

School Construction Resource Manual

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1. Facilities Planning

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Educational facilities are often regarded as educational tools designed to facilitate, promote, and stimulate the educational program. Actually, educational facilities sometimes possess physical characteristics that impose severe restrictions on the educational program. Inadequate or unsuitable instructional facilities can reshape, limit, or modify the school curriculum beyond tolerable limits. Consequently, school boards and administrative leaders must clearly envision the complete educational task to be accomplished before any long-range program is developed.

Local education agencies (LEAs) planning for new buildings must deal with complex issues and needs—inflation, energy conservation, extending the use of school facilities as a community resource, providing appropriate technology to the classroom, modernizing and extending the life of existing facilities, designing to avoid vandalism, providing flexibility to allow for appropriate responses to future unknown needs, providing for students and other individuals with disabilities, etc. At the same time, the problems of planning and designing economical buildings to construct and to operate for the best possible support of the educational program remains paramount.

a. The Importance of Planning

The greater the challenge, the more important prudent planning becomes to an effective school building program. Well-designed, functional educational facilities where they are needed, and available for use when they are needed, are an essential support to an effective educational program. Such educational facilities designed for high benefit-cost ratio are essential to a cost-effective educational system.

Such building programs don't just happen; they must be well planned. Planning for the total building program and planning for the individual school, if done well, are difficult, time-consuming activities which can tax the talents and energies of a large number of people, but returns are more than worth it. The greatest assurance of a successful building program is a long-range master plan of school facility needs.

The responsibility of the planning process rests with the LEA board and administration. It is not uncommon for educators to blame the architect or engineer for deficiencies in a particular building; however, quite often such deficiencies can be traced directly to a lack of educational planning. Often, poorly designed school facilities result from poorly conceived and incomplete education specifications or from the educator abdicating the responsibility to the design architect.

b. Long-Range Planning

A long-range planning process provides a comprehensive plan for the orderly replacement of buildings and the addition of buildings to accommodate



growth. A district-wide or charter school building plan may be projected over many years; however, a minimum plan should encompass the five years of the district's and charter's Comprehensive Capital Outlay Plan. This plan should include current utilization of educational facilities, projected school enrollments, school building needs, support building needs, sites, and fiscal projections for the five-year period. The State Office of Education recommends proper programming, input from the appropriate school staff and design professionals to develop proper [Right-Sizing](#) of school facilities, and spaces, to follow when planning the overall size of a facility.

(1) Planning Philosophy

The planning document should include a statement which delineates area community aspirations and education goals. These goals and aspirations form the basis of a sound philosophy from which decisions are made in education planning.

(a) Community Aspirations and Goals

A study should be made to review the area's history, traditions, socioeconomic conditions, and projections for the future in terms of interests and willingness to pay for new facilities. Needs assessments, [Right-Sizing](#) data, and other survey instruments may well be used to determine local thinking and ambitions. Regional and community master plans and zoning requirements lend a great deal of insight to the observer in terms of the area's interests and potential. In addition, close coordination with [municipalities](#), [counties](#), [local health department](#) officials, the [State Fire Marshal](#), [State Department of Environmental Quality](#) and/or the federal [Environmental Protection Agency](#), as well as the current building codes to be sure the school district's and charter school's master plan will appropriately match the community's long-term plans. (Click here to see [Design Principles for Developing Schools as Centers of Community](#) from NCEF, the National Clearinghouse for Educational Facilities.)

(b) Education Goals

The lifestyle of a community will reflect an affinity to certain subject areas and vocations, such as the arts, sciences, career and technical education, or perhaps languages. In addition to the basic Core subjects required by the State Board of Education and the local board, a determination should be made regarding the intensity of desire by parents for the education of their children and the types of additional subjects they expect. It is also helpful to know parents' attitudes toward such things as educational experimentation, innovation, traditionalism, and discipline. Knowledge concerning these items should determine the distribution of staff, and financial support in school facility construction and utilization.

(c) Identify the Most Suitable Grade Organization

There may be several solutions regarding grade organization and attendance areas in a school district or charter school, depending on the philosophy and character of the educational program, distribution of pupil homes, and the capacity, location, and use of existing schools. Any grade organization should be carefully considered in terms of educational, psychological, and operational factors. The fact that a given grade organization works well in one school district or charter school is no guarantee that it will work or even be applicable

to any other. To some degree, the capacity, location, and type of available facilities will favor one grade organization over another, but the focus should be primarily on the educational soundness of the plan, rather than simply providing space for student desks. The recommended grade organization should help to provide high-quality education and effective utilization of present facilities with a minimum of student inconvenience.

(d) Long-Term Economy

A good long-range plan is geared to long-term economy in capital outlay, maintenance, and operation. Such a plan provides maximum space utilization and keeps costs of operation, maintenance, transportation, supervision, and administration to a minimum. Buildings with high maintenance cost per pupil should be scheduled for abandonment or renovation. Schools that are too small to offer a broad program of modern instruction should either be renovated or not be continued in operation except on an emergency, or absolute necessity, basis.

(e) Flexibility

Any long-range plan must provide for the foreseeable as well as provide allowances for the unforeseeable. The plan should be devised so as to leave as many alternatives as possible open to future boards of education. For example, if a school district board has a choice for providing two high school educational facilities or one; it would be far more advantageous from the standpoint of future planning and community growth to include two high schools in the long-range plan. The flexibility of such a plan is quite clear. Any future board of education could add to one or both schools; in the event of an enrollment downturn, could eliminate one high school before it is built; or in the event of a large growth pattern in a given area, could simply plan a third unit and still remain in balance in the size of the high schools in the district.

(2) Enrollments

School enrollment and projections are critical elements of long-range facility planning. Student populations usually grow and decline within a predictable cyclical range. Utilizing historical trends, demographic and economic data, state and local agencies and private entities can assist LEA planners in making large or small-area projections. These may include the Governor's Office of Planning and Budget [[Governor's Office of Planning and Budget](#)], utility companies [[Rocky Mountain Power](#)] [[Questar Gas](#)], Utah Association of Realtors [[Utah Association of REALTORS®](#)], Associations of Local Governments [[Utah Association of Governments](#)], as well as the State Office of Education [[Utah State Office of Education—USOE](#)].

(3) Survey of Existing School Facilities

A thorough knowledge of existing school plants is necessary for effective planning. Facilities should be surveyed for educational adequacy, physical condition, life-cycle cost projections, possible temporary housing, and plans for orderly replacement.

(a) Educational Adequacy

Several items need to be checked when considering educational adequacy for the future. Is the site large enough for the educational program? Are special facilities needed to house unique local programs? Does the school district or charter school have objectives and plans to provide needed facilities for students with disabilities? Do the buildings have adequate capacity for future growth? Do buildings have flexibility to respond to change in space demands?

(b) Right-Sizing – Building Physical Condition Evaluation

Providing proper sizing and types of spaces are critical to facility successes. As a result of the November 2008 State Legislative Auditor's office publishing the results of the Performance Audit of School Building Construction, and the USOE review of "Per Student Space Criteria," USOE's School Finance established the right-sizing committee to determine proper sizes and uses for facilities.

One portion of the audit recommended that school districts apply the USOE recommended guidelines for square feet per student. The School Finance section at the USOE, which is charged with oversight of school construction, determined that the "Per Student Space Criteria" may be outdated and was also unable to ascertain the origin of this criterion.

The right-sizing committee comprised of individuals from the USOE, school districts, and architectural firms were charged with reviewing and determining if the guidelines needed to be updated to be in line with current standards, codes, rules, statutes and guidelines, or if changes needed to be made.

The committee determined the best process to follow would be to:

- Develop an instructive narrative explaining the best practices for school programming.
- Gather data through surveys to LEAs regarding spaces of school facilities throughout the state; compiling the information to determine high and low parameters to recommend, as well as averages for various spaces.
- Work to gather regional and national data about school facility spaces, comparing them to well-functioning schools in Utah, and about Utah school facilities to determine if any spaces would need to be reexamined in the future.

DEVELOPING SCHOOL RIGHT-SIZING PRACTICES

Any successful educational facility project must include proper determination of the size of its spaces to adequately provide complete pedagogical and functional support to programs and school activities. The realization of the following programming goals in the development of spaces provides the foundation for the facilities total success:

PROGRAMMING GOALS

1. **Value:** in designing the right amount of space without needless waste.
2. **Flexibility:** built-in for use now and to accommodate uses into the foreseeable future (including structures).

3. **Identification:** of all, actual program and activity need (without the excess of personal desire).
4. **Consensus:** agreement of space requirements and design from designated stakeholder group (consisting of more than just a single interest group).

Development of **right-sized educational spaces** cannot generally be accomplished by utilizing a state wide or nationwide maximum allowable square footage chart. Therefore, the USOE has developed a Right-Sizing Educational Form to assist LEAs in the appropriate development of spaces within school facilities.

Right-Sizing as incorporated in the “SP-5 Final Plans Data on Proposed School Facilities Form” should be used as a guide, to provide LEA staff and the design professional with guidelines of space areas that have been successfully employed by other LEAs throughout the state of Utah, and will eventually include regional and national comparisons. The form should be used as a tool in the programming effort to provide a starting point as well as a check and balance to ensure that the program is developing spaces which have the appropriate amount of area. The development of spaces which are undersized for their intended use is equally wasteful of available construction budget as other accommodations or the loss of proper educational program utilization will result. This is why it is so important to follow a programming methodology.

The following are common reasons that programmed spaces are overdeveloped:

- Inexperienced design professional lacking proper understanding of educational program space requirements
- The personalization of spaces to individual instructors’ perceived needs
- Inadequate programming procedures which do not effectively identify actual space needs and requirements, but are based on intuitive feel or personal bias
- Stakeholders groups assembled without an adequate cross section of knowledgeable participants
- Lack of curriculum/program understanding

RIGHT SIZING PROGRAMMING FRAMEWORK

1. **Establish a stakeholder** group to work with the design professional to develop programmed spaces. It is recommended that the group consider inclusion of the following representatives to ensure appropriate representation by stakeholders:
 - School Board representatives, district or charter school administration, curriculum/program directors, school level administration, facility/maintenance staff, teachers, students, parents, community representation.
2. **Conduct Stakeholder Consensus meetings** to develop actual program and learning activity needs.
 - Consider designated use of space (furniture, cabinets, equipment, etc.).
3. **Develop area spreadsheets** to identify individual spaces and total building area from stakeholder consensus data.
 - Compare programmed areas with right-sizing guidelines to evaluate viability with other school programs in the state.
 - Calculate net to gross square footage totals (staying within acceptable limits).

4. Review final space development and areas with the stakeholder group.

- Once the stakeholder group has approved the final programmed areas, submit the project area net to gross Right-Sizing Educational Form to the USOE for evaluation.
- If final programmed area/areas fall outside of right sizing guidelines, include narrative descriptions and outline the necessity to vary from the Form for evaluation and review by the USOE.
- The narrative should clearly delineate the support the programmed area will provide to the required educational programs and curriculum established and required by the local School Board.

5. The SP-5 Final Plans Data on Proposed School Facilities Form which incorporates Right-Sizing information shall be submitted to the USOE by the end of programming, but no later than commencement of design development.

USOE set several goals regarding the School Right-Sizing Committee, the new SP-5 forms and data collected, including:

- Having LEAs use the documents as they consider school construction, with parameters to assist them in consideration of proper design of spaces.
- Having documents for use by design professionals which provide parameters for public school facilities in Utah, in which any deviation from the parameters set forth requires an explanation as to the reasoning behind the variance(s).
- Developing a database to gather information about school construction, building on the original data gathered, to ascertain trends as well as changes in design criteria, to assist those involved in school facility design and construction.
- Providing documents which assist in (internal) control, to help ensure compliance with regard to the suggestions from the Legislative Audit.
- Providing a process that is transparent regarding public school construction space sizing.
- Providing a process that is helpful for LEAs, with regard to historical records relating to philosophy and reasoning in school facility design for each project.

The School Right-Sizing forms process should be considered living documents, which will be reviewed, modified, updated, etc., as facility usage and interpretations occur. It is recommended that all design professionals check the USOE “Facilities” web page regularly, for any changes, updates, modifications, etc.:

<http://usoewebstage/finance/Facilities.aspx>.

Survey data for facilities were assembled and analyzed to determine criteria such as historical minimums, historical maximums, weighted averages, variances, etc.

The results involve changes to the USOE SP-5 Final Plans Data on Proposed School Facilities form used for reporting new construction and renovations to existing facilities. The modified [SP-5](#) form includes tables to add specific details regarding quantities, individual square footages areas, total square footages areas and comments for areas falling outside of the parameters indicated—based on the information collected from surveys. Four separate forms were

developed for the specific type of facility: elementary, junior high, high school, and charter.

(c) Temporary Housing

In some school districts or charter schools, a peak enrollment period will be predicted, will in fact occur, and will be followed by an enrollment decline. In other districts or charters, growth may be so rapid that permanent construction does not keep pace with school housing needs. These circumstances may warrant using portable classrooms—[relocatables](#)—just before the peak is achieved or while new facilities are being planned to affect the most economical solution to such problems.

(d) Orderly Replacement of Facilities

Long-range planning should provide for the orderly replacement of all school facilities over a period of 50 to 75 years. General obligation bonding, voted capital property tax levies, or use of capital outlay reserve funds are methods which may be used by school districts to accomplish this task. Charter schools may use other methods such as lease or lease-purchase agreements, or—using a not-for-profit designation—secure bonds for facility purchase, or they may use other long-term private or public (more than one year) financing.

(4) Fiscal Ability Projections

A long-range building program should be geared to the financial ability of the school district or charter school. It should be realistic and practical from the standpoint of public acceptance but should not compromise desirable goals and sound educational principles. Fortunately, most Utahns are willing to support good education if they are fully informed of current needs and the soundness of proposed methods of meeting the needs.

For school districts to make accurate forecasts of their capital outlay financial abilities, it is necessary to project assessed valuations, bonding ability, reserve fund potential, debt service, and estimated state and other building aid. These components, together with the statutes and administrative rules, provide the basis of projections regarding the financial ability of a school district. Charter schools may lease former school district or other educational institution facilities; they may secure long-term financing through cooperation with local municipalities; or they may secure other private financing or bonding through a not-for-profit designation.

(5) District or Charter School Advisory Committees

The formation of a representative advisory committee, together with community advisory committees, to assist in long-range planning can be a positive reinforcement for an effective school building program. Committee members should include parents, community leaders, and others interested in long-range facility planning. If the working parameters of such a committee are carefully defined, their recommendations will be of great assistance to the district or charter school administration and local board of education in formulating long-range plans.

(6) Priority of Building Projects

One part of each school district's and charter school's five-year Comprehensive Capital Outlay Plan is to list, in order of priority, all identified additions, remodels and new construction needs. The district and charter administration and board should establish priority criteria. Three desirable features of this method of projection are:

- The inclusion of all additions, remodeling and new construction.
- The time sequence proposed for completion of all projects.
- The estimated costs of each project.

As conditions change within a school district or at a charter school, the priority of building construction needs will require some revision. Evaluation and updating of the priority criteria as well as the specific building priority ratings should be completed at regular intervals.

(7) When You Are Ready to Begin Construction

When you are ready to begin the construction process, a checklist is a handy tool to use to ensure your process is timely, complete and sequential. The checklist needs to cover the following general topics:

- Architect
- General contractor
- Survey's and testing
- Schematic design
- Local and state governmental review
- Construction documents and plan reviews
- Construction
- Punch list
- Final documents

(8) Maintaining Facilities

A program should be incorporated for each facility, to include scheduled maintenance, upgrades, compliance with health and fire codes, and proper cleaning.

2. School District Building Official Charter School Board Building Officer and School Construction Inspection

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a. Selection and Role

The state adopted building code—[Utah Code Section 58-56](#)—provides for local regulators for the regulation of construction, remodeling, alteration, building, and other activities. Local boards of education and local charter school boards are accountable to ensure that all LEA permanent and temporary construction, renovation and inspection is conducted in accordance with the state adopted building code; [Utah Code Section 58-56-3](#) of the Utah Code states:

(4) "Compliance agency" means:

(a) An agency of the state or any of its political subdivisions which issues permits for construction regulated under the codes;

(b) Any other agency of the state or its political subdivisions specifically empowered to enforce compliance with the codes; or

(c) Any other state agency which chooses to enforce codes adopted under this chapter by authority given the agency under a title other than Title 58, Occupations and Professions.

Local education agencies (LEAs) are tasked with assigning a person to be responsible for code enforcement issues. State Board of Education [Administrative Rule R277-471-3](#),

"Oversight of School Inspections," requires a School District Building Official and Charter School Board Building Officer to be appointed by each school board and charter school board:

A. Local boards of education and local charter school boards shall be accountable to ensure that all school district and charter school permanent or temporary construction, renovation, and inspection is conducted in accordance with the Code.

1) Local school boards shall appoint a School District Building Official (SDBO) who has direct administrative and operational control of all construction, renovation, and inspection of public school district facilities within the school district and shall provide in writing the name of the SDBO to the USOE.

2) Charter school boards shall be accountable to the State Charter School Board and the Board to ensure that all charter school permanent or temporary construction, renovation, and inspection is conducted in accordance with the Code. Each local charter school board shall appoint a local Charter School Board Building Officer (CSBBO) who has direct operational responsibility for construction, renovation, and inspection of the charter school. The local Charter



School Board Building Officer shall report regularly to the local charter school board.

- (a) The local charter school board shall provide the name of this officer in writing to the Superintendent.*
- (b) The local charter school board shall promptly notify the Superintendent in writing of any changes of this individual...*

B. The SDBO shall monitor school district building construction to ensure compliance with all provisions of the Code.

C. The CSBBO shall monitor all charter school building construction to ensure compliance with all provisions of the Code.

D. The SDBO and CSBBO shall render interpretations of the Code for the school district or charter school. Such interpretations shall be in conformance with the intent and purpose of all applicable Codes and Administrative Rules, insofar as they are expressed in Code, Rule, or in legislative intent.

*E. The SDBO and CSBBO may adopt and enforce supplemental school district and charter school policies under appropriate school district and charter school policies to clarify the application of the provisions of all Codes and Rules for school district and charter school personnel, **but must be at least as restrictive as all applicable Codes and Rules.***

The State Office of Education is responsible for developing and publishing this School Construction Inspection Resource Manual. LEA boards, administrators and other personnel are required to act consistent with this Resource Manual. [Rule R277 471-7](#) states:

- A. The USOE shall develop and distribute to each school district and charter school a Resource Manual.*
- B. The Resource Manual shall include process, legal requirements and resource information on school building construction and inspections.*
- C. The USOE shall review and, if necessary, update the Resource Manual annually.*
- D. The Board, local school boards, charter school boards, as well as school district and charter school personnel shall act consistent with the Resource Manual.*

Local school boards shall appoint a School District Building Official (SDBO) who has direct administrative and operational control and responsibility for inspection of all new construction, building additions, and building renovations of public school district facilities within the school district and shall provide in writing the name of the SDBO to the State Office of Education (USOE). School districts must promptly notify USOE officials of any changes of this individual. The SDBO is also responsible for coordinating with local municipalities and counties and the State Office of Education to ensure that the appropriate documents are filed in a timely manner for all construction projects exceeding \$99,999 in cost, those funded with federal dollars, and those USOE will be issuing the "Certificate of Occupancy." See a current list of [School District Building Officials \(SDBOs\) and Charter School Board Building Officers \(CSBBOs\)](#).

Local school boards shall be accountable to the State Board of Education to ensure that all school district permanent or temporary construction, renovation,

and inspection are conducted in accordance with the state adopted building code ([UCA 53A-20 "School Construction"](#)) and in accordance with Administrative Rules [R392-200 "Design, Construction, Operation, Sanitation and Safety of Schools"](#) and [R277-471 "Oversight of School Inspections."](#)

Charter school boards shall be accountable to the State Charter School Board and the State Board of Education to ensure that all charter school permanent or temporary construction, renovation, and inspection is conducted in accordance with the state adopted building code ([UCA 53A-20 "School Construction"](#)) and in accordance with Administrative Rules [R392-200 "Design, Construction, Operation, Sanitation and Safety of Schools"](#) and [R277-471 "Oversight of School Inspections."](#) Each local charter school board shall appoint a local Charter School Board Building Officer (CSBBO) who cannot be an employee or hired by the contractor/developer, and who has direct administrative and operational control and responsibility for inspection of all facilities new construction, building additions, and building renovations of the charter school. The local CSBBO shall report regularly to the local charter school board. The local charter school board shall provide the name of this building officer in writing to the State Office of Education and shall promptly notify USOE officials of any changes of this individual. The local CSBBO shall monitor all charter school building construction and inspection to ensure compliance with the provisions of the state adopted building code ([UCA 53A-20](#)). The local CSBBO is also responsible for coordinating with local municipalities and counties and the State Office of Education to ensure that the appropriate inspection and construction documents are filed in a timely manner for all construction projects exceeding \$99,999 in cost, and/or those inspected by other than the local jurisdiction (city or county) or the school district in which the facility is housed.

The SDBO and local CSBBO may adopt and enforce supplemental LEA policies under appropriate LEA policies to clarify the application of the provisions of the state adopted building code ([UCA 53A-20](#)) for LEA personnel. Such interpretations shall be in conformance with the intent and purpose of the building code insofar as they are expressed in the building code or in legislative intent. Further, in accordance with LEA administrative procedures, and with the approval of the district school board or charter school board, LEAs may appoint such technical officers, inspectors, and other employees as shall be authorized from time to time. All those providing inspections and/or reviews must hold current ICC certification and licensing through DOPL in the area the review or inspection is taking place. All ICC ([International Code Council](#))-certified and Utah state licensed inspectors ([DOPL—Utah Division of Occupational and Professional Licensing](#)) inspecting school district or charter school construction projects must be Class I licensed (large commercial) for the category(s) for which they are licensed to inspect. The School District Building Official (SDBO) or Charter School Board Building Officer (CSBBO) may deputize such inspectors or employees as may be necessary to carry out the functions of the school district or charter school as the local regulator. All inspections and reviews are required to comply with Administrative Rule R277-471.

If a school district or charter school is unable to provide appropriate and proper school construction inspection services, the State Superintendent of Public Instruction may provide for inspection services from a list of inspectors determined by the Superintendent and charge the school district or charter school for those services. Fees shall be established in advance of inspection services.

b. Coordination

Because LEA construction can have a significant impact on such things as local truck, automobile and school bus traffic movement patterns, the location of utilities and other infrastructure components supporting schools, and planning and zoning ordinances within a community or neighborhood; prior to developing plans and specifications for a new public school, or the expansion of an existing public school, LEAs shall coordinate with affected local governmental land use authorities and utility providers [[53A-20-108](#) of the Utah Code].

LEAs must also ensure that the siting or expansion of a school in the intended location will comply with applicable local government general plans and will not conflict with entitled land uses [[10-9a-305 \(2\) \(a\) and \(b\)](#) and [10-9a-406](#) of the Utah Code]. In addition, districts and charters must ensure that all local government services and utilities required by the school construction activities can be provided in a logical and cost-effective manner and that potential traffic hazards—including consideration of the impacts between the new school and future roadways—are avoided or appropriately mitigated.

Prior to developing plans and specifications for a new school or the expansion or renovation of an existing school, LEAs must also coordinate with [local health department](#) officials, the [State Fire Marshal](#), [State Department of Environmental Quality](#) and/or the federal [Environmental Protection Agency](#), and may coordinate with the [Utah Geological Survey](#).

To ensure that geologic and seismic hazards are considered at all proposed LEA sites, Utah Geological Survey (UGS) recommends the following (please note that these are optional):

- Prior to purchase or design, have an initial “screening” of the site for geological hazards.
- Once a site is chosen, require that a qualified geo-technical consultant include in a technical investigation a complete site-specific geologic-hazards evaluation.
- The school district or charter school may choose to submit the geo-technical consultant’s report to UGS for review (to provide additional input); UGS will evaluate the adequacy of the report and submit a review letter with a checklist to the school district or charter school recommending either approval or further work. Note: Reviews performed by UGS may require a fee to be carried out.

