNMENT SOURCE SPECIFICALLY FOR
5 SUCH PURPOSE, THE BOCES SHALL COMPLY WITH THE REQUIREMENTS
6 DESCRIBED IN SECTION 22-32-152 IN IMPLEMENTING THE HVAC
7 INFRASTRUCTURE IMPROVEMENTS.

8 **SECTION 4.** In Colorado Revised Statutes, **add** 22-30.5-121 as
9 follows:

10 **22-30.5-121. Charter schools - ventilation and energy**
11 **efficiency verification and repair.** ON AND AFTER THE EFFECTIVE DATE
12 OF THIS SECTION, IF A CHARTER SCHOOL UNDERTAKES HVAC
13 INFRASTRUCTURE IMPROVEMENTS USING MONEY MADE AVAILABLE BY A
14 FEDERAL GOVERNMENT SOURCE OR BY A FEDERAL GOVERNMENT SOURCE
15 IN COMBINATION WITH A STATE GOVERNMENT SOURCE SPECIFICALLY FOR
16 SUCH PURPOSE, THE CHARTER SCHOOL SHALL COMPLY WITH THE
17 REQUIREMENTS DESCRIBED IN SECTION 22-32-152 IN IMPLEMENTING THE
18 HVAC INFRASTRUCTURE IMPROVEMENTS.

19 **SECTION 5.** In Colorado Revised Statutes, **add** 22-30.5-531 as
20 follows:

21 **22-30.5-531. Institute charter schools - ventilation and energy**
22 **efficiency verification and repair.** ON AND AFTER THE EFFECTIVE DATE
23 OF THIS SECTION, IF AN INSTITUTE CHARTER SCHOOL UNDERTAKES HVAC
24 INFRASTRUCTURE IMPROVEMENTS USING MONEY MADE AVAILABLE BY A
25 FEDERAL GOVERNMENT SOURCE OR BY A FEDERAL GOVERNMENT SOURCE
26 IN COMBINATION WITH A STATE GOVERNMENT SOURCE SPECIFICALLY FOR
27 SUCH PURPOSE, THE INSTITUTE CHARTER SCHOOL SHALL COMPLY WITH THE

1 REQUIREMENTS DESCRIBED IN SECTION 22-32-152 IN IMPLEMENTING THE
2 HVAC INFRASTRUCTURE IMPROVEMENTS.

3 **SECTION 6.** In Colorado Revised Statutes, **add** 22-80-120 as
4 follows:

5 **22-80-120. Ventilation and energy efficiency verification and**
6 **repair.** ON AND AFTER THE EFFECTIVE DATE OF THIS SECTION, IF THE
7 SCHOOL UNDERTAKES HVAC INFRASTRUCTURE IMPROVEMENTS USING
8 MONEY MADE AVAILABLE BY A FEDERAL GOVERNMENT SOURCE OR BY A
9 FEDERAL GOVERNMENT SOURCE IN COMBINATION WITH A STATE
10 GOVERNMENT SOURCE SPECIFICALLY FOR SUCH PURPOSE, THE SCHOOL
11 SHALL COMPLY WITH THE REQUIREMENTS DESCRIBED IN SECTION
12 22-32-152 IN IMPLEMENTING THE HVAC INFRASTRUCTURE
13 IMPROVEMENTS.

14 **SECTION 7.** In Colorado Revised Statutes, 24-75-232, **add**
15 (5)(e) as follows:

16 **24-75-232. "Infrastructure Investment and Jobs Act" cash**
17 **fund - creation - allowable uses - report - legislative declaration -**
18 **definitions - repeal.** (5) (e) (I) THE OFFICE MAY EXPEND MONEY FROM
19 THE FUND TO PROVIDE GRANT WRITING SUPPORT AND PROJECT PLANNING
20 SUPPORT TO SCHOOL DISTRICTS, BOCES, THE COLORADO SCHOOL FOR THE
21 DEAF AND THE BLIND, CHARTER SCHOOLS, AND INSTITUTE CHARTER
22 SCHOOLS THAT ARE UNDERTAKING HVAC INFRASTRUCTURE
23 IMPROVEMENTS AS DESCRIBED IN SECTION 22-32-152.

24 (II) FOR THE PURPOSES OF THIS SUBSECTION (5)(e), THE OFFICE
25 MAY COORDINATE WITH THIRD PARTIES WITH EXPERTISE PERTAINING TO
26 FEDERAL FUNDING APPLICATION TECHNICAL ASSISTANCE, INCLUDING
27 ASSISTANCE CONCERNING:

- 1 (A) SCHOOL VENTILATION AND ENERGY EFFICIENCY VERIFICATION;
- 2 (B) SUSTAINABILITY PROJECT PLANNING;
- 3 (C) GRANT WRITING;
- 4 (D) TECHNICAL ASSISTANCE, SUCH AS ENGINEERING OR
- 5 FEASIBILITY STUDIES, NEEDED TO IMPROVE OR MAKE THE CASE FOR A
- 6 GRANT APPLICATION;
- 7 (E) COMPLIANCE WITH FEDERAL LABOR STANDARDS;
- 8 (F) INCENTIVES FOR TAX CREDITS;
- 9 (G) PROCUREMENT MATERIALS ASSOCIATED WITH THE FEDERAL
- 10 "BUILD AMERICA, BUY AMERICA ACT", SECTION 70901 ET SEQ., OF THE
- 11 FEDERAL "INFRASTRUCTURE INVESTMENT AND JOBS ACT", PUB.L. 117-58;
- 12 (H) PROJECT FINANCING EXPERTISE, SUCH AS CREATING AN
- 13 ON-BILL FINANCING AND REPAYMENT PROGRAM;
- 14 (I) COMPLIANCE WITH LABOR STANDARDS OUTLINED IN FEDERAL
- 15 FUNDING GUIDANCE; AND
- 16 (J) COMMUNITY BENEFIT PLAN DEVELOPMENT AND COMMUNITY
- 17 BENEFIT AGREEMENT NEGOTIATION AND IMPLEMENTATION, SUCH AS BEST
- 18 PRACTICES OR CONSULTANT FUNDS FOR COMMUNITY MEMBERS.

19 **SECTION 8. Safety clause.** The general assembly finds,
20 determines, and declares that this act is necessary for the immediate
21 preservation of the public peace, health, or safety or for appropriations for
22 the support and maintenance of the departments of the state and state
23 institutions.