Charter schools are considered a permitted use in all zoning districts within a municipality or county except when a municipality or county has designated zones for sexually oriented businesses, or businesses which sell alcohol. A charter school may be prohibited from locations which would defeat the purpose of the zone, unless the charter school provides a waiver of liability for the government entity by the charter school local board in an open meeting. Each land use application for an approval required for a charter school, including consideration to build, must be processed on a first priority basis by municipalities and counties. Parking requirements for a charter school may not exceed the minimum parking requirements for traditional public schools of like size and grade levels or other institutional public uses throughout the municipality or county.

Before any local education agency (LEA) construction project begins, LEAs must obtain a construction project number from the USOE by completing and submitting construction project forms as listed on the "[Pre-Construction Checklist](#)," including [Preliminary Information on Proposed School Facilities Construction—Form SP-4](#) and [Final Plans Data on Proposed School Facilities Construction—Form SP-5](#) provided by the USOE for all projects which exceed \$99,999 in cost, are paid for using federal funds, and/or will require the "Certificate of Occupancy" be obtained through the USOE.

All LEA plans and specifications must be reviewed and approved by a current properly licensed and certified plans examiner before any school district or charter school construction project begins. Inspections can be obtained through three different sources as outlined in the [\(1\) Public School District Construction Inspection](#) section below. Many municipalities and county building departments have at least one certified plans examiner on staff. Plans for examiner certification verification may be obtained by checking the ICC Safe website [[International Code Council](#)]; go to "Certification and Testing," then to "Search for an ICC Certified Code Professional" to see what the disciplines and areas the inspector is qualified to inspect; look for "Building Plans Examiner." In general, the least amount of information supplied for each search provides the best results—usually providing the state and the last name of the inspector.

The School District Building Official (SDBO) and the local Charter School Board Building Officer (CSBBO) must also identify and provide to the State Office of Education and to the local government entity building official the total number of inspections with the name, state license number, when the license expires, and disciplines of each inspector monthly using the [SP-8 Construction Inspection Summary Report](#) form along with all supporting documentation. In addition, the SDBO and the CSBBO must ensure that each inspector is adequately and appropriately credentialed to provide inspections and/or reviews. See [Department of Occupational and Professional Licensing, Licensee Lookup and Verification](#) or [Utah Chapter of the International Code Council](#) or the [Beehive Chapter of the International Code Council](#); or check the ICC Safe website [[International Code Council](#)]; go to "Certification and Testing"; go to "Search for an ICC Certified Code Professional" to verify the ICC certification the person has qualified for; look for "Building Inspector," "Certified Building Official," or "Combination Inspector," etc.

When the project is completed, the SDBO and the CSBBO must obtain the final inspection from the inspector of record and the Certificate of Fire Clearance from the Utah State Fire Marshal's office and submit it with the [SP-9 Final Inspection Certificate](#), and complete and sign the final Certificate of Inspection and Verification form [[School Building Certificate of Inspection Verification--Form SP-11](#)], certifying all inspections were completed in compliance with the state adopted building code ([UCA 58-56](#)) and rule [R277-471, "Oversight of School Inspections,"](#) and complete and send the final completed Inspection Certification and Inspection form to the USOE and to the appropriate local government entity building official upon completion of the project. When the requirements for the SP-9 and SP-11 have been met, the SP-10 "Certificate of Occupancy" or the "Request for a Certificate of Occupancy" shall be submitted along with all supporting documentation.

(1) Public School District Construction Inspection

A public school district may employ one of three methods for school construction inspection [[Utah Code 53A-20-104](#)] that must be procured, paid for and acting as an agent of the school district:

- (a) An independent, properly licensed and ICC certified building inspector;
- (b) A properly licensed and ICC certified building inspector employed by the school district; or
- (c) A properly licensed and ICC certified building inspector approved by the local jurisdiction in which the construction activity occurs.

(a) Procedure for School District Using Independent Properly Licensed and Certified Building Inspector

(i) Monthly Inspection Summaries

The School District Building Official (SDBO) must provide, on a monthly basis during construction, a copy of each inspection and testing certificate performed in the month being reported and a monthly inspection summary [[Construction Inspection Summary Report—Form SP-8](#)] regarding the school building to the State Superintendent of Public Instruction, or the designee, and to the appropriate local governmental entity building official where the building is located for each project that exceeds \$99,999 in cost, those paid for using federal funds, and/or those the “Certificate of Occupancy” will be obtained through the USOE. The SDBO must identify in the monthly summary reports the total number of inspections as well as the name, state license number and disciplines of the state licensed/certified inspectors performing the building inspections.

Notwithstanding any local agreements between municipal and county building authorities and local school districts, all school districts must submit these reports each month, no later than the 15th of the month for the preceding month’s activities. In addition, school districts must keep copies of all individual inspection documents at an identified location in the district for auditing and follow-up purposes. **These reports may be paper or electronic.**

Unlike the private sector, the independent building inspector cannot be an employee of the architect, developer, contractor or any subcontractor on the project, must be approved by the applicable local government or school district building inspector, and must be properly licensed and ICC certified to perform all of the inspections that the inspector is required to perform in the field of inspection.

(ii) Final Inspection Certification

After completion of the project, the SDBO shall—upon completion of all required inspections of the school building—complete and file with the State Office of Education and the building inspector of the local jurisdiction in which the building is located, a completed [School Building Certificate of Inspection Verification—Form SP-11](#) and complete and file a [Final Inspection Certification—Form SP-9](#), along with all supporting documents, including Certificate of Fire Clearance from the Utah State Fire Marshal’s office and the final inspection by the inspector of record, certifying that all inspections were completed in accordance with the state adopted building code ([UCA 53A-20](#)).

(iii) Certificate of Occupancy

The SDBO must also seek a certificate authorizing permanent occupancy of the school building from the State Superintendent, or designee. Within 30 days after the school district files a request for the issuance of a certificate authorizing permanent occupancy of the school building, the Superintendent, or designee, will either issue to the school district a certificate authorizing permanent occupancy of the school building [[Request for Certificate of Occupancy—Form SP-10—State Superintendent](#)] or deliver to the local school board a written notice indicating the deficiencies in the school district's compliance with the inspection findings and mail a copy of the certificate authorizing permanent occupancy or the notice of deficiency to the building official of the local government entity in which the school building is located. Upon the local school district filing of the completed Certificate of Inspection Verification, the Final Inspection Certification forms, the Certificate of Fire Clearance, and the inspector's Final Inspection, and requesting the issuance of a certificate authorizing permanent occupancy of the school building with the State Office of Education, the school district is entitled to temporary occupancy of the school building for a period up to 90 days—beginning on the date the request is filed—if the school district has complied with all applicable fire and life safety code requirements.

Upon the school district remedying any inspection deficiencies and notifying the State Superintendent, or designee, that the deficiencies have been remedied, following certification of the information, the State Superintendent will issue a certificate authorizing permanent occupancy of the school building [[Certificate of Occupancy—Form SP-10—State Superintendent](#)] and mail a copy of the certificate to the building official of the local governmental entity in which the school building is located authorizing permanent occupancy of the school building.

The State Superintendent may contract with any appropriately qualified entity or person(s) to provide inspection services that the Superintendent considers necessary to enable the Superintendent to issue a certificate authorizing permanent occupancy of the school district building. The State Superintendent may also charge the school district a fee—not to exceed the actual cost of performing the inspection(s)—for inspection services.

(b) Procedure for School District Using Properly Licensed and Certified School District Building Inspector

(i) Monthly Inspection Summaries

The School District Building Official (SDBO) must provide, on a monthly basis during construction, a copy of each inspection certificate and a monthly inspection summary [[Construction Inspection Summary Report—Form SP-8](#)] regarding the school building to the State Superintendent of Public Instruction and to the appropriate local governmental entity building official where the building is located for each project that exceeds \$99,999 in cost, or the project is federally funded. The SDBO must identify in the monthly summary reports the total number of inspections as well as the name, state license number and disciplines of the state licensed/certified inspectors performing the building inspections. *Notwithstanding any local agreements between municipal and county building authorities and local school districts, all school districts must submit these reports each month, no later than the 15th of the month for the preceding month's activities and provide copies of all of the inspection and*

testing reports. In addition, school districts must keep copies of all individual inspection documents at an identified location in the district for auditing and follow-up purposes. **These reports may be submitted in paper or electronic formats.**

(ii) Final Inspection Certification

After completion of the project, the SDBO shall—upon completion of all required inspections of the school building—complete, sign and file with the State Office of Education and the building inspector of the local jurisdiction in which the building is located, a Certificate of Inspection Verification [[School Building Certificate of Inspection Verification—Form SP-11](#)] and complete and file a [Final Inspection Certification—Form SP-9](#), certifying that all inspections were completed in accordance with the state adopted building code ([UCA 58-56](#)).

(iii) Certificate of Occupancy

A school district may issue its own certificate authorizing permanent occupancy [[Certificate of Occupancy—Form SP-10](#)] of a school building if it uses currently licensed ICC certified building inspectors employed by the school district for inspections of the school buildings. The School District Building Official must mail a copy of the completed certificate to the State Office of Education as well as to the building official of the local governmental entity in which the school building is located authorizing permanent occupancy of the school building.

(c) Procedure for School District Using Properly Licensed and Certified Local Municipal or County Building Inspector

(i) Monthly Inspection Summaries

The School District Building Official (SDBO) must provide, on a monthly basis during construction, a copy of each inspection certificate and a monthly inspection summary [[Construction Inspection Summary Report—Form SP-8](#)] regarding the school building to the State Superintendent of Public Instruction for each project that exceeds \$99,999 in cost, or is funded by federal dollars. The SDBO must identify in the monthly summary reports the total number of inspections as well as the name, state license number and disciplines of the state licensed/certified inspectors performing the building inspections and provide copies of all supporting testing and inspection records. *School districts must submit these reports no later than the 15th of each month for the preceding month's activities.* In addition, school districts must keep copies of all individual inspections at an identified location in the district for auditing and follow-up purposes. **These reports may be submitted in paper or electronic formats.**

(ii) Final Inspection Certification

After completion of the project, the SDBO shall—upon completion of all required inspections of the school building—complete, sign and file with the State Office of Education and the building inspector of the local jurisdiction in which the building is located, a Certificate of Inspection Verification [[School Building Certificate of Inspection Verification—Form SP-11](#)] and complete and file a [Final Inspection Certification—Form SP-9](#), the Certificate of Fire Clearance from the Utah State Fire Marshal's office, and the final inspection from the inspector

of record certifying that all inspections were completed in accordance with the state adopted building code ([UCA 58-56](#)).

(iii) Certificate of Occupancy

School districts which use current properly licensed and ICC certified local municipal or county building inspectors must seek a certificate authorizing permanent occupancy of a school building from the jurisdiction in which the building is located. A copy of the certificate of permanent occupancy must be filed with the State Office of Education.

(2) Charter School Construction Inspection

A charter school may employ one of three methods for school construction inspection

[[Utah Code 53A-20-104](#)] but must be procured, act as an agent of the charter school, and be paid for by the charter school:

- (a) An independent, currently properly licensed and ICC certified building inspector;
- (b) A properly currently licensed and ICC certified building inspector employed by a school district; or
- (c) A properly currently licensed and ICC certified building inspector approved by the local jurisdiction in which the construction activity occurs.

(a) Procedure for Charter Schools Using Independent Properly Licensed and ICC Certified Building Inspector

(i) Monthly Inspection Summaries

The local Charter School Board Building Officer (CSBBO) must provide, on a monthly basis during construction, a copy of each inspection certificate and a monthly inspection summary [[Construction Inspection Summary Report—Form SP-8](#)] regarding the school building to the State Superintendent of Public Instruction and to the appropriate local governmental entity building official where the building is located for each project that exceeds \$99,999 in cost, or is funded using federal dollars. The charter school must identify in the monthly summary reports the total number of inspections as well as the name, state license number and disciplines of the state licensed/certified inspectors performing the building inspections and provide copies of all supporting testing and inspection reports. *Notwithstanding any local agreements between municipal and county building authorities and the charter school, all charter schools must submit these reports each month, no later than the 15th of the month for the preceding month's activities.* In addition, charter schools must keep copies of all individual inspection documents at an identified location at the charter school for auditing and follow-up purposes. These reports may be paper or electronic.

The independent building inspector cannot be an employee of, or hired by, the architect, developer, contractor or any subcontractor on the project, must be approved by the applicable local government or school district building inspector, and must be properly licensed and certified to perform all of the inspections that the inspector is required to perform.

(ii) Final Inspection Certification

After completion of the project, the local Charter School Board Building Officer shall—upon completion of all required inspections of the school building—complete and file with the State Office of Education and the building inspector of the local jurisdiction in which the building is located, Certificate of Inspection Verification [[School Building Certificate of Inspection Verification—Form SP-11](#)], a [Final Inspection Certification—Form SP-9](#), the Certificate of Fire Clearance, and the inspector of record's final inspections certifying that all inspections were completed in accordance with the state adopted building code ([UCA 58-56](#)).

(iii) Certificate of Occupancy

The charter school board must also seek a certificate authorizing permanent occupancy of the school building for all construction projects, from the State Superintendent, or designee. Within 30 days after the charter school board files a request for the issuance of a certificate authorizing permanent occupancy of the school building, the Superintendent, or designee, will either issue to the CSBBO a certificate authorizing permanent occupancy of the school building or deliver a written notice indicating the deficiencies in the charter school's compliance with the inspection findings and mail a copy of the certificate authorizing permanent occupancy or the notice of deficiency to the building official of the local government entity in which the school building is located.

Upon the charter school board's filing of the completed Verification [[School Building Certificate of Inspection Verification—Form SP-11](#)], a [Final Inspection Certification—Form SP-9](#), the Certificate of Fire Clearance, the inspector of record's final inspection forms, all supporting documentation, and requesting the issuance of a certificate authorizing permanent occupancy of the school building with the State Office of Education and the building official of the local governmental entity in which the school building is located, the charter school is entitled to temporary occupancy of the school building for a period up to 90 days—beginning on the date the request is filed—if the charter school has complied with all applicable fire and life safety code requirements.

Upon the CSBBO remedying any inspection deficiencies and notifying the State Superintendent, or designee, that the deficiencies have been remedied, following certification of the information, the State Superintendent will issue a certificate authorizing permanent occupancy of the school building [[Certificate of Occupancy—Form SP-10—State Superintendent](#)] and mail a copy of the certificate to the building official of the local governmental entity in which the school building is located authorizing permanent occupancy of the school building.

The State Superintendent may contract with any appropriately qualified entity or person(s) to provide inspection services that the Superintendent considers necessary to enable the Superintendent to issue a certificate authorizing permanent occupancy of the charter school building. The State Superintendent may also charge the charter school a fee—not to exceed the actual cost of performing the inspection(s)—for inspection services.

(b) Procedure for Charter School Using Properly Licensed and Certified School District Building Inspector

(i) Monthly Inspection Summaries

The local Charter School Board Building Officer (CSBBO) must provide, on a monthly basis during construction, a copy of each inspection certificate and a monthly inspection summary [[Construction Inspection Summary Report—Form SP-8](#)] regarding the school building to the State Superintendent of Public Instruction and to the appropriate local governmental entity building official where the building is located for each project that exceeds \$99,999 in cost, and/or funded using federal dollars. The charter school must identify in the monthly summary reports the total number of inspections as well as the name, state license number and disciplines of the state licensed/certified inspectors performing the building inspections and provide all supporting inspection and testing reports. *Notwithstanding any local agreements between municipal and county building authorities and the charter school, all charter schools must submit these reports each month, no later than the 15th of the month for the preceding month's activities.* In addition, charter schools must keep copies of all individual inspection documents at an identified location at the charter school for auditing and follow-up purposes. **These reports may be paper or electronic.**

(ii) Final Inspection Certification

After completion of the project, the charter school—upon completion of all required inspections of the school building—may seek a Certificate of Occupancy from the School District Building Official of the school district providing the inspection services. If the charter school seeks a certificate of occupancy from the School District Building Official, the SDBO must complete, sign and file with the State Office of Education and the building inspector of the local jurisdiction in which the building is located, a Certificate of Inspection Verification [[School Building Certificate of Inspection Verification—Form SP-11](#)], a [Final Inspection Certification—Form SP-9](#), the Certificate of Fire Clearance from the Utah State Fire Marshal's office, and the inspector of record's final inspection certifying that all inspections were completed in accordance with the state adopted building code ([UCA 58-56](#)), and all supporting documentation.

(iii) Certificate of Occupancy

A certificate authorizing permanent occupancy [[Certificate of Occupancy—Form SP-10](#)] issued by a School District Building Official—with authority to issue the certificate—shall satisfy any municipal or county requirement of an inspection or a certification of occupancy. The School District Building Official must mail a copy of the certificate to the State Office of Education as well as to the building official of the local governmental entity in which the school building is located authorizing permanent occupancy of the school building.

(c) Procedure for Charter School Using Properly Licensed and Certified Local Municipal or County Building Inspector

(i) Monthly Inspection Summaries

The local Charter School Board Building Officer must provide, on a monthly basis during construction, a copy of each inspection certificate and a monthly inspection summary [[Construction Inspection Summary Report—Form SP-8](#)], along with all supporting inspection and testing reports, regarding the school building to the State Superintendent of Public Instruction for each project that

exceeds \$99,999 in cost, and/or is funded using federal dollars. The charter school must identify in the monthly summary reports the total number of inspections as well as the name, state license number and disciplines of the state licensed/certified inspectors performing the building inspections. *Charter schools must submit these reports no later than the 15th of each month for the preceding month's activities.* In addition, charter schools must keep copies of all individual inspections at an identified location at the charter school for auditing and follow-up purposes. **These reports may be submitted in paper or electronic formats.**

(ii) Final Inspection Certification

After completion of the project, the local Charter School Board Building Officer shall—upon completion of all required inspections of the school building—obtain and file with the State Office of Education and the building inspector of the local jurisdiction in which the building is located, a completed Certificate of Inspection Verification [[School Building Certificate of Inspection Verification—Form SP-11](#)], a [Final Inspection Certification—Form SP-9](#), the Certificate of Fire Clearance from the Utah State Fire Marshal's office, and the final inspection from the inspector of record certifying that all inspections were completed in accordance with the state adopted building code ([UCA 58-56](#)).

(iii) Certificate of Occupancy

Charter schools which use properly licensed and certified local municipal or county building inspectors must seek a certificate authorizing permanent occupancy of a school building from the jurisdiction in which the building is located. A copy of the certificate of permanent occupancy must be filed with the State Office of Education.

A municipality or county may subject a charter school to standards within each zone pertaining to setback, height, bulk and massing regulations, off-site parking, curb cut, traffic circulation, geological or environment hazard and construction staging but cannot violate federal, state, or local codes, rules, and guidelines. The standards to which a municipality or county may subject a charter school must be objective standards and may not be subjective to the municipality or county.

(3) School Districts—Surplus Property

School districts are required to comply with state law when they choose to purchase, or are involved in the resale of, surplus property. In addition, LEAs are allowed certain rights when it comes to purchasing certain types of surplus property. Utah Code (law) [53A-2-403 & 404—Surplus Property](#) outlines the requirements for this, as copied below:

(a) The Requirements of Purchasing Surplus Property

53A-2-403. Purchase of surplus property.

- (1) An eligible entity may purchase, and each school district shall sell, surplus property as provided in this section.
- (2) (a) Upon declaring land to be surplus property, each school district shall give written notice to each eligible entity in which the surplus property is located.
(b) Each notice under Subsection (2)(a) shall:
 - (i) state that the school district has declared the land to be surplus property; and
 - (ii) describe the surplus property.
- (3) Subject to Subsection (4), an eligible entity may purchase the surplus property by

paying the school district the purchase price.

(4) (a) The legislative body of each eligible entity desiring to purchase surplus property under this section shall:

(i) within 90 days after the eligible entity receives notice under Subsection (2), adopt a resolution declaring the intent to purchase the surplus property and deliver a copy of the resolution to the school district; and

(ii) within 90 days after delivering a copy of the resolution under Subsection (4)(a)(i) to the school district, deliver to the school district an earnest money offer to purchase the surplus property at the purchase price.

(b) If an eligible entity fails to comply with either of the requirements under Subsection (4)(a) within the applicable time period, the eligible entity forfeits the right to purchase the surplus property.

(5) (a) An eligible entity may waive its right to purchase surplus property under this part by submitting a written waiver to the school district.

(b) If an eligible entity submits a waiver under Subsection (5)(a), the school district has no further obligation under this part to sell the surplus property to the eligible entity.

(6) Surplus property acquired by an eligible entity may not be used for any purpose other than:

(a) a county, city, or town hall;

(b) a park or other open space;

(c) a cultural center or community center;

(d) a facility for the promotion, creation, or retention of public or private jobs within the state through planning, design, development, construction, rehabilitation, business relocation, or any combination of these, within a county, city, or town;

(e) office, industrial, manufacturing, warehousing, distribution, parking, or other public or private facilities, or other improvements that benefit the state or a county, city, or town; or

(f) a facility for a charter school under Chapter 1a, Part 5, The Utah Charter Schools Act.

(7) (a) A school district that sells surplus property under this part may use proceeds from the sale only for bond debt reduction or school district capital facilities.

(b) Each school district that sells surplus property under this part shall place all proceeds from the sale that are not used for bond debt reduction in a capital facilities fund of the school district for use for school district capital facilities.

(b) The Requirements of Resale of Surplus Property

53A-2-404. Resale of surplus property.

(1) If an eligible entity that has acquired surplus property under Section [53A-2-403](#) afterwards declares that property to be surplus, the school district from which the eligible entity acquired the property may purchase, and the eligible entity shall sell, the property as provided in Section [53A-2-403](#), except that the price at which the school district shall be entitled to reacquire the property shall be the price that the eligible entity paid for the property, plus the cost of any existing improvements that the eligible entity made to the property after it purchased the property.

(2) If the school district does not reacquire the surplus property under Subsection (1) and the eligible entity sells the surplus property to another buyer, the eligible entity and the school district shall equally share any proceeds of that sale that exceed the amount the eligible entity paid for the property plus the cost of any existing improvements the eligible entity made to the property after it purchased the property.

(4) School Construction Limitations of Municipalities and Counties

(a) IMPACT FEES

Local education agencies (LEAs) can be required to pay impact fees. It is best to understand allowable impact fees and involve legal counsel, as necessary, to ensure only applicable fees are incurred.

Before a political subdivision (municipality or county) or private entity can impose impact fees they have to prepare an Impact Fee Facilities Plan (11-36a-301) (this is often referred to as a Capital Facilities Plan, but can be a fee that meets the definition of impact fee under Section 11-36a-102, which is still subject to chapter 11-36a-204, regardless of the term the local political subdivision or private entity uses to refer to the fee) or the General Plan for political subdivisions having a population or serving a population of less than 5,000, as of the last federal census, containing the elements outlined in 11-36a-302. Even entities using General Plans must ensure that impact fees imposed are based upon a reasonable plan and proper notice is given to those being charged impacts.

There are situations in which school districts and/or charter schools may be able to negotiate lower impact fees or eliminate them altogether, such as:

- Agreements entered into, in which the local jurisdiction has use of the school facility athletic fields, gymnasiums, auditoriums, common spaces for community use, etc., in exchange for impact fees charter schools or school districts would be required to pay.
- Agreements reached in which the standard cost for run-off into storm systems is reduced, relative to generally larger soft scapes (fields and landscapes) found at school facilities, as opposed to hard scape areas (concrete and paving) found at other similar sized construction facilities having differing occupancies.

[11-36a-102. Definitions.](#)

(8)(a) "Impact fee" means a payment of money imposed upon new development activity as a condition of development approval to mitigate the impact of the new development on public infrastructure. (**Excluded from the definition** of impact fees: Hook-up fees, inspection fees, service fees, and other permit or application fees.)

(3) "Development activity" means any construction or expansion of a building, structure, or use, any change in use of a building or structure, or any changes in the use of land that creates additional demand and need for public facilities.

(7) "Hookup fee" means a fee for the installation and inspection of any pipe, line, meter, or appurtenance to connect to a gas, water, sewer, storm water, power, or other utility system of a municipality, county, local district, special service district, or private entity.

(11) (a) "Local political subdivision" means a county, a municipality, a local district under Title 17B, Limited Purpose Local Government Entities—Local Districts, or a special service district under Title 17D, Chapter 1, Special Service District Act.

(b) "Local political subdivision" does not mean a school district, whose impact fee activity is governed by Section [53A-20-100.5](#).

[10-9a-305. Other entities required to conform to municipality's land use ordinances—Exceptions—School districts and charter schools—Submission of development plan and schedule.](#)

Summary of 10-9a-305 – A municipality:

- **May NOT** impose requirements for landscaping, fencing, aesthetic considerations, municipal building codes, or use of temporary classroom facilities.
- **May NOT** require school to participate in the cost of any roadway or sidewalk, **UNLESS** reasonably necessary for the safety of the children or to connect to existing rights of way.
- **May NOT** require the school to pay for municipal building inspectors.
- **MAY** require a school to pay impact fees imposed by the Impact Fees Act.

[2009 Legislation – HB 259](#)

Schools can be exempted from being imposed impact fees if the local government affirmatively says so in its ordinance.

If you don't want to pay impact fees you need to lobby your state and local government officials to change the local and/or state law.

(b) SCHOOL IMPACT FEES

[53A-20-100.5. Prohibition of school impact fees.](#)

(1) As used in this section, "school impact fee" means a charge on new development in order to generate revenue for funding or recouping the costs of capital improvements for schools or school facility expansions necessitated by and attributable to the new development.

- An impact fee may be charged to a public entity building project (such as the federal government, any state agency, a county, municipality, school district, local district, special service district, or charter school) but only for certain purposes:
 - Water rights and water supply, treatment, and distribution facilities.
 - Waste water collection and treatment facilities.
 - Storm water, drainage, and flood control facilities.
 - Municipal power facilities.
 - Roadway facilities.
 - Public safety facilities.
- A public agency is entitled to credit against impact fees for system improvements "required of or provided by the development, just as any other developer would be."
 - Off-sets and credits
 - In lieu of dedications and improvements
 - Paybacks

– General revenues

- A replacement school project may **only** be assessed impact fees if the new facility imposes more burdens on public facilities than the old school facility (including any portable or modular classrooms) did, if both the new and old facilities are served by the same public facilities.
- An impact fee enactment that provides an impact fee exemption for development activity attributable to a school district or charter school shall allow either a school district or a charter school to qualify for the exemption on the same basis.
- Facilities built by the state may not be charged impact fees to cover the costs of road facilities funded by the state or federal government.
- Upon written request, an entity charging impact fees, must include any system improvements that would be installed by the school district, in their capital facilities plan.

No Delay – The construction of a school or charter school **may not** be delayed because of a dispute over impact fees.

Limitation on Expenditure Funds – An entity charging an impact fee is limited to a six (6) year period of time in which it must expend the funds collected or return them to the developer.

If a school district or charter school (or any person or an entity residing in or owning property within a services area) does not agree with an impact fee they have a standing to file a declaratory judgment action challenging the validity of an impact fee (11-36a-701). And, the political subdivision or private entity in question has two weeks to provide the impact fee analysis, the impact fee facilities plan, and any other relevant information relating to the impact fee.

Quite often school facilities are constructed in areas not fully developed. This may require incurring the full cost of improvements and impact fees. In cases such as this, opportunities to recoup the costs previously incurred, as other parcels affected by the impact fee are developed should be pursued.

To ensure impact fees are properly accounted for, the local subdivision that collects an impact fee shall:

- (1) establish a separate interest bearing ledger account for each type of public facility for which an impact fee is collected;
- (2) deposit a receipt for an impact fee in the appropriate ledger account established under Subsection (1);
- (3) retain the interest earned on each fund or ledger account in the fund or ledger account;
- (4) at the end of each fiscal year, prepare a report on each fund or ledger account showing:
 - (a) the source and amount of all money collected, earned, and received by the fund or ledger account; and
 - (b) each expenditure from the fund or ledger account; and
- (5) produce a report that:

- (a) identifies impact fee funds by the year in which they were received, the project from which the funds were collected, the impact fee projects for which the funds were budgeted, and the projected schedule for expenditure;
- (b) is in a format developed by the state auditor;
- (c) is certified by the local political subdivision's chief financial officer; and
- (d) is transmitted annually to the state auditor.

Because potentially large fees are encumbered for impact fees, it is recommended that some sort of tracking system, which can be a reminder to obtain reimbursements of impact fees and/or checks to ensure that impact fees are only encumbered within the allowable timeline, be implemented.

11-36a-305. Calculating impact fees.

- (1) In calculating an impact fee, a local political subdivision or private entity may include:
 - (a) the construction contract price;
 - (b) the cost of acquiring land, improvements, materials, and fixtures;
 - (c) the cost for planning, surveying, and engineering fees for services provided for and directly related to the construction of the system improvements; and
 - (d) for a political subdivision, debt service charges, if the political subdivision might use impact fees as a revenue stream to pay the principal and interest on bonds, notes, or other obligations issued to finance the costs of the system improvements.
- (2) In calculating an impact fee, each local political subdivision or private entity shall base amounts calculated under Subsection (1) on realistic estimates, and the assumptions underlying those estimates shall be disclosed in the impact fee analysis.

QUESTIONS TO ASK:

1. What impact fees are being charged?
2. What other fees are being charged?
3. Is this a new facility or simply a replacement or renovation of an existing facility?
4. What improvements and dedications are being asked for?
5. Is there any oversizing being required?
6. Is each improvement or dedication a project or system improvement?
7. Is the project listed in the local government's impact fee plan?
8. Are the "System Improvements" listed in the local government's impact fee plan?
9. Do any of the improvements have a value to the local government other than as a system improvement?
10. How has the local government charged impact fees to other schools and charter schools?

(c) CONDITIONAL USE PERMITS

What Is a Conditional Use Permit?

A conditional use permit (CUP) allows a city or county to consider special uses which may be essential or desirable to a particular community, but are not allowed as a matter of right within a zoning district, through a public hearing process. Conditional use permits are designed to allow flexibility in zoning laws

as those cannot be expected to account for every situation. For instance, exceptions such as conditional use permits provide a zoning authority the opportunity to allow uses that would improve a neighborhood to exist in a zone where they are otherwise prohibited does not benefit anyone. Commonly, conditional use permits are granted to add commercial, education, or religious services to residential zones. Churches, schools, and small or home-based businesses in residential neighborhoods are all products of conditional use permits that allow exceptions to the zoning law. Another traditional purpose of the conditional use permit is to enable a municipality to control certain uses which could have detrimental effects on the community.

Examples of common uses allowed with conditional use permit can be found in any city or county zoning ordinance. For example, City A's zoning ordinance lists uses which may be permitted within single-family residential districts with a conditional use permit. These uses include churches, public or private schools, public building or utility structures, parking lots, temporary subdivision sales offices, and community care and health care facilities. City B's zoning ordinance also lists various uses permitted with a use permit issued by either a planning director or planning commission. These uses include temporary amusement attractions, the placement of a building or structure on a lot or parcel which has been moved from another lot or parcel, public buildings and facilities, parking or access located off-site from the site being served, private recreation centers, and planned developments. Note: City B does not include public schools in its zoning ordinance list. Because of this, parties intending to construct a public school facility in City B would be required to obtain a conditional use permit in this zoning area.

Consideration of a CUP is a discretionary act. A CUP application tendered by a project proponent is considered at a public hearing and, if approved, is generally subject to a number of pertinent conditions of approval. Depending on local ordinance requirements, hearings are typically held by a board of zoning, the planning commission, or a zoning administrator. The owners of property near the site are sent advance notice of the date, time, and place of the hearing to allow them the opportunity to respond.

17-27a-103 County Land Use, Development, and Management Act—
Definitions (Note: similar language is reflected in Utah Code 10-9a Municipal Land Use, Development, and Management Act relative to municipalities.) (emphasis added)

(1) "Affected entity" means a county, municipality, local district, special service district under Title 17D, Chapter 1, Special Service District Act, school district, interlocal cooperation entity established under Title 11, Chapter 13, Interlocal Cooperation Act, specified property owner, property owners association, public utility, or the Utah Department of Transportation, if:

- (a) the entity's services or facilities are likely to require expansion or significant modification because of an intended use of land;
- (b) the entity has filed with the county a copy of the entity's general or long-range plan; or
- (c) the entity has filed with the county a request for notice during the same calendar year and before the county provides notice to an affected entity in compliance with a requirement imposed under this chapter.

- (4) (a) "Charter school" means:
- (i) an operating charter school;

- (ii) a charter school applicant that has its application approved by a chartering entity in accordance with Title 53A, Chapter 1a, Part 5, The Utah Charter Schools Act; or
- (iii) an entity who is working on behalf of a charter school or approved charter applicant to develop or construct a charter school building.

(6) "**Conditional use**" means a land use that, because of its unique characteristics or potential impact on the county, surrounding neighbors, or adjacent land uses, may not be compatible in some areas or may be compatible only if certain conditions are required that mitigate or eliminate the detrimental impacts.

(11) "Educational facility":

(a) means:

- (i) a school district's building at which pupils assemble to receive instruction in a program for any combination of grades from preschool through grade 12, including kindergarten and a program for children with disabilities;
- (ii) a structure or facility:
 - (A) located on the same property as a building described in Subsection (11)(a)(i); and
 - (B) used in support of the use of that building; and
- (iii) a building to provide office and related space to a school district's administrative personnel; and

(b) does not include:

- (i) land or a structure, including land or a structure for inventory storage, equipment storage, food processing or preparing, vehicle storage or maintenance, or similar use that is:
 - (A) not located on the same property as a building described in Subsection (11)(a)(i); and
 - (B) used in support of the purposes of a building described in Subsection (11)(a)(i); or
- (ii) a therapeutic school.

(52) "specified public agency" means:

- (a) the state;
- (b) a school district; or
- (c) a charter school.

17-27a-506. Conditional uses.

(1) A land use ordinance may include conditional uses and provisions for conditional uses that require compliance with standards set forth in an applicable ordinance.

(2) (a) A conditional use shall be approved if reasonable conditions are proposed, or can be imposed, to mitigate the reasonably anticipated detrimental effects of the proposed use in accordance with applicable standards.

(b) If the reasonably anticipated detrimental effects of a proposed conditional use cannot be substantially mitigated by the proposal or the imposition of reasonable conditions to achieve compliance with applicable standards, the conditional use may be denied.

Are LEAs Required to Obtain Conditional Use Permits?

In situations that a local political subdivision does not have provisions for public schools, and particularly public school construction, conditional use may need to be obtained.

If a conditional use permit is to be approved, all of the following questions must be answered affirmatively.

1. Is the public hearing notice complete in its description of the project?
2. Has the public hearing notice been issued in accordance with all procedures?
3. Is the proposed use, with proposed conditions of approval, suitable for the site?
4. If any conditions of approval call for dedications of land, are they reasonably related to the use and its impacts?
5. If significant environmental effects have been identified as a result of the proposed conditional use permit, have conditions been required, or has the project been redesigned, to mitigate those effects?
6. Have findings been adopted to support the agency's decision, based upon substantial evidence in the record?
7. Are the required environmental findings being adopted?

(d) EXACTIONS – (EXACTIONS = INDIVIDUALIZED REVIEW)

- Legitimate governmental purpose.
- Reasonably related to impact (rational nexus).
- Proportional to the impact caused (roughly equivalent).

The challenge: create through legislation a regime for imposing exactions that would not require an individualized assessment and would put the burden on the developer to create a system that:

- Is more efficient to administer.
- Results in fewer demands (like traffic studies) for the schools.

The solution: Capital Facilities Plans and Impact Fee Schedules

10-9a-508. Exactions -- Exaction for water interest -- Requirement to offer to original owner property acquired by exaction.

(1) A municipality may impose an exaction or exactions on development proposed in a land use application, including, subject to Subsection (2), an exaction for a water interest, if:

(a) an essential link exists between a legitimate governmental interest and each exaction; and

(b) each exaction is roughly proportionate, both in nature and extent, to the impact of the proposed development.

(2) (a) (i) A municipality shall base any exaction for a water interest on the culinary water authority's established calculations of projected water interest requirements.

(ii) Upon an applicant's request, the culinary water authority shall provide the applicant with the basis for the culinary water authority's calculations under Subsection (2)(a)(i) on which an exaction for a water interest is based.

(b) A municipality may not impose an exaction for a water interest if the culinary water authority's existing available water interests exceed the water interests needed to meet the reasonable future water requirement of the public, as determined under Subsection [73-1-4\(2\)\(f\)](#).

(3) (a) If a municipality plans to dispose of surplus real property that was

acquired under this section and has been owned by the municipality for less than 15 years, the municipality shall first offer to reconvey the property, without receiving additional consideration, to the person who granted the property to the municipality.

(b) A person to whom a municipality offers to reconvey property under Subsection (3)(a) has 90 days to accept or reject the municipality's offer.

(c) If a person to whom a municipality offers to reconvey property declines the offer, the municipality may offer the property for sale.

(d) Subsection (3)(a) does not apply to the disposal of property acquired by exaction by a community development and renewal agency.

(e) LAND USE APPLICATIONS

17-27a-508. Applicant's entitlement to land use application approval -- Exceptions -- Application relating to land in a high priority transportation corridor -- County's requirements and limitations -- Vesting upon submission of development plan and schedule.

(1) (a) Except as provided in Subsection (1)(b), an applicant is entitled to approval of a land use application if the application conforms to the requirements of the county's land use maps, zoning map, and applicable land use ordinance in effect when a complete application is submitted and all application fees have been paid, unless:

(i) the land use authority, on the record, finds that a compelling, countervailing public interest would be jeopardized by approving the application; or

(ii) in the manner provided by local ordinance and before the application is submitted, the county has formally initiated proceedings to amend its ordinances in a manner that would prohibit approval of the application as submitted.

(b) (i) Except as provided in Subsection (1)(c), an applicant is not entitled to approval of a land use application until the requirements of this Subsection (1)(b)(i) and Subsection (1)(b)(ii) have been met if the land use application relates to land located within the boundaries of a high priority transportation corridor designated in accordance with Section [72-5-403](#).

(ii) (A) A county shall notify the executive director of the Department of Transportation of any land use applications that relate to land located within the boundaries of a high priority transportation corridor.

(B) The notification under Subsection (1)(b)(ii)(A) shall be in writing and mailed by certified or registered mail to the executive director of the Department of Transportation.

(iii) Except as provided in Subsection (1)(c), a county may not approve a land use application that relates to land located within the boundaries of a high priority transportation corridor until:

(A) 30 days after the notification under Subsection (1)(b)(ii)(A) is received by the Department of Transportation if the land use application is for a building permit; or

(B) 45 days after the notification under Subsection (1)(b)(ii)(A) is received by the Department of Transportation if the land use application is for any land use other than a building permit.

(iv) (A) If an application is an application for a subdivision approval, including any land, subject to Subsection (1)(b)(iv)(C), located within 100 feet of the center line of a canal, the land use authority shall:

(I) within 30 days after the day on which the application is filed, notify the canal company or canal operator responsible for the canal, if the canal company or canal owner has provided information under Section [17-27a-211](#); and

(II) wait at least 10 days after the day on which the land use authority notifies a canal company or canal operator under Subsection (1)(b)(iv)(A)(I) to approve or reject the subdivision application described in Subsection (1)(b)(iv)(A).

(B) The notification under Subsection (1)(b)(iv)(A) shall be in writing and mailed by certified or registered mail to the canal company or canal operator contact described in Section [17-27a-211](#).

(C) The location of land described in Subsection (1)(b)(iv)(A) shall be:

(I) provided by a canal company or canal operator to the land use authority; and

(II) (Aa) determined by use of mapping-grade global positioning satellite units; or (Bb) digitized from the most recent aerial photo available to the canal company or canal operator.

(c) (i) A land use application is exempt from the requirements of Subsection (1)(b)(i) if:

(A) the land use application relates to land that was the subject of a previous land use application; and

(B) the previous land use application described under Subsection (1)(c)(i)(A) complied with the requirements of Subsections (1)(b)(i) and (ii).

(ii) A county may approve a land use application without making the required notifications under Subsections (1)(b)(i) and (ii) if:

(A) the land use application relates to land that was the subject of a previous land use application; and

(B) the previous land use application described under Subsection (1)(c)(ii)(A) complied with the requirements of Subsections (1)(b)(i) and (ii).

(d) After a county has complied with the requirements of Subsection (1)(b) for a land use application, the county may not withhold approval of the land use application for which the applicant is otherwise entitled under Subsection (1)(a).

(e) The county shall process an application without regard to proceedings initiated to amend the county's ordinances as provided in Subsection (1)(a)(ii) if:

(i) 180 days have passed since the proceedings were initiated; and

(ii) the proceedings have not resulted in an enactment that prohibits approval of the application as submitted.

(f) An application for a land use approval is considered submitted and complete when the application is provided in a form that complies with the requirements of applicable ordinances and all applicable fees have been paid.

(g) The continuing validity of an approval of a land use application is conditioned upon the applicant proceeding after approval to implement the approval with reasonable diligence.

(h) A county may not impose on an applicant who has submitted a complete application for preliminary subdivision approval a requirement that is not expressed:

(i) in this chapter;

- (ii) in a county ordinance; or
 - (iii) in a county specification for public improvements applicable to a subdivision or development that is in effect on the date that the applicant submits an application.
- (i) A county may not impose on a holder of an issued land use permit or a final, unexpired subdivision plat a requirement that is not expressed:
- (i) in a land use permit;
 - (ii) on the subdivision plat;
 - (iii) in a document on which the land use permit or subdivision plat is based;
 - (iv) in the written record evidencing approval of the land use permit or subdivision plat;
 - (v) in this chapter; or
 - (vi) in a county ordinance.
- (j) A county **may not** withhold issuance of a certificate of occupancy or acceptance of subdivision improvements because of an applicant's failure to comply with a requirement that is not expressed:
- (i) in the building permit or subdivision plat, documents on which the building permit or subdivision plat is based, or the written record evidencing approval of the building permit or subdivision plat; or
 - (ii) in this chapter or the county's ordinances.
- (2) A county is bound by the terms and standards of applicable land use ordinances and shall comply with mandatory provisions of those ordinances.
- (3) A county **may not**, as a condition of land use application approval, require a person filing a land use application to obtain documentation regarding a **school district's** willingness, capacity, or ability to serve the development proposed in the land use application.
- (4) Upon a specified public agency's submission of a development plan and schedule as required in Subsection [17-27a-305](#)(9) that complies with the requirements of that subsection, the specified public agency vests in the county's applicable land use maps, zoning map, hookup fees, impact fees, other applicable development fees, and land use ordinances in effect on the date of submission.

Education Facility:

- Used for instruction of pupils
- A structure on the same property used to support that use
- Offices for school administration but not land or structures for inventory storage, equipment storage, food processing or preparing, vehicle storage or maintenance, or similar use

Non-“Educational Facility” School Use or Structure:

Non-educational facility school use is subject to zoning requirements only as imposed on similar uses.

It is not permissible to use “tax exempt” status as reason for prohibiting or regulating land use or location.

SUMMARY

- Cities and Counties may impose exactions (individualized review) and impact fees (generalized regime) on schools in certain situations.
- With a little work you can understand what your exactions/impact fees will be.
- Exactions are easier to attack than impact fees, but regardless, there may be room for negotiation.
- If you have any questions, call an attorney with experience in impact fees as they relate to schools – you could save thousands of dollars.

A municipality or county **may not** require school districts or charter schools to landscape, fence, make aesthetic improvements, use specific construction methods or materials, impose requirements for buildings used only for educational purposes, or place limitations prohibiting the use of portable/relocatable classroom facilities on school property [[Utah Code Section 10-9a-305](#)] and [[Utah Code Section 17-27a-305](#)]. All portable/relocatable classroom facilities must be properly inspected to meet the state-adopted building code ([UCA 58-56](#)) and all other applicable requirements.

Municipalities and counties **may not** require a school district or charter school to participate in the cost of a roadway or sidewalk, or a study of the impact of a school on a roadway or sidewalk, that is **not reasonably necessary for the safety of school children and not located on or contiguous to school property, unless the roadway or sidewalk is required to connect an otherwise isolated public school or an existing roadway**; see [[Utah Code Section 10-9a-305](#)] and [[Utah Code Section 17-27a-305](#)].

In addition, a municipality or county **may not** require a school district or charter school to pay fees not authorized under [Utah Code Section 10-9a-305](#) [**Other entities required to conform to municipality's land use ordinances-- Exceptions--School districts and charter schools**] or [Utah Code Section 17-27a-305](#) [**Other entities required to conform to county's land use ordinances-- Exceptions--School districts and charter schools**].

Municipalities and counties **may not** require inspection of school construction or assess a fee or other charges for inspection, **unless** the school district or charter school is unable to provide for inspection by properly licensed and certified inspectors, other than the project architect, developer, contractor or subcontractors.

In addition, municipalities and counties **may not** require LEAs to pay any impact fee for an improvement project that is not reasonably related to the impact of the new school project upon the need that the improvement is to address.

A municipality or county **may not** impose regulations upon the location of a school district or charter school project except as necessary to avoid unreasonable risks to health or safety of students.

A municipality or county **may**, at its discretion, schedule a time with the school district or charter school officials to provide a walk-through of school construction at no cost and at a time convenient to the school district or charter school and provide recommendations based on the walk-through.

c. Responsibilities

All construction or renovation of buildings which a school district or charter school is responsible for and for which the school district or charter school authorizes work shall be subject to inspection by or under the administrative and direct operational control of the local School District Building Official (SDBO) or the local Charter School Board Building Officer (CSBBO). All such construction work shall remain accessible and exposed for inspection purposes until approved by a building inspector currently and appropriately state licensed and ICC certified under provisions of the state-adopted building code ([UCA 58-56](#)) in the trade the inspection and/or test is required. In addition, certain continuous inspections, special inspections, as well as structural tests and inspections, are required as indicated in the [Plan Development](#) section of this manual.

(1) Inspection Records

No construction or renovation work shall be commenced until the school district or charter school has posted or otherwise made available an inspection record form such as to allow the building inspector to conveniently make the required entries regarding inspection of the work. This form shall be maintained and made available by the school district or charter school until final approval has been granted.

The School District Building Official (SDBO) or local Charter School Board Building Officer (CSBBO) is responsible for ensuring all inspections are performed by currently and appropriately ICC certified Utah licensed inspectors. The SDBO and CSBBO is responsible to visit the state Division of Occupational and Professional Licensing (DOPL) website and the International Code Council website, as applicable, to verify that the inspector performing the inspection is licensed in the state of Utah. To check through the state DOPL web site, go to [Utah State Division of Occupational and Professional Licensing](#); then to "Licensing"; then to "Verify a License"; select "Building Inspector"; verify the license type by searching by license number to get more detail. Then the SDBO and CSBBO should visit the ICC website [[International Code Council](#)]; go to "Certification and Testing," then to "Search for an ICC Certified Code Professional" to see what disciplines and areas the inspector is qualified to inspect. In general, the least amount of information supplied for each search provides the best results; usually it is best to enter just the State and the last name of the inspector.

(2) Inspection Requests

It shall be the duty of the person doing the work authorized by the school district or charter school to notify the School District Building Official (SDBO) or the or local Charter School Board Building Officer (CSBBO) that such work is ready for inspection. The SDBO or the CSBBO may require that every request for inspection be filed a minimum of one working day before such inspection is desired. Such request may be in writing, facsimile transmission, electronic mail transmission, or by telephone at the option of the SDBO or CSBBO.

It shall be the duty of the person requesting any inspections required by the state adopted building code ([UCA 58-56](#)) to provide access to and means for inspection of such work.

(3) Approval Required

Work shall **not** be done beyond the point indicated in each successive inspection without first obtaining the approval of the building inspector. The inspector, upon notification, shall make the requested inspections and shall either indicate that the inspected portion of the construction is satisfactory as completed, or shall notify the School District Building Official (SDBO) or local Charter School Board Building Officer (CSBBO) that the inspected portion fails to meet the standards of the state-adopted building code ([UCA 58-56](#)). Any portions that **do not** meet the standards shall be corrected and such portion **shall not** be covered or concealed until re-inspected and approved by the inspector.

The state-adopted building code requires that there be a final inspection and approval of all buildings and structures when completed and ready for occupancy and use for all construction projects, including all those not required to be reported to the Utah State Office of Education.

3. School Facility Site Selection and Development

Revised June 2012

The school is an integral and inseparable part of a neighborhood or community. The selection and development of an appropriate school site should first consider local education agency (LEA) population projections and potential school growth scenarios, then proceed with coordination efforts between the LEA and the local [municipality](#) and/or [county](#), the [local health department](#), the [Utah Department of Transportation](#), and local utility providers such as [Rocky Mountain Power](#), [Questar Gas](#), and [CenturyLink \(formerly Qwest Communications\)](#). Other site considerations should include complete geologic hazards and soils report, as well as a Level One Environmental Impact Statement for potential sites [[U.S. Environmental Protection Agency](#); [Utah Department of Environmental Quality](#); [Utah Geological Survey](#)]. A properly located and developed school site can be an aesthetic, functional asset to a community for a great number of years. The purpose of this section is to stimulate the best possible selection of school sites in view of present and future LEA needs.

a. Long-Term Planning

As the population of the state continues to grow, the need for educational services and facilities generally also increases in proportion. Some LEAs in Utah are experiencing accelerated growth spurts, others have regular steady growth, and a few are experiencing a slight decline. Three basic problems are sometimes accentuated in areas of high growth: (1) the competition for acquisition of undeveloped land increases; (2) capital outlay for new service facilities may cause an increase in capital outlay, voted capital and/or debt service property tax rates for school districts; and (3) the initial costs to open and operate new schools for the first one to three years can strain a school district or charter school's maintenance and operations budget. These three problems provide an incentive for proper long-term planning that involves the school district or charter school, municipal, county, utility and transportation planners of school sites, facilities and services.

The local board of education and school district or charter school administration are responsible for the selection of school facility sites, preferably well ahead of actual needs. When a school facility site will be needed and where it should be located can often be determined with reasonable accuracy by checking indicators such as population trends, commercial development, residential construction and construction permits. Additionally, some school districts purchase land as an investment to hedge against future price increases, whether or not the land is actually used for an educational facility.

The best possible enrollment estimates need to be projected for the number of students to be served in the school district or charter school. Many sources of data may be used for enrollment projections:

- [State Office of Education](#)



- Local [telephone](#), [power](#) and [fuel](#) supply company studies which project population and service supply needs
- [Regional](#), [county](#), [municipal](#) and community master plans.
- [Utah's Association of Realtors](#) population and land value histories and projections
- Local redevelopment/urban renewal agency residential and commercial development volume and timing
- Utah Community Development and Renewal (formerly RDA) Agencies—for example:
 - ▶ [Draper City RDA](#)
 - ▶ [Murray City RDA](#)
 - ▶ [Ogden City RDA](#)
 - ▶ [Provo City RDA](#)
 - ▶ [Layton City RDA](#)
 - ▶ [Holladay City RDA](#)
 - ▶ [Salt Lake City RDA](#)
 - ▶ [Tooele City RDA](#)
 - ▶ [Centerville City RDA](#)
 - ▶ [Economic Development Corporation of Utah](#)

b. Size and Location

Although increasing rapidly in cost, land is still one of the least expensive education resources provided for schools. The quantity of land needed for a school facility will vary according to specific local needs, such as the number and ages of pupils, the type of building to be constructed, and the multiple uses of the site for such things as community recreational functions. The size of a school site also depends on the shape, contour, general suitability, and availability of land in the area where the building is to be located. If transportation is readily available, the size of a site is more important than location. Inadequate site size is a major factor in the obsolescence of educational facilities.

The State Office of Education suggests the following site sizes for the various grade levels shown:

- K-6 school—10 acres plus one acre for each 100 students
- Middle school—20 acres plus one acre for each 100 students
- Junior high school—20 acres plus one acre for each 100 students
- Senior high school—30 acres plus one acre for each 100 students
- Combined 7-12 high school—30 acres plus one acre for each 100 students

A functional and beautiful site is an asset that will influence the total school setting and will be reflected in numerous ways in the attitude and education of schoolchildren. The convenient location of a school within its enrollment boundaries is certainly desirable. There are, however, other factors which must be evaluated in making the final selection of a site. The following factors need to be carefully analyzed in making final determinations in the site selection process:

(1) General Soil Conditions

Geodetic and soil survey maps are available from county offices and the [State Geological Survey](#) to determine such things as seismic conditions and ratings, land contours, drainage, and other soil conditions and ratings. The topography of the site should permit the drainage of surface waters from the grounds without creating a nuisance during inclement weather, thawing periods, lawn sprinkling, or irrigation. The school site must not be located in an area where there is a history or high possibility of flooding, high ground water, or snow or earth slides, or directly on an earthquake fault, or an area that was a repository for hazardous substances. Test pits should be dug to determine the general characteristics of the soil table and drainage of a potential school site before it is purchased by the school district or charter school. The subsoil must be a type that will provide a proper base for building foundations. Surface soils should be the kind that will make play field preparation and maintenance economical and efficient. Please see Subsection (d.), "[Geologic Hazards and Soils Report](#)," in Section 3 of this manual.

(2) Site and Surroundings

Maps and aerial photographs should be used to gain a better understanding of the relationship of the sites being considered to the surrounding environments. Aerial photographs may show, for example, that a potential school site is safely accessible to children. The school district or charter school may also consider investing in a Level One Environmental Impact Statement, which provides decision-makers with a comprehensive report regarding the prior uses of the land and surrounding areas. Please see Subsection (e.), "[Environmental Impact Statement \(Level 1\)](#)," in Section 3 of this manual.

(3) Community Use

Municipal and county planning officials must be consulted to review their recommendations for school site locations which best match municipal and county land use, planning and zoning ordinances, as well as enhance community recreation facilities and services. See State Board of Education Administrative Rule R277-471 [Oversight of School Inspections](#), Utah Code sections 10-9a-305 [Municipal Land Use and Development](#), 17-27a-305 [County Land Use and Development](#), and 53A-20-104 [School Construction](#), as well as [School District Building Official Charter School Board Building Officer and School Construction Inspection](#) elsewhere in this School Construction Inspection Resource Manual.

A school site which is developed in close cooperation with community officials can be an excellent asset for multiple uses. Development of a community park center in conjunction with a school plant is one of the most economical means of accomplishing such a task. These types of developments can range from limited use by neighboring children to large athletic centers and park facilities. Please see Section (g.), "[New Construction Coordination](#)," in Section 3 of this manual.

(4) Hazards

Hazardous conditions and installations in the vicinity of, or as part of, school sites must be avoided. Dangerous physical hazards exist in many forms, including junkyards, ponds, sewer plants, canals, railroads, freeways, and highways, as well as electric or natural gas substations. Potentially dangerous conditions like these naturally attract children because of their curiosity. Airfields, fire stations, stores, taverns, sexually oriented businesses, mills, factories and other industrial areas sometimes become undesirable distractions or serious menaces to the safety and well-being of children. Dangerous highway conditions, such as high traffic density, high vehicle speed, oversize or large vehicles, poor visibility of pedestrians by drivers or poor visibility of vehicles by pedestrians, steep topography, and poor access to the roadway and high pedestrian traffic should be considered very carefully when site selection is in process. See [R392-200-2](#) "Design, Construction, Operation, Sanitation and Safety of Schools-Site Selection."

(5) Health and Safety

The potential school site should be located where safe and healthful conditions exist for the building occupants. It is best to avoid sites that are subject to sources of odors, dust, disturbing noise, and other types of air and sound pollution. The water supply must be of adequate volume and pressure and of a safe, sanitary quality and must comply with the requirements of the state [Safe Drinking Water Act](#) and [Administrative Rules](#). Municipal water and sewage connections are the most desirable for a school. Where on-site water supplies or sewage disposal systems are used, health and environmental codes must be strictly followed. Plans and specifications for such water systems must meet state safe drinking water standards and must be submitted to and approved by the [State Department of Environmental Quality](#) prior to construction. All newly installed or modified existing on-site sewage disposal systems must submit plans to the [local health officer](#) having jurisdiction for review and approval prior to construction or modification. Non-potable water supply systems used for irrigation or similar purposes must be operated in a completely separate storage and support system from potable water and must be maintained in compliance with [Section 19-4-112](#) of the Utah Code. In addition, [Administrative Rule 392-200](#), "Design, Construction, Operation, Sanitation, and Safety of Schools," contains several rules regarding school site selection, construction, maintenance as well as health and safety of school facilities.

Education sites have long been used as an integral part of the instructional program. The usual use has been connected with physical education and recreation. Sizes of various game areas should be used for planning and space allocation when selecting a new school site. The natural and biological sciences can also benefit from such amenities as a grove of trees, a safe pond or stream, and rock formations, as well as other parts of an outdoor setting. School officials are cautioned, however, that some outdoor sites can be an attractive nuisance and a liability during off-hours. [State Risk Management](#) notes that injuries to young children who have gained access to these areas occur regularly. There have been drownings due to ponds, canals and streams. There have been injuries to children climbing into trees and coming into contact with overhead electrical power lines. Signage warning of such hazards is an important legal defense measure; however, security of the

premises by appropriate fencing is most important. The public must be protected from such potential hazards.

A variety of other programs, such as mathematics, chemistry, or physics, may be able to use the site teaching-learning experiences as well. Some sites may be suitable for construction of amphitheaters for a school drama department or for community use. Art departments might use the natural formations and background as an outdoor studio. Some schools need onsite ranges for driver education. Such ranges might be integrated into a variety of driving situations as needed.

c. Pupil Transportation Safety Considerations in School Site Selection and Planning

When school sites are being selected, consideration should be given to the safety of the pupils riding school buses. School buses will use the roads in and around the school site and public roadways leading into and from the school area. High density traffic flow near school exits and entrances should be avoided. Proper site selection and plant planning for improved school transportation is extremely important. Specifically, project architects, engineers and school officials should provide the following, when possible:

- Separate, adequate space for school bus loading zones;
- Clearly marked and controlled walkways through school bus zones;
- Traffic flow and parking patterns separate from the boarding zone;
- A separate loading/unloading area for wheelchairs;
- An organized schedule of loading/unloading areas with stops clearly marked; and
- A loading and unloading site free of conditions that require backing of school buses.

LEAs are required to coordinate the siting of new schools with the municipality or county in which the school is to be located to "...avoid or mitigate existing and potential traffic hazards to maximize school safety." See State Board of Education Administrative Rule R277-471 [Oversight of School Inspections](#), Utah Code sections 10-9a-305 [Municipal Land Use and Development](#), 17-27a-305 [County Land Use and Development](#), and 53A-20-104 [School Construction](#), as well as [School District Building Official Charter School Board Building Officer and School Construction Inspection](#) elsewhere in this School Construction Inspection Resource Manual for other references.

(1) Identifying and Avoiding Safety Hazards

It is important that pupil transportation and delivery vehicle traffic considerations be included in the planning and design of new school facilities if safety hazards are to be avoided and costly remodeling minimized. Consideration should be given to the roads or streets on which school buses and other school traffic will travel to and from the school; the flow of traffic to and from loading-unloading areas and parking lots on the school property; and the design of loading-unloading areas to minimize the possibility of pedestrian-vehicle conflicts. Specific considerations and recommendations that should be included in school site selection and school facility planning are listed below.

Sites that would result in high density traffic near school entrances and exits should be avoided. This includes sites near freeway on- and off-ramps, areas of heavy commercial traffic, and roadways on which there is heavy commuter traffic. The local roads servicing the school should have a paved width of at least 30 feet. If loading and unloading areas cannot be provided on the school property, the streets upon which loading and unloading is to be accomplished should have a paved width of at least 40 feet.

If necessary, traffic control devices can be provided to assist school traffic to enter the regular traffic flow. Such devices can be installed only by the appropriate state, county, or city road or street authorities. Requests for such devices can be initiated by school officials.

To accommodate school buses that are eight feet wide and 40 feet long, the roads leading onto the school site from the public access roads must have a turn radius of at least 50 feet and preferably 100 feet. Islands may be used to minimize the width of driveway entrances and exits. Proposed driveway openings should be approved by appropriate state, county, or city road or street authorities. Design and placement of access roads should never require buses to be backed onto the school premises. Wherever possible, the roadways on school property that are used by school buses should be physically separated from those used by parents, pupils, teachers and other school personnel. All school bus traffic on the school property should be considered as a one-way traffic flow, preferably with the service door side of the bus always next to the loading and unloading zone.

Vehicle delivery traffic patterns should not cross the school play areas or pedestrian traffic patterns leading to play areas. Whenever possible, roadways should not completely encircle the school building. Those areas that students must cross to engage in outside activities should be free from vehicular traffic. School roadways should be at least 30 feet wide for one-way traffic and 36 feet wide for two-way traffic. Roads should be wider on all curves. Curves should have at least a 60-foot radius on their inner edges and there should be at least a 50-foot tangent section between reverse curves.

The pavement for school roadways used by school buses should be consistent with the higher axle weights of these vehicles. Pavement design and material standards are available from the Utah Department of Transportation ([UDOT](#)).

It is recommended that curbing and suitable drainage be provided on all school roads utilized by school buses. Curbing should comply with the standards of [UDOT](#).

School roadways and loading areas should be designed to allow emergency vehicle access to the school at all times.

School roadways should be designed to eliminate or minimize sight obstructions. This includes elimination of blind corners, dips and hollows which obstruct the line-of-sight of the vehicle operator using the roadway. In addition, landscaping should not be allowed to obstruct the motorist's view of intersecting roadways or walkways.

The grade of school roadways should be limited to not more than two percent at entrances and exits and not more than five percent elsewhere. Whenever possible, school bus loading and unloading areas should be located on the school premises and off public thoroughfares.

In planning bus loading and unloading areas, consideration should be given to the following:

- The total number of pupils, teachers and other school personnel at the school
- The number of pupils to be transported to and from school on school buses
- The number of buses involved
- The type of schedule (staggered starting and closing times versus single opening and single closing time)
- Extracurricular activities requiring the use of school buses

It is desirable to separate the school bus loading/unloading zone from the parking areas used by students, teachers, and administrators whenever possible. Vehicular traffic to the parking areas should not pass through the loading areas used by buses or across the paths followed by bus riders entering the school building.

Diagonal parking of school buses at loading/unloading zones and parking areas is the most desirable arrangement as it is the safest formation for loading. Bumper-to-bumper positioning is acceptable if plenty of room between buses is available. Whatever arrangement is used, it should not be necessary for a school bus to back up while moving into or away from a loading/unloading zone.

Whenever possible, a separate discharge and pickup point should be established for students being transported by their parents in private vehicles. This area should also be separated from the school bus loading/unloading area. Hazardous conditions are often created by parents haphazardly discharging or picking up students in the area in front of or adjacent to educational facilities. This is particularly true during periods of inclement weather.

School bus loading zones should be located such that students walking to school will not have to cross in front of parked school buses.

Canopies over school bus loading/unloading areas are not considered necessary or feasible except where disabled children are involved. In such cases, the canopy should be high enough to accommodate the tallest school bus.

In cases where severely disabled students are being transported by school bus, consideration should be given to a separate loading/unloading area especially designed for these students. Such an area might include entrance ramps, handrails, etc.

When school buses are parked on school grounds during the day, care should be taken that buses are located and oriented such that their reflective surfaces do not direct undue glare onto students and teachers in their classrooms.

(2) Donated School Sites

In their zeal to save money, boards of education and charter school boards may be tempted to utilize land donated to them for school sites even though the land has several safety hazards, i.e., located near highways with high traffic density,

unsatisfactory terrain, lack of space for off-street loading/unloading zones, etc. In some cases, the cost of eliminating the pupil transportation hazards could exceed the purchase price of a better site. Since it will be necessary to provide for the safety of students for many years to come, it may be more cost effective to purchase a new site rather than use the donated one.

(3) Site Selection Timing

It must also be recognized that the sites upon which new schools are to be constructed are often selected prior to the hiring of an architect. It is therefore imperative that local boards of education, charter school boards, and municipal planning authorities be alerted as to the potential dangers inherent in the selection of a new school site without adequate consideration to transportation safety. Additional assistance in this area can be obtained by contacting the [School Construction Specialist](#), [State Pupil Transportation Specialist](#) or the [Education Specialist for the Minimum School Program and Property Tax](#) at the State Office of Education, the [State Department of Transportation](#), or appropriate local county or city road or street departments.

d. Geologic Hazards and Soils Reports

Although a soils report performed for a site is more extensive, the [Utah Geological Survey \(UGS\)](#) performs school site geologic hazards reviews, which **are optional**. During initial site selection, the UGS can perform a preliminary site screening evaluation prior to design and construction—which would take place preferably before final site selection—to identify any significant geologic hazards that should be considered in deciding if a site is suitable for a school or other district building. This evaluation consists of a literature review of existing geologic information. UGS can provide a “Summary of Geologic Hazards” report, which typically identifies the potential for earthquake ground shaking, surface faulting, tectonic subsidence, liquefaction, slope failure, earthquake-induced flooding, landslides, debris flows, collapsible or expansive soils, erodible soils, non-engineered fill, shallow ground water, flooding from local streams, alluvial fans, lakes, canals or dam failures, and radon gas. Typically, the principal sources used are county natural hazard overlay zone maps. Usually, a field inspection of the proposed site is not necessary, unless there is evidence that a field inspection is needed. The Utah Geological Survey has been asked by the Legislature to charge to help pay for geologic hazards summary reports. Details of the cost for this can be found at the [UGS](#) website.

Results of the UGS preliminary screening are submitted to school district personnel who should use the information to evaluate general site suitability, and then provide the information to the project architect to ensure that geologic hazards are adequately investigated further during the site-specific geotechnical/geologic hazards investigation of the property by the project geologic consultant. These materials also include references and a glossary of geologic hazards terms.

The School District Building Official (SDBO) and Charter School Board Building Officer (CSBBO) must ensure that all new construction projects and sites have a comprehensive, site-specific geologic hazards study completed prior to project programming, scoping, scheduling, and financing. The geologic consultant’s report must address all hazards, including any previously

unrecognized geologic hazards at the site discovered during the site-specific investigation.

If the UGS services will be solicited this should happen as early as possible in the site selection process so information on geologic hazards can be made available to the school district decision-makers for all sites being considered for a proposed school. The school district can then incorporate information about potential geologic hazards as one of the discriminating factors when selecting a final site for purchase. This process ensures that geologic hazards are addressed and incorporated in the site and building design in a timely manner where necessary.

e. Environmental Impact Statement (Level 1)

Where potential construction sites may have a history of use that could affect future uses of the site, School District Building Officials (SDBOs) and Charter School Board Building Officers (CSBBO) may want to consider the development of a Level One Environmental Impact report provided by the school district consulting civil or soils engineer prior to construction. This report typically provides the school district or charter school with a comprehensive report regarding the prior uses of the land and surrounding areas and what chemicals, gases or "slag" deposits may be present as a result of prior uses. The report also looks forward at potential impacts on the land and surrounding area if a school or other school district facility is constructed. The US EPA web site contains information about [environmental impact statements](#).

f. Stormwater Pollution Prevention Plan (SWPPP)

Stormwater runoff from construction sites can cause significant harm to rivers, lakes, and coastal waters. Construction activities that disturb one or more acres of land must be authorized under the National Pollutant Discharge Elimination System ([NPDES](#)) General Permit for Construction Activities. In Utah you must obtain discharge authorization under the State's appropriate Utah Pollutant Discharge Elimination System ([UPDES](#)) construction general permit and use both the permit and this guidance to assist in developing the SWPPP. The entity issuing the permit is generally going to be the health department having jurisdiction over the area the construction project will take place.

A *Stormwater Pollution Prevention Plan* (SWPPP) is required for construction and will help prevent stormwater pollution. A SWPPP is more than just a sediment and erosion control plan. It describes all the construction site operator's activities to prevent stormwater contamination, control sedimentation and erosion, and comply with the requirements of the Clean Water Act. The [EPA Phase II Best Management Practices Specifications for Construction Sites](#) is a helpful aid which provides standard installation instructions and appropriate applications for several erosion and sediment control practices. To assist in ensuring compliance you can use the "[Construction Storm Water Inspection Form](#)" that the Utah Department of Environmental Quality provides for review.

The SWPPP Process:

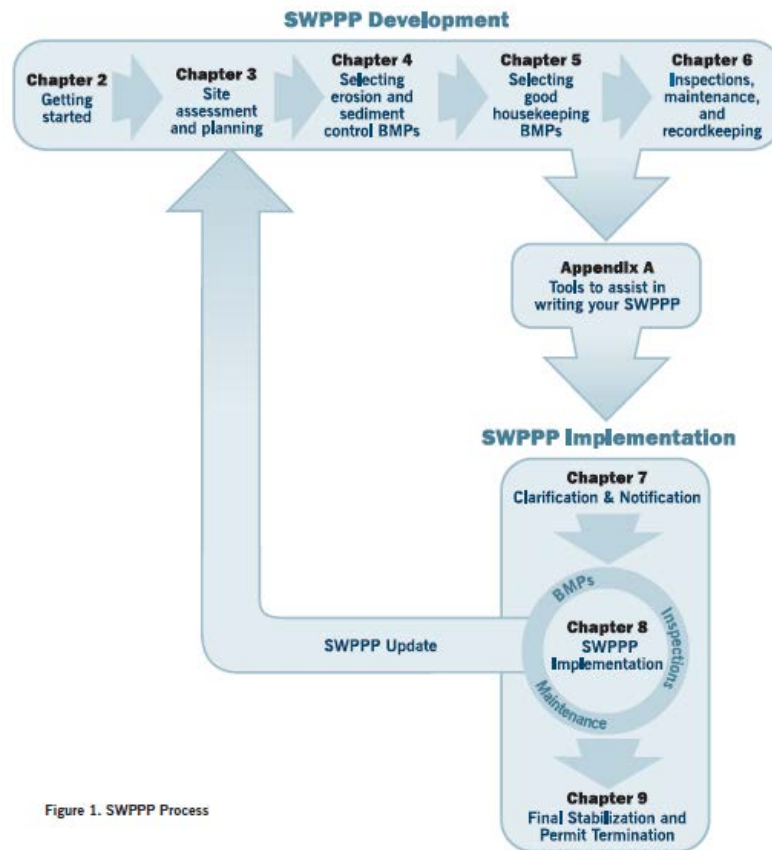


Figure 1. SWPPP Process

To help in developing the narrative section of the construction site SWPPP, the Utah Division of Water Quality (DWQ) has modified the U.S Environmental Protection Agency (EPA) electronic SWPPP template to fit the needs of [NOI](#) applicants in Utah. The template is designed to help guide the user through the SWPPP development process and help ensure the SWPPP addresses all the necessary elements stated in construction general permit.

More details regarding compliance requirements can be found in [Utah Code 19 Environmental Quality – Chapter 5 Water Quality Act](#) and [Administrative Rule R317 Environmental Quality, Water Quality](#). This includes what a Notice of Violation is and the penalties as allowed to be imposed by the State for noncompliance.

It may be helpful to use this template with EPA's guidance on *Developing Your Stormwater Pollution Prevention Plan*, which is available at www.epa.gov/npdes/swpppguide.

A national model has been developed for use by those preparing a storm water pollution prevention plan. It is recommended that those preparing SWPPP's use the [SWPPP model template following the template guidelines](#) or review the elements of the template to ensure that a plan has been prepared in compliance with the State permit. The SWPPP templates cover most of the SWPPP elements that the Utah construction general permit requires; however, customizing this template is strongly encouraged. Two major reasons to customize the template:

- To reflect the terms and conditions of the State construction general permit; and

- To reflect the conditions at a specific site.

A SWPPP may be called many things, which may include terms similar to the following:

- Construction Best Practices Plan
- Sediment and Stormwater Plan
- Erosion, Sediment, and Pollution Prevention Plan
- Construction Site Best Management Practices Plan
- Erosion Control Plan and Best Management Practices
- Best Management Practices Plan
- Erosion and Sediment Control Plan

Regardless of the title used, these documents—and the stormwater permits that require them—tend to have many common elements.

QUESTIONS TO ASK RELATIVE TO AN SWPPP:

(1) What is an SWPPP?

A guide to help you develop a good Stormwater Pollution Prevention Plan (SWPPP).

(2) What construction activities need storm water permits?

Any construction that disturbs one acre of land or more needs either a UPDES Storm Water General Permit for Construction Activities (Permit #UTR300000) or an alternate individual permit. There are a few exceptions:

- Smaller construction activities require permits if they are part of a larger common plan of development. For example, a homebuilder that purchases a lot or lots totaling less than 1 acre ($\frac{1}{4}$ to $\frac{1}{2}$ acre) of disturbed ground within a large development totaling 1 acre or more of total ground requires a permit.
- The **permit** may be waived for small construction sites if construction will be started and finished, meaning paving, re-vegetating, or placing similar erosion controls in place between January 1 and April 30 of the same calendar year (i.e., Low Erosivity Waiver). Reasonable measures to control erosion and sediment must still be used in case runoff occurs during this time period.

(3) What is required in a permit?

A permit is needed **BEFORE** construction starts and must be maintained through final site stabilization which means:

- That all disturbed areas have either been built on, paved, re-vegetated or equivalent
- Permanent, physical post construction erosion controls have been placed. (**Note:** *If a site is re-vegetated, then a cover must be established with a density of at least 70% of pre-disturbance levels to be considered “finally stabilized.” Re-seeding alone does not qualify.*)

(4) Who is responsible to ensure compliance of the SWPPP?

Construction site operators (generally, the person who has operational control over construction plans and/or the person who has day-to-day supervision and control of activities occurring at the construction site). This ultimately falls to the property owner's designee if non-compliance cannot be met.

(5) Who prepares the SWPPP?

This can be anyone involved in the particular construction project, but should be prepared by someone having sufficient knowledge of the requirement of an SWPPP, including all current applicable codes and rules.

(6) Where is an SWPPP required?

At construction sites required to comply with stormwater discharge requirements.

(7) Are LEAs exempt from the requirement to obtain a SWPPP?

No.

g. Site Acquisition and Development

Initial costs for land acquisition should be considered in conjunction with estimated development costs for the site. Considering initial costs alone can be a major problem. It is only when both acquisition and development are carefully considered that a realistic evaluation of the true costs of a proposed site results.

The main developmental costs of a site are related to the topography of the land and the nature of the subsoil. The subsoil characteristics of a site influence the cost of grading and filling. Cost of development is directly proportional to the extensiveness of grading and filling needed to accommodate a school complex. Engineered grading and filling will cost more than non-engineered grading and filling. Building footings, foundations or piling must be designed and built to connect into the natural ground.

The cost of land, even in the same general area, varies greatly. This fact makes comparisons between sites in different school districts or sites within the same school district somewhat misleading. A school district or charter school should assure that the price of a site is reasonable and in line with current market value for the area. Competent real estate appraisers and other persons familiar with the locality should be used as consultants before a site is actually purchased. It is good public practice, if possible, to have at least two potential sites under consideration for each school building. This keeps the school district or charter school from being at the mercy of a seller who is aware of his advantageous possession of the only land considered suitable for a new school.

If the owner of the needed school site property is unwilling to sell at a reasonable price, and the piece of land is the only one that will fit school district needs, the school district may exercise the "right of eminent domain." This type of land condemnation is a legal procedure which may be used by specified public entities to acquire necessary land at a reasonable price. Courts usually require proof that the school district has no other reasonable recourse. After hearing the testimony of competent witnesses, the court will normally set the price to be paid for the land. School districts should secure competent legal advice regarding the advisability and the conduct of condemnation proceedings.

h. New School Construction Coordination

A new school can have a significant impact on a neighborhood or community. It is important for school district facility planners to work early in the process with [county](#), [municipal](#) and town planning officials as well as local [Utah Department](#)

[of Transportation](#) (UDOT) planners and personnel from the entities which will provide the [power](#), water, sewer, and [natural gas](#) or other source of energy for heat, along with USOE notification. Please see an example of new school construction project planning and coordination guide in this [school building construction sample checklist](#). This sheet may be helpful for LEA facility planners to use as they work with municipal, transportation and utility planners.

(1) Coordination with Counties, Cities and Towns

Nearly every political jurisdiction—whether it is a [county](#), [city](#), [town](#), or [village](#)—will normally have some concerns regarding school construction within its boundaries. Possibly the placement of a new school will conflict with an existing local zoning ordinance. Maybe the school placement will have an adverse effect on traffic patterns. The location of the school might interfere with a flood impact drainage plan for the area. It could be that the businesses in the area—both existing and proposed—would be in direct conflict with the operation of a new school. In any case, the first stop should be with whoever is in charge of planning for the jurisdiction. This planning person may be called the community development director, the city or county planner, the engineer, the recorder, or even the building inspector. In some small municipalities, this person may wear many hats.

Because LEA construction can have a significant impact on such things as local truck, automobile and school bus traffic movement patterns, the location of utilities and other infrastructure components supporting schools, and planning and zoning ordinances within a community or neighborhood; prior to developing plans and specifications for a new public school, or the expansion of an existing public school, LEAs **shall coordinate** with affected local governmental land use authorities and utility providers [see [53A-20-108](#) of the Utah Code]. LEAs **must** also ensure that the siting or expansion of a school in the intended location will comply with applicable local government general plans and will not conflict with entitled land uses [see [10-9a-305](#) for municipalities and [17-27a-305](#) for counties, and [10-9a-406](#) of the Utah Code]. In addition, districts and charters **must** ensure that all local government services and utilities required by the school construction activities can be provided in a logical and cost-effective manner and that potential traffic hazards—including consideration of the impacts between the new school and future roadways—are avoided or appropriately mitigated.

Regardless, school district facilities planners should check with whomever assumes responsibility for planning and zoning as early as possible in the siting and planning phase of any new school building—or even the addition to an existing school building. This person should be able to tell LEA officials about all the people, divisions, departments, and agencies which may have concerns regarding the new school building project. This group will review the proposal to uncover any potential conflicts with local ordinances, existing businesses, and the municipality or county master plans or future plans regarding the parcel of land upon which the school district wishes to build.

(2) Coordination with Utah Department of Transportation

It is important that traffic patterns surrounding a new school be compatible with the neighborhood as well as the school itself. Elementary and middle/junior high school vehicular traffic will be very different from that of a high school. School bus movement within the neighborhood must also be

considered. How many buses will there be, and how often will they deliver and pick up students? Where will the delivery and pickup points be? How will school bus traffic flow affect community and business traffic in the area? Are additional semaphores needed? Is a pedestrian bridge over a busy street or highway needed? The municipal or county planning staff will know if the location of the proposed school is a potential problem for [Utah State Department of Transportation \(UDOT\)](#) planning personnel. If it is, municipal or county planners can get school district planners in contact with the appropriate local [UDOT](#) person so that potential problems can be averted or resolved.

(3) Coordination with Utilities Providers

Utilities planning for new school construction must be considered many months, if not years, ahead of actual construction. Some political jurisdictions own some or all of the local utility providers. In any case, LEA facility planners must meet with local utility providers [[Rocky Mountain Power](#); [Questar Gas](#); [CenturyLink \(formerly Qwest Communications\)](#)] concerning the availability, capacity and location of the necessary utility lines. The municipal or county planning staff should also be able to give the names of the contact person for each utility service, even if all utility service is provided by an outside private agency. It may also be necessary to obtain approval for drinking water at new schools from the [State Department of Environmental Quality](#), Division of Drinking Water, 150 North 1950 West, Salt Lake City, Utah 84114, (801) 536-4200.

Utilities can take an extraordinary amount of time to acquire. For that reason, LEA facility planning personnel should start the approval process with the local county, city or town and the local utility service providers at least one year in advance of the anticipated construction start date whenever possible. Good planning and coordination with local agencies will help to ensure a smooth construction schedule and good relations with the local agencies for years to come.

i. School Site Selection Summary

School site selection is a process that should involve parents, public planning agencies—such as cities, towns and counties—and many other individuals and groups. **The general public should be kept continuously informed of the growing needs of the school district or charter school for new school sites which are adequately sized.** Careful evaluation procedures should be followed which will clearly and fully document the reasons for selecting or rejecting a proposed school site acquisition. Finally, if possible, the site needs of the school district or charter school should be planned several years in advance of actual school construction.

4. Plan Development

Revised June 2012

After long-range planning has been completed, criteria and priorities for building needs have been established, a [School District Building Official \(SDBO\)](#) and [Charter School Board Building Officer \(CSBBO\)](#) has been selected and trained, and potential sites have been identified, planning for a specific building can begin. If the new school is to support the educational programs and goals established by the school district or charter school board of education, the determination of the educational plan must precede the architectural plan in the design of a facility. The end product of such specific planning should be a set of education specifications. Thorough planning, resulting in complete and carefully determined specifications, is essential to a functional, cost-effective school facility. [The Council of Educational Facility Planners International \(CEFPI\)](#) is an excellent resource for this. In addition, the process the USOE went through resulting in parameters for each type of school facility used on the [SP-5](#) forms may be helpful.

a. Education Specifications

Education specifications are the written results of the planning phase handed to the architect/engineer to be translated into form and structure. They are the board of education's general statements of the problem which the architect is to solve and, as such, are the school district's or charter school's primary guide to the architect and engineer in the development of building plans and specifications. Many architects and engineers refer to this document as the facility "program." The very nature of such a document makes its formulation the logical responsibility of the educators; however, the foundation components of the education system and programs described in the education specifications, the goals of the programs and student outcomes should be determined by the clients of the school and the public that the school serves within the constraints of statutory and administrative rule.

The format in which education specifications are expressed may vary according to the desires of the planners. Certain general requirements need to be met whatever the format.

(1) Written Education Specifications

The education specifications should be written. Although many conferences and discussions with the architect will be necessary and desirable, written specifications, clearly stated, must be available to the architect for guidance. They reduce the possibility of misunderstanding and can eliminate future disagreements over what specific directions were given.

(2) Format and Language

The education specifications document should be organized and written for the architect in a format and language that is understandable and precise. The architect can only respond to the specifications as he or she understands them. The document, then, must communicate accurately.



(3) Not Design Solutions

Education specifications should not be stated as design solutions. They are, in effect, a statement of the problems the architect and engineer must solve, not the design solutions to those problems.

(4) Developed by the Planning Team with Consultant Help

Education specifications should be developed by the education planning team; however, consultant help must be made available to that team. One danger in educators planning education facilities is evidenced in some new schools buildings—they tend to express education specifications that can lead to built-in obsolescence in a new building. Planners must be alert to the danger and make consultants available to the team who can look at trends and look ahead to ensure that education specifications reflect such concerns.

Education specifications, at a minimum, should provide the architect/engineer information in four areas:

- The philosophy of the school; it should be stated including the goals and values to be achieved and outcomes desired from the school.
- The education programs that have been designed to meet the goals, values and outcomes; such programs should be described in detail—too much information is preferable to too little.
- The activities, groupings, and equipment necessary to support such programs, including student numbers involved.
- The implications for space and space relationships that come from the programs and activities.

Some information will, of course, be routinely supplied: number of pupils, grades to be included in the facility, provisions for community use, nature of future expansion, funds available, scheduled date of occupancy, and total staff and types of positions to be accommodated.

Additional information helpful to the architect might include the characteristics of the community, special requirements such as the ability to combine classroom space for larger instructional areas during certain times of the day, cafeteria space that doubles as a commons or presentations area, after school programs, or space for business partners or sponsors. Other predetermined general characteristics that are helpful to identify include the need for self-contained classrooms, how technology will be used in the school, or the need for in-school suspension specialized space. These are just examples; actual needs will vary greatly.

Other sources of assistance in this process could be right-sizing information found in Section 1. Facilities Planning [\(3\) Survey of Existing Schools](#) and the [SP-5](#) forms, which provide space size parameters and are the result of information compiled about recent Utah school construction.

b. Planning Using Education Specifications

Education specifications, then, should identify the design problems and should be expressed effectively and accurately. The format may be narrative, outline, charts or a combination of these. The planning process, resulting in written

education specifications, is of paramount importance. It should produce the best thinking of the planning team. The composition of this team must receive careful consideration. It may vary somewhat from district to district and from charter school to charter school but, in general, should represent the public whom the school will serve, the school administrative team, the district or charter administration, the board of education, the instructional staff, the classified staff, the para-educators, the students, and the architect. **Competent consultants should be made available to help the team.**

The education specifications developed by the planning team must receive the approval of the school district or charter school board of education. To prevent misunderstandings, it should be made abundantly clear to members of the planning team at the time of their selection and chartering, that they will make recommendations to the board and are not working in a final decision-making capacity.

The planning team should be aware of trends in education and of the design solutions provided by architects, engineers and other consultants. Education facility consultants can provide information on trends as well as suggest literature and schools where excellent design solutions can be seen. One consideration that should be constantly in the minds of the planners is that the life expectancy of the new school they are planning will be from 50 to 75 or more years. Thus, the school may well outlast the programs for which it was designed. To hedge against obsolescence in a school facility, planners would be wise to provide, in their education specifications, that the building be highly flexible.

Current technology makes it possible for the facility to be so designed and constructed that the mechanical, electrical, communications and interior wall systems can be readily changed to provide new types of space and spatial arrangements. This capability should be a prerequisite for new educational facilities so that early obsolescence due to education program changes does not occur and, equally important, so that needed program changes are not delayed or rejected because of facility restrictions.

c. Designing Safe, Secure Schools

Violence in our schools is an ever-growing concern. It is not a matter of if violence will occur, but when, and how much violence will be experienced. The threat is there; failure to act opens each school district or charter school to extensive liability. Remember the most important thing is the protection of students, staff, and patrons. Many programs can be implemented for students to reduce aggression. Training for staff can also be established to catch potential problems early. Even security equipment may be purchased and installed in both new and older buildings. While all of this will improve the level of security the real test is to design and construct schools so security will be built into the entire process. Security should be examined from the design phase through construction. Value engineering-out security for cost should only be done in extreme situations. The odds of dealing with a violent incident at school are more frequent and probable than a natural disaster. The entire campus must be designed so that education of students is primary and the fear of violence is eliminated.

Several security-related designs may be implemented when a school is being planned. It should be the local education agency's (LEA's) responsibility to

have the architect examine each recommendation noted in this section of the resource manual as well as those the district or charter, the school board, parents and the community feels warrant concern. The architect will also have opinions regarding what is needed and what might not be needed. Good communication needs to take place so when the school is built or remodeled the best solutions are implemented. To facilitate good logical thinking, the discussion of security should be addressed from the exterior into the interior.

(1) Perimeter of School Grounds

All schools need to have a weapon-free zone established around them. Signs should be posted indicating no weapon is allowed on campus, or school property.

The site should be designed to allow for a separation of parking areas whenever possible. Staff should have an area for parking in which students are not allowed to park. Parents and visitors should also have their own separate parking locations during school hours. As the site allows, bus loading should be separate from other vehicular traffic.

Traffic flow on school grounds should be free-flowing. Students should be able to come and go from the grounds and not have to work their way around the activities of the community. Staff should be able to come and go without interference from students or the community.

Landscaping at the school needs to eliminate potential hiding places. Bushes and trees that offer hiding locations need to be kept away from the school building. People need to be able to drive past the school and see what activities are going on around it.

(2) Parking Areas

Lighting is essential to the security of the site. Adequate lighting needs to be in place so that criminals will not want to conduct business at school facilities.

Parking lots need to be visible from the school, and the school visible from the lots. This helps to deter crime.

The routes from the parking areas to facilities need to be as short as possible. Direct access to the school is essential and should be monitored. This means that if security cameras are installed, the cameras need to cover the walkways. The entire walkway should be visible from the school.

Parking directly next to the school should only be allowed for deliveries or maintenance. All parking should be monitored by staff. Gates or barriers should be installed to protect against attacks whenever possible.

Parking signage should be visible, indicating to all parties, who is or is not allowed to use each respective lot.

(3) Building Exterior

All dead spaces (those not visible) need to be eliminated. There should be no hiding places. All facility doors are not required to be both entrances and exits for all occupants. Doors should be designed to allow limited access from the

outside whenever possible. The ability to permanently lock the exterior doors with crash bars on the inside, which allow continued building egress, should be provided whenever possible.

All entrances do not necessarily need to be unlocked throughout the day. In the morning the entrance with the closest access to the office should be open for all early morning work. A half-hour before school starts, throughout the school day, the rest of the doors may be unlocked. A half-hour after school ends all but one door, with close access to the office, should be locked again. This has the potential of forcing all traffic to filter past the school office.

The main school entrances should be monitored; which may be carried out with cameras. If cameras are not installed, there should be a physical presence made by someone with authority at each accessible entrance.

Roof access should only be made from inside the building. There should be no way to reach the roof from outside the building. This includes intentional or unintentional accesses.

All light needs to be as bright and effective as necessary while complying with all applicable energy and other building codes.

(4) Building Interior

All doors in the building need to be lockable. This will simplify a security lock-down situation.

All doors need to be made of solid wood, steel, or other materials capable of providing the necessary security while meeting compliance with all of the latest applicable building codes. Doors containing glass should only be allowed when provided with the proper glazing to provide the necessary security and safety. In case of a shooting, improperly rated glazing could be destroyed and entry made. There is also the potential for flying glass in a natural disaster. It should be noted that there have been changes to the types of glazing allowed in various areas of the building. Because of this, it is always best to check the latest building code requirements to help ensure increased safety of occupants.

In designing the school, interior foot traffic flow needs to be addressed. Areas that have heavy use, such as gymnasiums or auditoriums should be located in the same section when possible. If, for example, the community is using the stage and auditorium or the gymnasium, the rest of the school should be designed to be secured.

Traffic flow control elements can also be used to advantage in cases of violence. If provided and an intruder is in one portion of the school, the other portion(s) can be secured. This may help to keep the violence contained. It is most helpful if all security gates or doors have remote-controlled opening and closing devices on them.

All phones need to be in sight of the school office and should be monitored. This helps to reduce the possibility of false bomb threats made by students in the school. All phones need to have caller ID and tracing capabilities. This also reduces the potential of false bomb threats and harassing phone calls.

All glass in the building should be the required safety rating. This eliminates the risk of shattering glass in a violent episode or disaster. There are also fewer projectiles if safety glazing is in place.

Signage in the building should be clear and simple. All visitors must be required to check in at the school office. Staff should challenge anyone they do not recognize and visitors should be required to wear some identification during the entire time in school facilities. Visitors should be required to sign in and out and be accompanied by school staff at all times.

The office should be found at the main entrance to the school, be easily accessible, and appropriately indicated via signage as such. Security personnel, if present in the building, should also be found near the front of the school. This provides the appearance that security is important at the school.

If possible, an electronic access system should be in place so that during certain days and time periods only those with access cards have entry to parts, or any, of the building. This helps reduce free movement through the school and assists staff in tracking who is in the building.

The school should have a lights-out policy when unoccupied. While this can be debated, lights on when they are supposed to be off alerts passing security patrol personnel to check out suspicious incidents.

Hallways need to be as straight as possible, without nooks or recesses. Potential hiding places provide criminals a place to conduct business without being seen. Common areas and all potential gathering areas should have adult supervision and presence. The school should be designed so that the appropriate staff may access all parts of the building.

Students, like adults, do not want to be caught violating the rules. When provided a chance to do something in obscurity, they may.

Doors to restrooms should be eliminated when the design allows. A wall can be built in the restroom that will ensure visual privacy, but eliminating doors allows for less chance for physical misbehavior.

(5) Communications

Being able to communicate in a disaster or violent incident is critical. A two-way public address system should be installed in each classroom with a back-up power supply attached to it. Panic buttons should be installed in every classroom (including portable classrooms). The ideal situation is to build this into the access system so each staff member has a portable alarm with them. If, for example, they enter a restroom and see a problem they can push the button and the office will receive the alarm with the location of the problem. All alarms should be loud enough so they can be heard in all parts of the building.

While these are some ideas specifically developed for schools, it should be noted that government and private industry have also been working to keep all locations safer. Other ideas can be found at several Internet sites. The State of Utah has developed "[Security Recommendations for State Facilities](#)." In addition, the [Division of Risk Management](#) has on staff a security consultant who can assess the needs of each school and help discuss ideas to improve security. See [Auditing Schools for Safety](#) for a Virginia Department of

Education document regarding evaluating schools for safety. School security is essential to ensure that school personnel can focus on their mission: "to prepare every student with the knowledge and skills needed for lifelong success in a changing world."

d. Selecting an Architect-Engineer

[Administrative Rule 33-5 "Construction and Architect-Engineer Selection"](#) provides direction for the selection of architect-engineer services. It is the policy of the State to give public notice of all requirements for architect-engineer services and to negotiate contracts for these services on the basis of demonstrated competence and qualifications for the type of service required, at fair and reasonable prices. It is important to note the cost is prohibited from being part of criteria in determining the successful firm a school district or charter school contracts with.

(1) Annual Statement of Qualifications and Performance

LEAs are required to request firms engaged in providing architect-engineer services to submit annually a statement of qualifications and performance information which shall include the following:

- The name of the firm and the location of all its offices, indicating the principal place of business.
- The age of the firm and its average number of employees over the past five years.
- The education, training, and qualifications of members of the firm and key employees.
- The experience of the firm reflecting technical capabilities and project experience.
- The names of five clients who may be contacted, including at least two for whom services were rendered in the last year.
- Any other pertinent information regarding qualifications and performance information requested by the school district or charter school.

A sample of an SOIQ (Statement of Interest and Qualifications) can be obtained from [Jenefer Youngfield](#) at the USOE.

[American Council of Engineering Companies of Utah \(ACEC-Utah\)](#) (formerly the Consulting Engineers Council of Utah) and the local chapter of the [American Institute of Architects \(AIA\)](#) are required to provide the results of an annual survey on billing rates within their respective disciplines to school districts prior to April 1 of each year.

(2) Request for Statements of Interest

LEAs **must** prepare a request for Statements of Interest (SOI), or an SOIQ (Statement of Interest and Qualifications), which describes the school district project requirements to select architect-engineering (design professional) services and must contain evaluation criteria among other items in accordance with codes and rules.

(3) Small Purchases of Architect-Engineer Services

When the procurement of architect-engineer services is estimated to be less than \$20,000, LEAs may select the provider directly from either the list of firms who have submitted annual statements of qualifications and performance information, or from other qualified firms, if necessary. The state procurement code requires that if the procurement is estimated to exceed \$20,000, the architect-engineer selection committee method must be used. In the event that the total accumulated estimated cost of construction will be in excess of \$80,000, services need to be procured following all applicable codes, rules, etc.

(4) Architect-Engineer Selection Committee

The school district or charter school architect-engineer selection committee must consist of at least three members, at least one of whom (where possible) is well qualified in the professions of architecture or engineering, as appropriate. It should be noted that in the event that a school district or charter school does not have knowledge of or access to a well-qualified architect or engineer, [Jenefer Youngfield](#), at the USOE, can provide contact with individuals that can fulfill this properly. Because of this, there should never be a selection made of a design professional without a well-qualified individual on the selection committee. One member of the committee will act as chair and will coordinate the negotiations of a contract with the most qualified firm. Contracts are awarded at compensation which the school district or charter school determines to be fair and reasonable while still being compliant with all applicable codes, rules, and guidelines. In making the decision, the committee must take into account the estimated value, the project scope and complexity, as well as the professional nature of the services to be rendered. The selection committee must select for discussions no fewer than three firms evaluated as being professionally and technically qualified, unless fewer than three firms responded to the request for SOI or SOIQ.

Should the selection committee be unable to agree on a satisfactory contract with the firm first selected, at a price the school district or charter school determines to be fair and reasonable, discussions with that firm are formally terminated. The committee then begins discussions with other qualified firms—one at a time—until an agreement is reached ([Utah Code Annotated 63-56-702](#)). In the event that an agreement cannot be reached, the process must begin again from the advertisement phase.

e. School Facility Design

The district's or charter's long range plan is in place, a site has been selected, the education specifications are written, and an architect has been selected, but the work is not yet done. Although an exciting process, design of a school takes time and effort on the part of school administrators, staff and the board. The best projects are a result of an investment in time during design by all involved. An architect cannot and should not design a school in a vacuum.

The architect should begin by reviewing the site and surrounding community. Any history on the selection of the site is helpful. The education specifications should be reviewed and updated, if required. If the education specifications are recent and the planning team is available, the project will benefit enormously from a collaboration of the planning team and design architect.

It is best if a design committee is assembled to work with the architect and engineers. The designers bring experience and expertise to the process, but must discover the specific needs and aspirations of the patrons and users of the school. The design committee should have representatives from the board of education or charter school board, the administration, teachers, support staff, parents and students when possible. These last two categories are sometimes forgotten but are the most crucial. Parents and students are, after all, the ultimate client we are all serving.

The architect should meet with the design committee to discuss the philosophy and goals of the community and school district or charter school prior to starting the school facility design. The design committee should meet further to review schematic building and site designs and to assist the architect in selecting construction materials, building systems, and the architectural image.

(1) Site Planning and Design

Issues of site access, traffic patterns, surrounding property usage, building orientation and public image are investigated and resolved. On site school bus, automobile and pedestrian accesses are designed. Play fields are laid out. Delivery access to kitchen, mechanical spaces, and trash removal is dealt with. Building and site utility requirements are outlined. On and off-site utility impacts are investigated.

The local municipality should be contacted to discuss zoning ordinances, traffic impact, and availability of water for fire protection as well as quality of culinary water. Sanitary sewer systems need to have available capacity checked. Storm drainage requirements—such as on-site rainwater detention—need to be identified. Other agencies should be contacted for information such as [Utah Department of Transportation](#) (if the site is on a state highway or right-of-way), [electrical power](#) and [natural gas](#) companies, and [telephone](#), cable television and irrigation companies.

The architect should coordinate these efforts but may need assistance from district or charter staff. A civil engineering consultant should also be commissioned at this point to design site utilities, pavements and grading.

(2) Building Schematic Design

The architect will draw floor plans, elevations and renderings to indicate the design intent. These drawings should have enough information to show compliance with the education specifications and requirements of the design committee. A site plan should be included. Additional drawings expressing any unique building issues may also be required. A statement of probable costs should be required of the architect to show that the project will meet budget requirements set forth in the education specification.

These drawings should be reviewed by the design committee and school district/charter staff. They should then be presented to the community and approved by the board.

[The Utah State Fire Marshal](#) must also be contacted to review these plans.

(3) Design Development—Selection of Systems and Materials

When the schematic design is approved by the board of education, the architect, with the help of the design committee and district/charter maintenance staff needs to specify construction materials for floors, walls, ceilings, doors and windows, cabinetry and equipment, etc. The heating ventilating and air conditioning (HVAC) systems, plumbing fixtures, fire alarm, intercom/sound, security, telephone and television systems are selected. Past maintenance problems should be discussed to discover methods of improving construction. The architect should enlist the help of structural, mechanical, electrical, and any other necessary consulting engineers at this point in the project.

Principals, teachers, custodians, school foods, custodial, pupil transportation, and any other applicable department staff, should be interviewed concerning equipment, site and building issues.

The architect prepares more detailed drawings and an outline construction specification reflecting the wants and needs of the school district or charter school. An updated statement of probable cost is submitted at this time to show the project is on budget. These drawings and construction specifications should be reviewed by the design committee and district/charter staff. Approval may be given by the administrative staff or the board of education may want to be involved. These documents are used in the value engineering process described in [part 5.b.](#) of this reference manual.

(4) Construction Documents

Once design development approval is given and value engineering is complete, the architect and consulting engineers prepare construction documents to be used in the bidding process and as the guide for the contractor to construct the project. Detailed drawings and construction specifications are prepared. The design committee and district or charter staff's time involvement is minimal at this stage; however, they should be available as a resource as questions of coordination arise. Once again a statement of probable cost should be required of the architect to assure the project is on budget prior to bidding. Bidding a project and having it go over budget is not a pleasant experience. Approval to proceed to the bidding process is usually given by the board of education.

f. The Architect's Ongoing Role

The school building design is complete, drawings and specifications are printed, and all plan review has taken place. The project is well on its way; however, the architect can and should be commissioned to assist the school district or charter school with bidding and construction administration, including project closeout and startup. The architect can assure continuity, from education specification to the opening day of school, to ensure the written program was completed in bricks and mortar. Many school districts have architects and/or project managers on staff, but benefit from requiring the design architect and engineers to stay personally involved throughout construction.

A one-year post occupancy and contract warrantee review of the project by the architect, engineers, district, and charter schools is a good way to make sure

the building is used as it was designed as well as to identify any problems the contractor needs to rectify under warranty.

g. School District Building Official (SDBO) or Charter School Building Officer (CSBBO) and State Fire Marshal Plan Review at Schematic Phase

The [SDBO or CSBBO](#) and [the Utah State Fire Marshal's office](#) will conduct a preliminary plan review at the schematic phase of the project. It is recommended that the SDBO and CSBBO work closely with the State Fire Marshal representative from this point forward regarding the project. The project architect needs to be present during this review because there will be many questions Fire Marshal's office personnel will have due to the early stage of the project development. The site plan is reviewed for local fire department access, fire hydrant placement, and proximity of the building to other structures or exposures. Other specific review points include the architect's determination of the following:

- Building occupancy
- Construction type
- Area of the building
- Height of the building
- Need for fire sprinklers
- Need for area separation walls
- Need for fire rated corridors
- Alternate methods or materials (trade-offs)
- Special or unusual circumstances
- Egress—including door swing, location, size, and number, as well as egress travel distances

5. Plan Review/Value Engineering

Revised June 2012

a. Coordination With Cities and Counties

A good working relationship with municipalities is ever more critical in today's political and economical environment. It would behoove local education agencies (LEAs) to educate city and county leaders and staff that educational facilities are municipal infrastructures just like streets, parks, police and fire stations. Good schools are important to municipalities. City and county governments, more often than not, create the need for a new school by approving commercial and housing developments; yet many times give little assistance to LEAs to provide that infrastructure. LEAs should communicate with cities and counties about upcoming planning and zoning issues and major private development approvals.

Prior to property acquisition, LEAs should contact the municipality or county and research growth trends and possible zoning changes that could affect the site in question. But, municipalities and counties are required to maintain confidentiality which should help ensure problems don't arise in the process of obtaining property.

During the site planning and design, the school district or charter school should approach the planning commission for their input, as well as the municipal or county engineering staff, for information concerning roads, pedestrian ways, utilities and adjoining property usage.

When new educational facilities require off-site street improvements and/or utility connections, the municipality or county will require construction to be done to their standards and inspections. Storm drainage detention requirements will also have to be met. Often fire suppression water lines built on school property are required to be constructed to city or county standards as well.

LEAs are required to report inspections to the municipality as spelled out in [7. Inspection Process](#) of this reference manual. School construction inspection must meet the requirements of [R277-471 "Oversight of School Inspections"](#) and [53A-20 School Construction](#). See the [School District Building Official Charter School Board Building Officer](#) section of this reference manual.

b. Value Engineering and Life-Cycle Costing at Design Development Completion

The obligation to conserve energy and the need to reduce long-term operational costs require LEAs to use planning techniques that will contribute to the design and construction of energy-saving, cost-effective educational facilities. Two closely related management tools are available for school construction that have the potential to do just that: value engineering and life-cycle costing.

(1) Value Engineering

Value engineering or value analysis is a systematic approach to obtaining the greatest value for each dollar spent in building construction. It is concerned with a *cost* versus *worth* evaluation to give a broad information base from which decisions are made to produce cost effectiveness. The process should take place at the completion of design development. This allows for enough detail of building design, materials and systems that they may be evaluated, but the design and drawings have not progressed so far that the school district/charter school and architect are reluctant to make suggested improvements.

Value engineering is required to assure that the project is completed in such a way to give the most long term value to the community and quality to the school building. Life cycle costing should be used to determine material and system choices. In value engineering such questions as the following are asked:

- What is it?
- What does it do?
- What should it do?
- What does it cost?
- What other materials or methods could do the same job?
- What would alternative materials or methods cost?

Value engineering should not be considered a cost-cutting exercise. No value is gained by using roof-top mechanical units that wear out in twenty years or a cheaper floor carpet that must be replaced in five years. True value engineering suggestions often add cost to a project. If the project is over budget at the design development phase, the program and schematic design should be revisited to cut building area or the budget should be increased. Construction materials should not be cheapened and compromised to become an ongoing maintenance budget burden for the next 50 to 75 years.

Value engineering can be accomplished in many ways. The design committee architect and engineers will hopefully be practicing this throughout the design process. There are several formal methods that can be used.

One method is to have district or charter staff, if enough qualified personnel exist, formally review the plans with the architect and engineers. District or charter school plumbers, electricians, maintenance personnel, custodians, other administrators and staff sit down and discuss the design with the architect and engineers.

Another method involves a "cold team" of design professionals. The "hot team" consists of the contracted architect and consulting engineers. The "cold team" consists of an architect, structural, mechanical, electrical, and any other applicable engineers commissioned independently. The "hot team" presents the project design to the "cold team" and school district or charter school staff. The "cold team" then brainstorms with the district or charter staff, coming up with a list of suggested improvements.

The purpose of value engineering is to validate the design direction of the project and to step back and look at the total picture. No suggestions or comments should be held back during the design development value engineering review.



With either method described above, the design committee, district/charter staff, architect and engineers then prioritize the suggestions and determine whether or not to implement them, based on program criteria and the budget.

In recent years value engineering has also taken into account *life-time (cycle)* costs as opposed to just *initial* costs. Life-cycle costing has become a part of the value engineering process.

(2) Life-Cycle Costing

Life-cycle costing is the determination of the total cost of a building or an element within a building over the assumed life of the facility. The principal components of life-cycle costing are:

- The initial capital costs, including actual construction, architectural and engineering fees, furniture, equipment, land, site work, and landscaping;
- Annual costs, which includes renovation, alteration and replacement costs, maintenance and custodial costs, utility and fuel expense, as well as grounds maintenance costs;
- Finance, interest, and bond sale charges related to initial construction.

It may be less costly over the life of the building, for example, to purchase Heating Ventilating and Air Conditioning (HVAC) system "A" at an initial *higher* cost than HVAC system "C" at an initial *lower* cost because HVAC system "A" will last longer with less maintenance costs over the life of the building.

c. Structural Peer Review of Plans at Ninety Percent Completion

As part of the plan review by the [School District Building Official \(SDBO\) or Charter School Board Building Officer \(CSBBO\)](#), an additional structural state-adopted building code review of the building shall be done, at least, at the ninety percent completion phase of design. An independent third party licensed Structural Engineer must perform this code review. The review will focus primarily on the lateral load resisting systems and details. At this time such systems should be clearly identified, and sufficient detailing should be present within the contract documents. The basis for the review is the current seismic loads generated in relationship to the most recent adopted building code.

As a means of reducing the costs and the time involvement for this second independent structural review, it is suggested that the same structural engineer, but independent of the firm performing the design, that took part in the [value engineering process](#) review perform this task. Unless major deficiencies are discovered, sufficient time should be left within the design period to implement any corrections necessary. If major problems are discovered, there should be sufficient time to complete the corrections without delaying the project.

All new school construction and major additions to existing facilities located in regions of moderate to high seismic risk must be subject to this procedure— basically schools in the area from the Idaho border to the Nevada border along the Interstate 15 corridor and approximately 35 miles each side of the Interstate. The latest version of the building code provides seismic ground

acceleration data for architects/engineers to use as facilities are designed throughout the state.

d. USOE Role in the Review Process

The Utah State Office of Education (USOE) has the role of tracking projects costing more than \$99,999, those using federal funding that must be reported to the USOE, those who will require the Certificate of Occupancy be obtained through the USOE, and assuring that buildings are designed and constructed to the latest version of building codes and all other applicable federal, state and local laws, rules, and guidelines. The process begins with the submittal of completed SP-4 and SP-5 forms, and all other items outlined on the [Pre-Construction Checklist](#).

[Preliminary Information on Proposed School Facilities Construction—Form SP-4](#): The information contained on this form identifies what the project is, where it is, who the owner is, who the project architect is, and what the preliminary cost estimate is. When this form is completed and transmitted to the State Office of Education, along with all other Pre-Construction Checklist items, a project file is opened at the USOE. The form should be submitted online directly to the School Facilities Specialist at the USOE. The completed SP-4, with preliminary drawings or schematics, is the first step in the approval process.

[Final Plans Data on Proposed School Plant Construction—Form SP-5](#): The information contained on this form identifies the total area, number of stories, type of structure, estimated month and year of completion, the number and sizes of instructional rooms and other types of support spaces. The form should be submitted online directly to the School Facilities Specialist at the State Office of Education. The completed SP-5 must be returned before approval is given to proceed with the project.

The School Facilities Specialist, along with the [School District Building Official \(SDBO\) and the Charter School Board Building Officer \(CSBBO\)](#), monitor and ensure all building and inspection codes, rules and regulations are complied with as the project progresses to completion.

e. Energy Code Plan Review

Energy conservation should be a major factor in the design of every new school building. The federal Energy Policy Act (EPAAct) of 1992 required states to adopt [ASHRAE/IES Standard 90.1-2004](#), or an equivalent, to assure a basic degree of energy design. The 90.1-2004 Code is intended to promote the application of cost-effective design practices and technologies that minimize energy consumption without sacrificing either the comfort or productivity of the occupants. In response, the State of Utah adopted the 2009 International Energy Conservations Code (IECC). In Utah, all new school facility or addition/remodel projects must comply with the current code(s). The requirements apply to the building envelope, distribution of energy, systems and equipment for auxiliaries, heating, ventilating, air conditioning, service water heating, lighting, and energy management. A complete set of ASHRAE/IES Standard 90.1 compliance forms can be obtained by submitting a request form to the [ASHRAE/IES Standard 90.1-2004 Energy Code](#). In July 2001 the Utah State Building Board set a standard which is twenty-five percent *higher* for all new state-owned buildings than the [ASHRAE/IES Standard 90.1-2004 Energy](#)

[Code](#). LEAs are also encouraged to meet this higher standard for energy code compliance as new school facilities are designed and constructed.

Although COMcheck is a tool formerly used on its own to determine energy code compliance, this no longer meets the requirement of energy compliance.

[COMcheck](#) compliance forms, software disk, and instructions for using [COMcheck](#) may be obtained from [Pacific Northwest National Laboratory](#).

Educational programs dealing with energy conservation can help make conservation a way of life. Schools can directly attack the problem of increased energy use in their own operations. New schools carefully designed to conserve energy in the total school operation and over the life of the building should be an important part of a school district's and charter school's overall conservation program. The State Office of Education encourages LEAs to meet or exceed the U.S. Environmental Protection Agency's goals for [Energy Star](#), a national performance energy rating system, and earn the Energy Star designation on their buildings. An Energy Star [rating and recognition](#) can be obtained for school buildings where the building is rated at 75 or greater—where the industry average for all schools in the nation is set at 50. The EPA local Region VIII contact is [Patty Crow](#); the national New Building Design contact is [Karen Butler](#).

The project architect, School District Building Official, Charter School Board Building Officer and the USOE School Facilities Specialist are required to be provided a written energy code compliance report, performed by properly ICC certified commercial plan reviewers, in a timely manner so any needed corrections can be made prior to construction based on at least ninety percent plans and specifications. During construction, energy code field inspections should be made to ensure the facility is actually constructed in compliance with the Energy Code.

Note: Relationship Between ASHRAE/IESNA Standard 90.1-2004, the Model Energy Code, and the IECC

Since the early 1970s, [ASHRAE](#) has developed standards for commercial building energy use. Model code organizations have incorporated these standards into the [Model Energy Code](#) (MEC) and the International Energy Conservation Code (IECC). The MEC was developed and maintained by the Council of American Building Officials (CABO). With the advent of the [International Code Council](#) (ICC), the task of maintaining the MEC codes was passed to the ICC and resulted in the release of the two IECC codes, with the first edition being released in 1998.

f. Certified Plans Examiner Review

Prior to bidding a project, the School District Building Official (SDBO) or Charter School Board Building Official (CSBBO) must arrange for an [ICC certified commercial plans examiner](#) to review the plans for compliance with the state adopted building codes and have corrections implemented into the plans and approved by the ICC certified commercial plans examiner. Correcting errors prior to construction should reduce the need for expensive change orders later in the process.

g. School District Building Official/Charter School Board Building Officer and State Fire Marshal Plan Review

All plan review submittals—whether they are for the final plan review, a fire sprinkler plan review, or for the fire alarm plan review—must be accompanied by a completed "[Fire and Life Safety Plan Review Submittal Form](#)" with the architect's code analysis for the project. No incomplete plans will be accepted for review by the State Fire Marshal's office. All items called for on the "Fire and Life Safety Plan Review Submittal Form" must be supplied at the time of submittal—for example: cut sheets on the hardware; the engineer water supply analysis; architectural, electrical, fire protection and mechanical plans; building specifications; finish schedules; as well as door and window schedules.

The final plan review must be completed by the School District Building Official (SDBO) or Charter School Board Building Officer (CSBBO) and the State Fire Marshal's office prior to bidding the project. It is important that architects plan for appropriate review time within the project schedule. All plans and specifications must be complete when they are submitted for review. The plans must also show all buildings and roadways within 150 feet of the proposed building for exposure determination.

Remodel or addition project plans and specifications must also show enough of the existing building(s) and site to determine proper fire protection and personnel exiting as well as whether or not the project causes or compounds any problems with existing buildings. This includes any relocatable buildings near the potential project.

In addition to general, rather generic comments that may be noted in the review response letter back to the architect; a specific review is completed noting where the plan and/or specifications documents are deficient. The review shall include an in-depth evaluation of all items on the preliminary schematic list (see [Section 4. Subsection f](#), "The Architect's Ongoing Role," of this reference manual), plus all of—but not limited to—the following:

- Corridor construction
- Fire proofing of structural members (spray or encasement)
- Stairs and ramps
- Exit enclosures, including passageways
- Shafts
- Fire extinguisher locations and types
- Open areas, such as commons areas or cafeterias
- Pass-through passageways
- Intervening rooms
- Special doors (overhead, sliding or folding)
- Dead ends and obstructions
- Hazardous areas (science labs, boiler rooms, shops, etc.)
- Attic smoke and draft stops
- Insulations
- Wood usage in connection with construction types
- Door and window schedules, along with hardware
- Finish schedule
- Special architectural appliqué

- Fire and smoke dampers
- Plenums
- Emergency lighting
- Exit signs
- Fire alarm systems, including placement of horn/strobe, pull stations, heat and smoke detectors, and fan shut down
- Sprinkler and alarm plan and specification submittals must be reviewed by the project engineer of record and then submitted along with a copy of the engineer's review comments

A plan review letter is generated by the School District Building Official (SDBO) or the Charter School Board Building Officer (CSBBO), together with personnel at the [State Fire Marshal's office](#), and sent to the project architect. The plans and specifications are not returned to the architect. The architect must respond to the SDBO or CSBBO and the State Fire Marshal's plan review letter in writing prior to the commencement of any construction.

h. State Fire Marshal Inspections

Due to the large volume of projects being constructed throughout the state and the limited staff at the State Fire Marshal's office, for the most part, State Fire Marshal inspections are limited to a 70% completion inspection and a final inspection. However, State Fire Marshal personnel do conduct additional "construction-in-progress" inspections, and it is rare that a final inspection consists of only one visit to the project. It is most important that the architect, contractor, a representative from the school district or charter school, and the local fire department be present for the 70% completion inspection. To this is added all appropriate sub-contractors for the final inspection.

At the 70% inspection the State Fire Marshal's office will check all of, but not limited to, the following:

- Fire department access
- Fire hydrant placement and operation
- Fire walls (area separation; complete to the deck; penetrations; dampers; etc.)
- Exiting (any obstructions?)
- Sprinkler piping, stand pipes and hydrostatic tests
- Certificates of underground piping tests
- Door and window frames
- Insulation and coverings
- Wood usage in structure (non-combustible)
- Fireproofing
- Penetrations of structural members
- Embedments
- Heating procedure (fuel location and piping)
- Welding and cutting procedures
- Roofing pots and procedures; roofing materials

Prior to the final inspection, the architect must assure that the project is complete and ready for inspection. Thus, the architect should be the only one who sets up the final inspection, arranging for all the participants to be there. Those who must be in attendance at the final inspection are:

- Architect
- General contractor

- Project engineers
- School district or charter school representative(s)
- Fire sprinkler system contractor
- Electrical contractor
- Mechanical contractor
- Fire alarm system contractor
- School District Building Official (SDBO) or Charter School Board Building Officer (CSBBO)
- Representative from the State Fire Marshal's office
- Representative from the local fire department
- Building inspector

A complete walk-through of the entire project is conducted again, checking all items listed for the 70% completion inspection. An inspection of the fire sprinkler system is conducted noting coverage, and completeness of the riser. Testing is also conducted to insure its function. The fire alarm system is completely checked for operation and adequate coverage. This also includes the twenty-four hour battery test. Emergency lighting and exit signs as well as door operation and hardware are also checked. The mechanical systems are inspected and tested for shut down, exhaust or special function, including fire/smoke dampers. The kitchen hood fire suppression system is also inspected and tested, including the fire alarm tie-in and fuel shut-offs. All special doors—such as roll-up doors or horizontal folding doors are inspected and tested. Inspectors also check to be sure appropriate certificates—where applicable—have also been obtained.

It is also important that a Key Plan—a flow plan showing the fire zones and the fire sprinkler plan—be installed next to the fire alarm control panel to aid the local fire department if there is a fire in the building.

The State Fire Marshal's office will generate a written final inspection report and send it to the project architect and school district or charter school. Fire clearance is only issued after all fire and life safety items previously listed as deficient are resolved appropriately.

The school district or charter school must understand that **no occupancy is permitted without obtaining the Certificate of Fire Clearance, the inspector of record's final inspection, all of the required documentation submitted, and an appropriate Certificate of Occupancy is issued.**

i. State Risk Management Plan Reviews

Utah State Risk Management can provide preliminary school construction plan reviews for Americans with Disability Act ([ADA](#)) accessibility and playground equipment safety.

You may contact Risk Management at:

Utah State Risk Management
5120 State Office Building
Salt Lake City, Utah 84114
(801) 538-9597

[Utah State Risk Management Web Page](#)

j. Local Health Department Plan Review

The local health department provides plan reviews to ensure the project complies with [Administrative Rule R392-200](#), "Design, Construction, Operation, Sanitation, and Safety of Schools, and all other applicable federal, state, and local codes, rules, and guidelines." The State Health Department is also a resource for questions related to Administrative Rule R392-200:

[Utah State Health Department](#)

[Division of Epidemiology & Laboratory Services](#)

[Food Safety and Environmental Health](#)

288 North 1460 West

Salt Lake City, Utah 84114-2103

(801) 538-6750

[State Health Department A to Z Listing - Programs & Services](#)

6. Procurement (Bidding) Process

Revised August 2012

Effective May 2013, all local education agencies (LEAs) are required to comply with all applicable changes to procurement laws and codes.

The construction procurement or bidding process is one of the most important steps in the construction of a new facility or the remodeling of an existing facility. If not carried out properly, the process can create legal problems which can cause delays and/or complications. Improper bidding can also end up costing LEAs more money. Any problems related to procurement must be resolved prior to beginning construction. The scope of service must be clearly defined for the project to be successful.

a. Preparation

Prior to procuring any construction services, key decisions should have been made. Some of the key factors to consider would include the makeup of the design team; the type of construction contract to be used; whether the project will be bid as a Construction Management Contract, Design-Bid-Build Contract, Design-Build Contract, Lowest Competitive Bid, Restricted Bidding Contract, Value Based Procurement or other; whether there are specialty design members or construction trades involved; whether there is federal funding tied to the project that may involve extra reporting; whether there will be special conditions with the project that will require more than just standard expertise; and so on.

Utah Code allows public school construction to be carried out using three different methods: Design-Bid-Build (DBB), Construction Manager/General Contractor (CM/GC), or Design-Build (DB). Competitive Bidding using DBB is the most common method for the construction of public buildings. However, CM/GC has been utilized frequently with great success. This allows the owner the option of pre-selecting a contractor based on qualifications, rather than just on fees. The CM/GC method allows for the contractor to assist the architect-engineer and owner in the design and budget process.

The State Building Board designed its facilities procurement standard after a modified Value Based Procurement process developed by Dr. Dean Kashiwagi at Arizona State University. Value Based procurement embraces a partnered, on-budget, on-time delivery process wherein everyone concerned works towards common goals. Dr. Kashiwagi developed the [Performance Based Studies Research Group](#) (PBSRG) at Arizona State University's Del E. Webb School of Construction in 1994. The PBSRG is a nonprofit research group with the following goals:

- Reduce the life cycle cost of a project.
- Improve the quality of work.
- Minimize change orders.
- Identify performing contractors and construction systems.

- Replace the low-bid contracting system with performance based procurement.
- Motivate contractors to perform at higher levels.
- Complete projects on time and within budget.
- Minimize paperwork.
- Reduce the risk of an owner.
- Minimize bias.

Since the Arizona State process was developed, many variations and improvements have been made to this process by others.

More information on Performance Based procurement may be obtained at the following Web sites:

[Value Based Procurement at DFCM](#)
[Ted Garrison's Construction 3.0 Strategies](#)

If a method other than Lowest Competitive Bid is selected, then it is possible for the owner to pre-qualify bidders. State law requires not only using certain methods but criteria be used in the selection of design professionals (architects and engineers) and construction firms.

When [selecting architects](#) the [SOIQ](#) process must be used or the following must be included in determining the most responsive and responsible offeror: qualifications, education and training of firm; experience and technical capabilities of the firm; the name of the firm and all of its offices, age of the firm and average number of employees over the last five years; name of five clients, including at least two for whom services were rendered; any other pertinent information required by the procurement officer. You must clearly state the criteria weighting in the advertisement. **Note: Cost cannot be a factor used in the selection process of design professionals.** Administrative Rule and the Utah State Purchasing RFP manual require 30 percent of the total score for RFPs, in selecting contractors, be assigned to cost.

When pre-qualifying for public projects, the qualifications usually depend on the financial stability of the bidding company and the scope of projects the company has completed in the past. A surety company may also be required to certify that the bidder is capable of bonding for the required dollar amount of the project. An example of the pre-qualification information for a contractor to submit can be found in [American Institute of Architects \(AIA\) Document A305](#).

b. Bid Documents

Bidding documents should include the following:

- Advertisement or invitation to bid
- Instructions to bidder
- Bid forms
- Information on [bid security or bond](#), if required
- Owner-contractor agreement form
- [Performance bond](#), and labor and material [payment bond](#), if required
- General and any supplementary conditions of the contract
- Drawings and specifications
- Any addenda issued prior to the receipt of bids



- Complete list of alternates (additive or deductive)

Bid documents must be made available to all bidders in their entirety. Making only portions of documents available will most likely result in inaccurate bids, as several documents may contain vital information relating to a particular segment of work needed for an accurate bid. The architect can assist the owner in providing the correct number of documents needed by the contractor to obtain bids.

To maintain compliance all plan holders and/or bidders should be required to register their addresses, phone numbers, and contact persons with the architect. This information can be used for the purpose of issuing addenda, document tracking, and deposit refunding, which are natural parts of the bidding process. If the project is posted on BidSync, listing the BidSync or bid number and website in the bidding documents for addenda information is acceptable.

c. Bid Advertisement

For school construction, the law requires that bids be advertised for ten working days. This must be done in local newspapers and other publications as determined by school district or charter school purchasing agents. It is generally advantageous to the owner to advertise in a bid service such as the [Intermountain Contractor](#), or other bid service publications. The architect should also prepare the bid form for the owner. The form should be concise and filled in completely by the bidder. Failure on the part of an offeror to fulfill the bidding requirements would be considered nonresponsive. Do not allow any straying from the criteria outlined in the [bid advertisement](#) during the evaluation of proposals process. All members of selection committees for procurement are required to complete a conflict of interest form.

d. Deposits

When distributing bid documents to bidders, the owner or architect should collect a deposit to ensure the return and good condition of all contract documents. Here is a [sample Bid Bond Document](#). These documents will later be turned over to the successful bidding agent to be distributed to their subcontractors. In the event that a bidder does not return the bid documents, their deposit is forfeited. The recommended deposit should approximately equal the amount required to reproduce the documents.

e. Insurance

All contractors and subcontractors must carry specific amount of workers compensation insurance. Most contractors and subcontractors also carry Commercial General Liability Insurance, Automobile Liability Insurance, Aircraft Liability Insurance (if applicable) and Valuable Papers and Records Insurance (if applicable). The insurance provider is required to be licensed to do business in the state of Utah or have a Best's rating of no less than A:VII.

The State of Utah, through the Division of Risk Management, has instituted a statewide [Owner Controlled Insurance Program \(OCIP\)](#) for the benefit of state agencies. These agencies include the [Utah Department of Transportation](#)

(UDOT), the [Division of Facilities Construction and Management](#) (DFCM), [LEAs](#), as well as [colleges and universities](#).

OCIPs are being used on major construction projects across the nation. Most large contractors are familiar with an OCIP or "wrap-up" concept. Under an OCIP, the owner—in this case the school district or charter school—furnishes the insurance on the construction project for the protection of the owner, project manager, general contractor and all tiers of sub-contractors. Insurance costs are identified in the bid documents and then removed with a change order when the bid is awarded.

There are many advantages to using an OCIP. Broader coverage and higher limits can be obtained because of volume buying power. This provides the best coverage for all insurers at the best possible price. The OCIP also eliminates the substantial policing effort on the part of the owner and contractors to assure that numerous certificates of insurance are in place and correct.

In addition, under a fragmented insurance program, the owner cannot be assured that completed operations coverage—that is, coverage for losses that are caused by the contractor's negligence but happen after work has been completed—would still be in force. The OCIP provides for this coverage to continue for five years after project completion.

(1) Insurance Provided by the Owner

Subject to the insurance provisions of the construction contract, the owner secures—at its own expense—specific coverage for all contractors and subcontractors of all tiers performing work at the project site. The owner's insurance will not apply to vendors, suppliers, material dealers, truckers, or others who merely furnish property and/or transport materials, parts, or equipment to or from the project site. The OCIP does not provide insurance coverage for automobiles or contractors' equipment. The owner provides the following insurance:

[Workers Compensation Insurance](#) with Utah statutory limits for contractors in accordance with [UCA 34A-2 Workers Compensation Act](#), including Coverage B, employers' liability with limits of \$1,000,000 each accident, \$1,000,000 per disease-policy limit, and \$1,000,000 per disease—each employee. \$200 per claim contractor deductible applies. Each contractor will be issued an individual Workers Compensation policy; losses on projects will affect individual experience modifiers.

[Commercial General Liability Insurance](#) affording insurance for the hazards of the premises and operations (including explosion, collapse, and underground hazards), elevators, independent contractors, completed operations and products, broad form property damage (including completed operations), blanket contractual liability, and personal injury liability. Limits are \$2,000,000 per occurrence and \$10,000,000 aggregate. \$1,000,000 per occurrence contractor deductible applies.

[Excess/Umbrella Insurance](#) with total limits per occurrence and aggregate of \$100,000,000.

[Railroad Protective Liability Insurance](#) (as required) with limits of \$5,000,000 per occurrence and \$10,000,000 per aggregate.

[Builder's Risk Insurance](#)—provided by the State for DFCM, school districts and charter schools. A \$5,000 per occurrence contractor deductible applies.

[Architects and Engineers Professional Errors and Omission Liability Insurance](#) with limits of \$25,000,000 per claim and \$50,000,000 per aggregate \$1,000,000 per claim deductible applies.

[Contractors' Pollution Liability Insurance](#) with limits of \$10,000,000 per occurrence and \$10,000,000 per aggregate. \$5,000 per occurrence contractor deductible applies.

(2) Insurance Provided by Contractors

All contractors—including subcontractors—must at all times maintain the following insurance:

- Workers Compensation Insurance with Utah statutory limits for contractors, including Coverage B, employers' liability with limits of \$100,000 each accident, \$500,000 per disease-policy limit and \$100,000 per disease-each employee
- Commercial General Liability Insurance with \$2,000,000 aggregate and \$1,000,000 per occurrence limits
- Automobile Liability Insurance with \$1,000,000 combined single limit
- Aircraft Liability Insurance (if applicable) with \$1,000,000 per occurrence limit
- Valuable Papers and Records Insurance (if applicable)

Certificates evidencing insurance coverage must be submitted to the Utah OCIP insurance brokerage firm project administrator prior to commencing work.

Please see Supplemental General Conditions and a Safety Overview for the Owner Controlled Insurance Program. The State of Utah, through the [Division of Risk Management](#), has contracted with the following insurance brokerage firm to provide the Utah Owner Controlled Insurance Program:

[Willis Insurance Brokerage of Utah, Inc.](#)

6985 Union Park Ctr, Suite 625
Midvale, UT 84047-6072
(801) 316-6930

Bruce Dennis, Project Manager
John Ritter, Safety Manager
Bruce Dennis, OCIP Administrator

The individuals to contact for more information regarding the Owner Controlled Insurance Program at the State Division of Risk Management are:

[Tami Downing, Director](#) – tdowning@utah.gov or [Steve Hewlett, Assistant Director](#) — shewlett@utah.gov at (801) 538-9560.

f. Addenda

During the bidding period, it is natural for the potential offerors to have questions regarding the bid documents. Occasionally, the architect or engineer may want to change the documents to reflect the concerns addressed during the bid period. The owner or architect-engineer should never answer a question over the phone unless the answer can be found in the bid documents. All other responses should be in writing and submitted to all plan holders as part of an official addendum. Doing otherwise jeopardizes the bid process and could result in a bidder contesting the bid results. It is also recommended that language be included requiring all contact about the bid be directed to a specific individual or individuals, including potential disqualification for noncompliance.

It is generally best practice to have all addenda issued from the architect. All questions during bidding should also be channeled through the architect.

g. Bid Opening

In the public process, all bid openings must be conducted in open meetings. Bidders may be provided with bid tally sheets as provided by the architect. The bids should be read aloud. The receipt of addenda, the presence of the bond and securities, and any other irregularities should be noted at this time. Bids received after the date and time set aside for receipt of bids should be returned unopened to the bidder. At the end of the bid opening, it should be stated that this is what the proposals indicate and following evaluation of the bids, the successful bidder will be announced.

h. Awarding the Contract

The owner does not have to accept the low bid or any of the bids. However, in rejecting any of the bids, careful consideration should be given and reasons carefully outlined. Once a contractor has been selected, the owner has the right to negotiate with the contractor for changes. If major changes are necessary, the project may need to be re-bid. However, this could cause major problems and should be avoided, if possible.

The owner should instruct the apparent low bidder, and possibly the second low bidder, to review his/her bid for accuracy and to submit for review the subcontractors whom the contractor intends to utilize or verify that the subcontractors provided in the bid can meet the requirements set forth in the bid documents, if required as part of the bid. This should generally be required and can be accomplished within 24 hours. This will also prevent the contractor from shopping around for lower subcontractor prices (or shopping bids) that will not be of benefit to the owner, and is not legal.

i. Procurement (Bidding) Process Summary

The [American Institute of Architects](#) (AIA) has several documents available to assist in the bidding process and may be consulted to obtain the necessary documents. Bidding and Negotiation Document 3.91 was a primary source of information for this reference manual. This, along with AIA Documents A305 (Contractors) and B141 (Qualifications Statement Owner-Architect Agreement) from the Architects Handbook, should be studied when preparing for the bid

process. LEA architects can help secure these documents. The owner's legal counsel should also be consulted, along with the owner's purchasing departments or those assigned to oversee such procedures.

j. Purchasing Specifications and Procedures

The Division of Facilities Management (DFCM) has developed a purchasing specification and procedure which has been modified by USOE for use by LEAs, and is another option to consider.

A specification is a detailed description of materials, supplies, equipment, pre-cuts, or construction work that is used in the procurement process to tell prospective contractors precisely what the owner desires to purchase. A statement or scope of work is a unique type of specification generally used for the procurement of professional or management services. Federal regulations published in the Guidebook for HUD Grants Contracting [[24 CFR 85.36\(c\)](#)] states, in part, "All procurement transactions shall be conducted in a manner providing for full and open competition." In compliance with this requirement, the State of Utah requires that specifications or statement of work for all construction must be designed so as not to restrict competition to one supplier.

The purpose of a specification is to serve as a basis for obtaining a supply or construction item adequate and suitable for the procuring agencies' needs and the requirements of the project, in a cost-effective manner, taking into account the total costs of ownership and operation as well as initial acquisition costs. Specifications must permit maximum practicable competition consistent with this purpose. Specifications are to be drafted with the objective of clearly describing the procuring agencies' requirements (Procurement of Construction—Specifications [Administrative Rule R23-1-55](#)).

There are three general types of specifications used in preparing contracts for equipment, supplies, or construction—(1) functional or performance specifications, (2) design specifications, and (3) brand name or equal specifications. While these general types are described below, it is rare to find specifications that fit completely into just one of the above categories. Most specifications contain a combination of design and performance requirements and may include brand name or equal descriptions of components. Division of Facilities Construction and Management [Administrative Rule R23-1](#) "Procurement of Construction" is an excellent compliance document that school districts and charter school construction purchasing personnel should comply with at least as restrictive guidelines for their projects.

(1) Functional or Performance Specifications

Functional or Performance Specifications contain performance characteristics that are desired for the item or that identify how the item functions. The detailed design or exact measurements are not stated. A functional or performance specification is inherently risky. Performance specifications state the overall requirements so that each contractor may furnish its own item to meet the required performance. For example, a new boiler specification can simply call for a gas-fired hot water boiler that will produce 100,000 British Thermal Units (BTUs) per hour. It is easy to imagine a gas-fired boiler that can produce 100,000 BTUs per hour but it may also require continuous and costly maintenance.

(2) Design Specifications

Design specifications contain a description of the item desired as opposed to performance standards. Design specifications may be as detailed as needed. Depending on the nature of the item, the design specifications may contain precise measurements, tolerances, materials, product tests, quality control, and other detailed information—provided competition is not being limited to one product. The information furnished in the specification should be sufficiently detailed to ensure that all items manufactured to the specifications will be virtually the same. A detailed description of kitchen cabinets, giving dimensions, fastening details, materials, and hardware, illustrate this type of specification.

(3) Brand Name or Equal Specifications

Under this form of specification, clear and accurate product descriptions are developed. These descriptions must not contain features that unduly restrict competition. It may be necessary to describe technical requirements for materials and equipment by referencing brand name products in order to define performance or other salient requirements. *References to brand names must be followed by the words “or equal” and a description of the item’s essential characteristics so that competition is not restricted.* Specific brand names may be used only for establishing design and quality standards and only if there is no other reasonable method of designating the required quality of the item desired. When brand names or catalog numbers are used, inform the offerors that such references establish only a design or quality standard; in fact, any other products that clearly and demonstrably meet the standard are also acceptable.

LEAs should avoid incorporating a particular manufacturer’s specification as the project specification. This may give the appearance of restricting competition and suggest that other manufacturers’ products are at a disadvantage and may not be accepted. If the school district or charter school specifies a brand name cabinet for insurance, the essential key elements or features of the product should be stated. For example, if specifying kitchen cabinets with the key features of solid wood doors and plywood frames, then many available brands and styles of cabinets will meet the key criteria. Therefore, all of the brands meeting the designated criteria should be acceptable.

(4) Contractor-Developed Specifications

In order to ensure objective contractor performance and eliminate unfair competitive advantage, contractors funded to develop or draft specifications, requirements, statements of work, invitations for bid, or requests for proposals must be excluded from competing in the procurement of such projects. The only exception to this rule is if, prior to the solicitation, all respondents to solicitations are provided with materials and information made available to the contractor involved in matters pertinent to the solicitation.

[\(63G-6 Utah Procurement Code\)](#) UCA specifies that rules and regulations shall be promulgated—by the state, and in this case by LEAs, which are designated as Local Public Procurement Units—to govern the preparation, maintenance, and content of specifications for supplies, services, and construction required by the Local Education Agency (LEA). These rules and regulations must determine the extent to which a nonemployee who has prepared specifications

for use by the LEA may participate in any LEA procurement using such specifications.

(5) Chief Procurement Officer Duties in Maintaining Specifications

The school district or charter school chief procurement officer is required to prepare, issue, revise, maintain, and monitor the use of specifications for supplies, services, and construction. The chief procurement officer may enter into contracts with others to prepare construction specifications when there will not be a substantial conflict of interest. The chief procurement officer must also retain the authority to approve all specifications ([63G-6 Utah Procurement Code](#)).

All specifications must seek to promote overall economy and best use for the purposes intended and encourage competition in satisfying the LEA's and state's needs, and shall not be unduly restrictive. The requirements of this part regarding the purposes and nonrestrictiveness of specifications applies to all specifications, including—but not limited to—those prepared by architects, engineers, designers, and draftsmen for public contracts ([63G-6 Utah Procurement Code](#)).

(6) Utah Antitrust Law

The primary purpose of the antitrust laws is to protect interbrand competition. The [Utah Antitrust Act—76-10-911 – 926](#), UCA—identifies the legislative findings and purpose of the act:

The Legislature finds and determines that competition is fundamental to the free market system and that the ***unrestrained interaction of competitive forces*** will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress, while at the same time providing an environment conducive to the preservation of our democratic, political and social institutions.

The purpose of this act is, therefore, to encourage free and open competition in the interest of the general welfare and economy of this state by prohibiting monopolistic and unfair trade practices, combinations and conspiracies in restraint of trade or commerce and by providing adequate penalties for the enforcement of its provisions.
(emphasis added)

(7) Preference for Commercially Available Products

Recognized, commercially-available products must be procured wherever practicable. In developing specifications, accepted commercial standards are to be used and unique products must be avoided, to the extent practicable.

(8) Nonrestrictiveness Requirements

All specifications must be written in such a manner as to describe the requirements to be met, without having the effect of exclusively requiring a proprietary supply or construction item, or procurement from a sole source—where a rigid standard is specified and there are no allowed substitutions due to

the nature of the conditions to be met—unless no other manner of description will suffice. This may only be used when very restrictive standards are necessary and there is only one proprietary product known that will meet the rigid standards needed. In that event, a written determination must be approved by the school district or charter school chief procurement officer that it is not practicable to use a less restrictive specification. The written determination must be kept on file.

(9) Procedures for Developing Specifications

Specifications may designate alternate supplies or construction items where two or more design, functional, or proprietary performance criteria will satisfactorily meet school district or charter school requirements. The specification must also contain a nontechnical section to include any solicitation or contract term or condition—such as a requirement for the time and place of bid opening, time of delivery, payment, liquidated damages, and similar contract matters.

(10) Use of Proprietary Specifications

The school district or charter school chief procurement officer must seek to designate at least three brands as a standard reference and state that substantially equivalent products to those designated will be considered for award, with specific conditions of approval being described in the specification. Unless the chief procurement officer determines that the essential characteristics of the brand names included in the proprietary specifications are commonly known, he must include a description of the particular design, functional, or performance characteristics which are required.

*Where a proprietary specification is used in a solicitation, the solicitation must contain explanatory language that the use of a brand name is for the purpose of describing the standard of quality, performance, and characteristics desired and is **not** intended to limit or restrict competition.*

The school district or charter school must also solicit sources to achieve whatever degree of competition is practicable. If only one source can supply the requirement, the procurement shall be made in accordance with the most restrictive of DFCM Administrative Rule R23-1, “Procurement of Construction,” Section 25, “Sole Source Procurement” [R23-1-25](#):

R23-1-25 Sole Source Procurement.

(1) Conditions for Use of Sole Source Procurement.

The procedures concerning sole source procurement in this Section may be used if, in the discretion of the Director, a requirement is reasonably available only from a single source. Examples of circumstances which could also necessitate sole source procurement are:

- (a) where the compatibility of product design, equipment, accessories, or replacement parts is the paramount consideration;
- (b) where a sole supplier’s item is needed for trial use or testing;
- (c) procurement of public utility services;
- (d) when it is a condition of a donation that will fund the full cost of the supply, material, equipment, service, or construction item.

(2) Written Determination. The determination as to whether a procurement

shall be made as a sole source shall be made by the Director in writing and may cover more than one procurement. In cases of reasonable doubt, competition shall be solicited.

(3) Negotiation in Sole Source Procurement. The Director shall negotiate with the sole source vendor for considerations of price, delivery, and other terms.

(11) Rules Regarding Use of Functional or Performance Descriptions

Specifications shall, to the extent practicable, emphasize functional or performance criteria while limiting design or other detailed physical descriptions to those necessary to meet the needs of the school district or charter school. To facilitate the use of the criteria, LEAs must include as a part of their purchase requisitions the principal functional or performance needs to be met. It is recognized, however, that the preference for use of functional or performance specifications is primarily applicable to the procurement of supplies and services. This preference is often not practicable in construction, apart from the procurement of supply-type items for a construction project.

(12) Rules Regarding Brand Name or Equivalent

Brand name or equal specifications may be used when the procurement officer determines that a specification is in the school district's or charter school's best interest. Brand name or equal specifications must seek to designate as many different brands as are practicable as "or equal" references and shall state that products substantially equivalent to those designated will be considered for award. Unless the procurement officer authorized to finally approve specifications determines that the essential characteristics of the brand names included in the specifications are commonly known in the industry or trade, brand name or equal specifications must include a description of the design and functional or performance characteristics which are used in a solicitation, the solicitation must contain explanatory language that the use of a brand name is for the purpose of designating the standard of quality, performance, and characteristics desired and is **not** intended to limit or restrict competition.

Since use of a brand name specification is restrictive, a specification may be used when the procurement officer or designee makes a written determination. The determination may be in any form deemed acceptable to the chief procurement officer, as a purchase evaluation, or a statement of single source justification. The written statement must state specific reasons for use of the brand name specification.

The procurement officer must also seek to identify sources from which the designated brand name item or items can be obtained and must solicit sources to achieve whatever degree of competition is practicable. If only one source can supply the requirement, the procurement shall be made under [63G-6](#) of the Utah Procurement Code.

63G-6. Circumstances justifying award of contract without competition. A contract may be awarded for a supply, service, or construction item without competition when, under rules and regulations, the chief procurement officer, the head of a purchasing agency, or a designee of

either officer above the level of procurement officer determines in writing that:

- (1) there is only one source for the required supply, service, or construction item; or
- (2) the award to a specific supplier, service provider, or contractor is a condition of a donation that will fund the full cost of the supply, service, or construction item.

(13) Conditions for Use of Sole Source Procurement

Sole source procurement may be used only if a requirement is reasonably available from a single supplier. A requirement for a particular proprietary item does not justify a sole source procurement if there is more than one potential bidder or offeror for that item. Examples of circumstances which could necessitate sole source procurement are:

1. Where the compatibility of equipment, accessories, replacement parts, or service is the paramount consideration.
2. Where a sole supplier's item is needed for trial use or testing.
3. Procurement of items for resale.
4. Procurement of public utility services.

The determination as to whether procurement may be made as a sole source must be made by the school district or charter school chief procurement officer. Each request must be submitted in writing. The officer may specify the application of the determination and its duration. In cases of reasonable doubt, competition should be solicited. Any request that a procurement be restricted to one potential contractor must be accompanied by an explanation as to why no other will be suitable or acceptable to meet the need. The procurement officer must conduct negotiations, as appropriate, as to price, delivery, and terms.

(14) Facilities Construction Emergency Procurement

[63-56-411](#) UCA provides instructions for emergency construction procurement. This section of the Code states in part, "...when there exists a threat to public health, welfare, or safety under emergency conditions as defined in rules and regulations, the chief procurement officer, the head of a purchasing agency, or a designee of either officer may make or authorize others to make emergency procurements; provided that emergency procurements shall be made with as much competition as practicable under the circumstances. A written determination of the basis for the emergency and for the selection of the particular contractor shall be included in the contract file."

(15) Sole Source and Emergency Procurement Records of Contracts Retention

[Section 63G-6-421](#) UCA, "Records of Contracts Made," requires the chief procurement officer to maintain a record listing all contracts made under [Section 63G-6a-802](#) [Sole Source Contract without Competition] or [63-56-411](#) [Emergency Procurement] and must maintain the record in accordance with [Title 63G, Chapter 2, Government Records Access and Management Act \(GRAMA\)](#). The record must contain each contractor's name, the amount and type of each contract, and a listing of the supplies, services, or construction

procured under each contract. It is recommended the records be retained for six years and then destroyed.

(16) Documents and Documentation

It is extremely important to document your procurement determinations. In many cases documentation and archival retaining standards are required by statutes or administrative rules. Most procurement conflicts involve a lack of documentation. Utah State Archives suggests the following retention schedule for LEA purchasing records (see Schedule 7, Purchasing Records, page 54 to 60, [Utah School Districts General Retention Schedule](#)):

▶ Contract Purchasing Records	Retain for 6 years after expiration of contract
▶ Inventory Records	Retain for 1 year
▶ Invoices	Retain for 4 years
▶ Leasing Contract Files	Retain for 4 years after contract expires
▶ Price Quotation Files	Retain for 1 year
▶ Prior Payment Report	Retain for 3 years
▶ Purchase Order	Retain for 4 years
▶ Purchase Requisition Files	Retain for 4 years
▶ Real Estate Acquisition Files	Retain for 7 years after unconditional sale of property
▶ Receiving Documents	Retain for 2 years
▶ Requests for Proposals	Retain for 2 years after decision and then destroy
▶ Requisitions	Retain for 3 years after decision
▶ Service Agreement Records	Retain for 4 years after last payment
▶ Successful Bid Proposal Files	Retain for 4 years
▶ Tax Exemption Records	Retain for 3 years after period covered by related account
▶ Unopened Bids Proposal Files	Retain for 1 year
▶ Unsuccessful Bids Proposal Files	Retain for 2 years and then destroy

Additional information can be found at the [Utah State Archives web site](#).

Many documents and forms are available on the Utah [State Division of Purchasing and General Services web site](#) under "[Buyer Information](#)":

1. [Purchasing and Contract Forms](#)
2. [Division of Purchasing Policies/Rules](#)

The Division of Facilities Construction and Management (DFCM) web site (<http://dfcm.utah.gov>) also has many construction agreement standard documents such as architect, engineer, contractor agreements, etc: Go to "Reports and Documents" then to "[Standard Documents](#)."

(17) Statement of Interest and Qualifications (SOIQ)

The USOE has developed an [SOIQ template](#) for LEAs. The SOIQ is the solicitation used when selecting architects and engineers.

(18) Request for Proposal (RFP) Procurement Selections

The State Division of Purchasing has developed excellent guidance in the form of a request for proposal manual and template that is most helpful to LEAs—as Local Public Procurement Units—as they develop RFPs. Here is the link to the Division of Purchasing Policies/rules where you can select the [Request for Proposal \(RFP\) Manual](#).

(19) Construction Manager/General Contractor (CM/GC) Agreement

The USOE has developed a [CM/GC](#) template for use by LEAs.

(20) Cost Plus a Percentage of Cost Procurement Prohibited

Cost plus a percentage procurement is prohibited in Utah ([63G-6-416 UCA](#)). A cost-reimbursement contract may be used only when a determination is made in writing by the chief procurement officer that such contract is likely to be less costly to the school district or charter school than any other type or that it is impracticable to obtain the supplies, services, or construction required except under such a contract.

(21) Felony to Accept Emolument

It is illegal for any person working in a public capacity—whether for a state agency or a Local Public Procurement Unit like a school district or charter school—to ask for or accept compensation for their procurement process or decisions—see [63-56-1001 UCA “Felony to accept emolument”](#):

“Any person acting as a procurement officer for the state of Utah or any subdivision thereof, or who in any official capacity participates in the procurement of any supplies, services, construction, real property, or insurance for any such political units, is guilty of a felony if the person asks, receives, or offers to receive any emolument, gratuity, contribution, loan, or reward, or any promise thereof, either for the person’s own use or the use or benefit of any other person or organization from any person interested in the sale of such supplies, services, construction, real property, or insurance.”

It is also illegal for any person to offer compensation—see [63-56-1002 UCA “Felony to offer emolument”](#):

“A person who is interested in any way in the sale of any supplies, services, construction, real property, or insurance to the state of Utah or any political subdivision thereof, is guilty of a felony if the person gives or offers to give any emolument, gratuity, contribution, loan or reward, or any promise thereof to any person acting as a procurement officer, or who in any official capacity participates in the procurement of such supplies, services, construction, real property, or insurance, whether it is given for his own use or for the use or benefit of any other person or organization.”

Effective May 2013, legislative changes to the procurement code put in place graduated penalties to those found guilty of participating in this practice.

(22) U.S. Citizenship Verification

U.S. citizenship verification for all those contracting with an LEA is outlined in Utah Law [63G-12 “Utah Immigration Accountability and Enforcement Act.”](#) It requires LEAs to verify that ALL those they contract with (not just limited to construction), and all those they employ, are either legal U.S. citizens or are legally approved to be working in the United States.

(23) Federal Funds Used in Projects and Debarment Verification

Federal law requires LEAs to verify that those they contract with verify that those entering into contracts using federal funds have not been debarred through the Excluded Parties List System ([EPLS](#)).

7. Inspection Process

Revised June 2012

The School District Building Official (SDBO) or Charter School Board Building Officer (CSBBO) shall have direct administrative and operational control of all construction and renovation within the boundaries of the local education agency (LEA). The SDBO and CSBBO are authorized and directed to enforce all the provisions of the state-adopted building code ([UCA 58-56](#)). Here is a listing of the codes currently in use:

[Codes Adopted by the State of Utah as of July 1, 2010](#)

[Click here for Code Links](#)

The State of Utah has adopted amendments to the above codes. The amendments can be found at the [Utah Uniform Building Standards Act Rules, R156-56 \(Utah State Building Standards Utah Code, Title 58\)](#):

The Division of Facilities Construction Management (DFCM) has established basic design criteria for such items as snow load, wind speeds, and soil frost depths across the state:

[Snow Load, Wind Speed and Soil Frost Design Criteria for the State of Utah](#)

The SDBO and CSBBO are also responsible for coordinating with [local municipalities](#) and the [Utah State Office of Education \(USOE\)](#) to ensure that the appropriate documents are filed on all construction projects estimated to cost more than \$99,999, are required to report to the USOE because federal funds are used, and/or the Certificate of Occupancy will be issued by the USOE.

a. Building Code Inspection Guidelines

All construction or renovation that a school district or charter school owns or has assumed responsibility for and for which the school district authorizes work shall be subject to inspection by or under the administrative and direct operational control of the SDBO and CSBBO. All such construction work shall remain accessible and exposed for inspection purposes until approved by a building inspector appropriately and currently licensed in the State of Utah and ICC certified in the discipline the inspections take place under provisions of the state-adopted building code [Utah Uniform Building Standards Act Rules, R156-56](#) and ([UCA 58-56](#)). In addition, certain periodic, continuous and special inspections as well as structural tests and inspections are required as indicated by the design professionals preparing the plans and the information below.

(1) Required Inspections

Reinforcing steel or structural framework of any part of any building or structure shall not be covered or concealed without first obtaining the approval of the appropriate inspector, including special inspections, as applicable.

Protection of joints and penetrations in fire-resistive assemblies shall not be concealed from view until inspection takes place and covering items are approved.

(a) Foundation Inspection

Foundation inspections are to be made after excavations for footings are complete, any required reinforcing steel is in place, and all required gravel and/or structural fill is placed and approved through inspections and receives approval to proceed. For concrete foundations, any required forms shall be in place prior to inspection. All materials for the foundation shall be on the job site, except where concrete is ready mixed in accordance with approved nationally recognized standards, the concrete need not be on the job site. Where the foundation is to be constructed of approved treated wood, additional inspections may be required.

(b) Concrete Slab or Under-Floor Inspection

Inspections shall take place after all in-slab or under-floor building service equipment, any required reinforcing, conduit, piping accessories and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the sub floor.

(c) Sheathing and Shear Inspection

Sheathing and shear inspections are to be made after all wall, floor, roof and shear points have been fastened in place as per the required spacing and prior to the installation of any coverings. This inspection is important for the structural integrity of the building as the floor and roof diaphragms work with the vertical elements, such as shear panels, for the transfer of lateral loads to the footing/foundation system. At this phase all mechanical hardware should be in place such as hold-downs, straps, bolts, anchors, etc. This is predominately in wood construction. The structural engineer of record should perform a structural observation at this time and verify the construction conforms to his/her design and submit in writing to the SDBO or CSBBO that this is the fact. School District Building Officials and Charter School Board Building Officers are responsible to ensure also that an independent third party structural peer review should have taken place at 90 percent of plans completion as part of the plan review. See the section titled "[5. Plan Review/Value Engineering](#)" in this manual.

(d) Frame Inspection

Framing inspections are to be made after the roof, all framing, fire blocking and bracing are in place and all pipes, chimneys and vents are complete and the rough electrical, plumbing, heating, pipes, and ductwork are approved.

(e) Lath or Gypsum Board Inspection

Inspections shall be made after all lathing and gypsum board, interior and exterior, is in place, but before any plastering is applied or before gypsum board joints and fasteners are taped and finished.

(f) Final Inspection

The final inspection shall be made after finish grading and the building construction is completed and ready for occupancy. **Note: A pre-final inspection shall also be made each time a Temporary Certificate of Occupancy is being obtained.**

(2) Special Inspections

In addition to the required inspections, the school district or the project engineer or architect of record acting as the school district's or charter school's agent shall employ one or more special inspectors who shall provide inspections during construction of the following types of work:

- (a) Concrete—During the taking of test specimens and placing of reinforced concrete.
- (b) Bolts installed in concrete—Prior to and during the placement of concrete around bolts when stress increases are utilized.
- (c) Special moment-resisting concrete frame—For moment frames resisting design seismic load, the special inspector shall provide reports to the SDBO or CSBBO for the structural design and shall provide continuous inspection of the placement of the reinforcement and concrete.
- (d) Reinforcing steel and prestressing steel tendons—During all stressing and grouting of tendons in prestressed concrete. During placing of reinforcing steel and prestressing tendons for all concrete required to have special inspection.
- (e) Structural welding—During the welding of any member or connection that is designed to resist loads and forces required by the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)); during the welding of special moment-resisting steel frames; during the welding of reinforcing steel. In addition, nondestructive testing is required.
- (f) High-strength bolting—The inspection of high-strength A 325 and A 490 bolts shall be in accordance with approved nationally recognized standards and the requirements of the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)). While work is in progress, the special inspector shall determine that the requirements for bolts, nuts, washers and paint; bolted parts; and installation and tightening in such standards are met. Such inspections may be performed on a periodic basis in accordance with the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)). The special inspector shall observe the calibration procedures when such procedures are required by the plans or specifications and shall monitor the installation of bolts to determine that all plies of connected materials have been drawn together and that the selected procedure is properly used to tighten all bolts.
- (g) Structural masonry—For masonry, other than fully grouted open-end hollow-unit masonry, during preparation and taking of any required prisms or test specimens, placing of all masonry units, placement of reinforcement, inspection of grout space, immediately prior to closing of cleanouts, and during all grouting operations. For fully grouted open-end hollow-unit masonry during preparation and taking of any required prisms or test specimens, at the start of laying units, after the placement of reinforcing steel, grout space prior to each grouting operation, and during all grouting operations.

- (h) Reinforced gypsum concrete—When cast-in-place Class B Gypsum concrete is being mixed and placed.
- (i) Insulating concrete fill—During the application of insulating concrete fill when used as part of a structural system.
- (j) Spray-applied fire-resistive materials—As required by the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)).
- (k) Piping, drilled piers and caissons—During driving and testing of piles and construction of cast-in-place drilled piles or caissons.
- (l) Shotcrete—During the taking of test specimens and placing of all shotcrete and as required by the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)).
- (m) Special grading, excavation and filling—During earth-work excavations, grading and filling operations inspection to satisfy requirements of the [Utah Uniform Building Standards Act Rules, R156-56](#) and the state-adopted building code ([UCA 58-56](#)).
- (n) Smoke-control systems—During erection of ductwork and prior to concealment for the purposes of leakage testing and recording of device location. Prior to occupancy and after sufficient completion for the purposes of pressure difference testing, flow measurements, and detection and control verification.
- (o) Any other inspections deemed necessary that fall outside of regular inspection criteria.

The following Division of Facilities Construction and Management (DFCM) link provides a list of pre-qualified special inspection labs and inspections firms list that may be useful:

[DFCM Pre-Qualified Testing and Inspection Firms List](#)

The following three DFCM links provide Special Inspections data sheets that may also be helpful: a Code Analysis Form, Special Inspections Certification and Accreditation List, and Special Inspections Standard Cost Rates:

[DFCM Code Analysis Form](#)

[DFCM Materials Testing/Special Inspection Standards](#)

[DFCM Materials Testing and Special Testing Standard Cost Rate Sheet](#)

(3) Continuous and Periodic Special Inspections

Continuous special inspection means that the special inspector is on the site at all times observing the work requiring special inspections. Some inspections may be made on a periodic basis and satisfy the requirements of continuous inspection, provided this periodic scheduled inspection performed is outlined in the project plans and specifications and approved by the inspector of record, the architect or engineer, and the SDBO or CSBBO.

(4) Approved Fabricators

Special inspections required by the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)) are not required where the work is done on the premises of a fabricator registered and approved by the SDBO or CSBBO and has some program ensuring proper code compliance,

including sections are established where work is performed. The Division of Facilities Construction and Management (DFCM) has developed a list of [State of Utah Approved Fabricators](#) which may be helpful. Certification of registration shall be subject to revocation by the SDBO or CSBBO if it is found that any work done pursuant to the approval is in violation of the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)). The approved fabricator shall submit a certificate of compliance that the work was performed in accordance with the approved plans and specifications to the SDBO or CSBBO, and to the engineer or architect of record. The approved fabricator's qualifications shall be contingent on compliance with the following:

- (a) The fabricator has developed and submitted a detailed fabrication procedural manual reflecting key quality control procedures that will provide a basis for inspection control of workmanship at the fabrication plant.
- (b) Verification of the fabricator's quality control capabilities regarding the plant and personnel as outlined in the fabrication procedural manual. The verification shall be by an approved inspection or quality control agency.
- (c) Periodic plant inspections shall be conducted by an approved inspector or quality control agency to monitor the effectiveness of the quality control program.
- (d) It shall be the responsibility of the inspection or quality control agency to notify the approving authority in writing of any change to the procedural manual. Any fabricator approval may be revoked for just cause. Reapproval of the fabricator shall be contingent on compliance with quality control procedures during the past year.

(5) Structural Observations

Structural observation shall be provided when one of the following conditions exists:

- (a) The structure is defined as a specific Occupancy Category or other requirements defined by the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)).
- (b) When so designated by the architect or engineer of record.
- (c) When such observation is specifically required by the SDBO or CSBBO, or by the special inspector.

The school district shall employ the engineer or architect responsible for the structural design, or another engineer or architect designated by the engineer or architect responsible for the structural design, to perform structural observation as defined by the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)). Observed deficiencies shall be reported in writing to the SDBO or CSBBO, special inspector, contractor and the building inspector of record. The structural observer shall submit to the SDBO or CSBBO and the building inspector of record a written statement that the site visits have been made and identifying any reported deficiencies that, to the best of the structural observer's knowledge, have not been resolved.

(6) Nondestructive Testing

Welded, fully restrained connections between the primary members of ordinary moment frames and special moment-resisting frames shall be tested by nondestructive methods for compliance with approved standards and job

specifications. This testing shall be a part of the special inspection requirements of the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)). A program for this testing shall be established by the person responsible for structural design and as shown on plans and specifications.

As a minimum, this program shall include the following:

- (a) All complete penetration groove welds contained in joints and splices shall be tested 100 percent either by ultrasonic testing or by radiography.
- (b) Partial penetration groove welds when used in column splices shall be tested either by ultrasonic testing or radiography when required by the plans and specifications. For partial penetration groove welds when used in column splices, with an effective throat less than 0.75 inch (19.1 mm) thick, nondestructive testing is not required; for this welding, continuous inspection is required.
- (c) Base metal thicker than 1.5 inches (38 mm), when subjected to through-thickness weld shrinkage strains, shall be ultrasonically inspected for discontinuities directly behind such welds after joint completion.

Any material discontinuities shall be accepted or rejected on the basis of the defect rating in accordance with the (larger reflector) criteria of approved national standards.

(7) Prefabricated Construction

Unless otherwise specifically stated, all prefabricated construction and all materials used therein shall conform to all the requirements of the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)).

Prefabricated assembly is a structural unit, the integral parts of which have been built up or assembled prior to incorporation into the building, which should include, but not be limited to, the following information:

- (a) Test of Materials—Every approval of a material not specifically mentioned in the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)) shall incorporate as a proviso the kind and number of tests to be made during prefabrication.
- (b) Tests of Assemblies—The SDBO or CSBBO may require special tests to be made on assemblies to determine their durability and weather resistance.
- (c) Connections—All prefabricated assemblies must meet the design requirements of the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)) for connections to buildings.
- (d) Pipes and Conduits—See the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)) for design requirements for removal of material for pipes, conduit and other equipment.
- (e) Certificate and Inspection—Materials and the assembly thereof shall be inspected to determine compliance with the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)). Every material shall be graded, marked or labeled where required elsewhere in the code.

- (f) Certificate—A certificate of approval shall be furnished with every prefabricated assembly, except where the assembly is readily accessible to inspection at the site. The certificate of approval shall certify that the assembly in question has been inspected and meets all the requirements of the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)). When mechanical equipment is installed so that it cannot be inspected at the site, the certificate of approval shall certify that such equipment complies with the laws applying thereto.
- (g) Certifying Agency—To be acceptable under the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)), every certificate of approval shall be issued by an approved agency.
- (h) Field Erection—Placement of prefabricated assemblies at the building site shall be inspected by the inspector of record to determine compliance with the [Utah Uniform Building Standards Act Rules, R156-56](#) and state-adopted building code ([UCA 58-56](#)).
- (i) Continuous Inspection—If continuous inspection is required for certain materials where construction takes place on the site, it shall also be required where the same materials are used in prefabricated construction.

b. Other Inspection Guidelines: Plumbing, Mechanical, and Electrical

The SDBO or CSBBO is also responsible for plumbing, energy, mechanical and electrical ADA inspections, and any other inspections, in accordance with the International Plumbing Code (IPC), the International Mechanical Code (IMC), the National Electrical Code (NEC), the International Energy Conservation Code (IECC), and the Americans with Disabilities Act (ADA). Note: State code and rule requires all those providing inspections on K-12 public school construction projects hold current ICC certified and licensing in the state of Utah in the discipline the inspection takes place.

Although the SDBO and CSBBO have the authority and responsibility of determining actions taken, state code and rule do not allow for any approvals to be less than what is required in federal, state, and local laws, codes, rules, and guidelines.

(1) Plumbing Inspections

- (a) Underground plumbing inspections shall be made after trenches or ditches are excavated and bedded, piping installed, and before any backfill is put in place.
- (b) Rough-in inspection shall be made after the roof, framing, fireblocking, firestopping, draftstopping and bracing are in place and all sanitary, storm and water distribution piping is roughed-in, and prior to the installation of wall or ceiling membranes.
- (c) Final plumbing inspection shall be made after the building is complete, all plumbing fixtures are in place, properly connected and tested for leaks and defects, and the structure is ready for occupancy.

In addition, all new, altered, extended or repaired plumbing work and systems must be successfully tested and observed by the SDBO, CSBBO, or designee to disclose leaks and defects.

(2) Mechanical Inspections

- (a) Underground mechanical inspections shall be made after trenches or ditches are excavated and bedded, piping installed, and before backfill is put in place. When excavated soil contains rocks, broken concrete, frozen chunks and other rubble that would damage or break the piping or cause corrosive action, clean backfill shall be used.
- (b) Rough-in inspection shall be made after the roof, framing, fireblocking and bracing are in place and all ducting and other components to be concealed are complete, and prior to the installation of wall or ceiling membranes.
- (c) Final inspection shall be made upon completion and successful testing of the mechanical system.

(3) Electrical Inspections

- (a) Underground electrical inspections shall be made after trenches or ditches are excavated and bedded, wiring installed, and before backfill is put in place.
- (b) Rough-in inspection shall be made after the roof, framing, fireblocking and bracing are in place and all wiring and other electrical components to be concealed are complete, and prior to the installation of wall or ceiling membranes.
- (c) Final inspection shall be made upon completion and successful testing of the electrical system.

(4) Energy Inspections

- (a) Underground energy inspections shall be made after trenches or ditches are excavated and bedded, wiring installed, and before backfill is put in place.
- (b) Rough-in inspection shall be made after the roof, framing, fireblocking and bracing are in place and all wiring and other electrical components to be concealed are complete, and prior to the installation of wall or ceiling membranes.
- (c) Final inspection shall be made upon completion and successful testing of the energy system.

(5) ADA Inspections

Inspections should occur often enough to ensure compliance and be based on the latest (2010) ADA guidelines.

c. Foundations and Retaining Wall Inspections and Test

The classification of the soil at each building site must be determined. The SDBO or CSBBO may require that this determination be made by an engineer or architect licensed to practice as a soil classifier. The classification must be based on observation and any necessary tests of the materials disclosed by borings or excavations made in appropriate locations. Additional studies may

be necessary to evaluate soil strength, the effect of moisture variation on soil-bearing capacity, compressibility, liquefaction and expansiveness.

The soil classification and design-bearing capacity shall be shown on the plans. The SDBO or CSBBO may require submission of a written report of the investigation, which should include, but not be limited to, the following information:

- (a) A plot showing the location of all test borings and/or excavations
- (b) Descriptions and classifications of the materials encountered
- (c) Elevation of the water table, if encountered
- (d) Recommendations for foundation type and design criteria, including bearing capacity, provisions to mitigate the effects of expansive soil, provisions to mitigate the effects of liquefaction and soil strength, and the effects of adjacent loads
- (e) Expected total and differential settlement

The potential for seismically induced soil liquefaction and soil instability must be evaluated during the [geotechnical investigation](#). The geotechnical report shall assess potential consequences of any liquefaction and soil strength loss, including estimation of differential settlement, lateral movement or reduction in foundation soil-bearing capacity, and discuss mitigating measures. Such measures shall be given consideration in the design of the building and may include, but are not limited to, ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination of these measures.

When expansive soils are present, the SDBO or CSBBO, and/or design professional may require that special provisions be made in the foundation design and construction to safeguard against damage due to this expansiveness. The SDBO or CSBBO may also require a special investigation and report to provide these design and construction criteria.

The potential for liquefaction and soil strength loss shall be evaluated for a site peak ground acceleration that, as a minimum, conforms to the probability of exceedance. Peak ground acceleration may be determined based on a site-specific study taking into account soil amplification effects.

Please see Section Three, "[School Facility Site Selection](#)," in this resource manual.

d. Boiler and Pressure Vessel Regulations and Inspection

The Boiler and Pressure Vessel Safety program in Utah has been evolving since 1967. The first milestone occurred on July 1, 1967, when the Utah Legislature enacted the [Boiler and Pressure Vessel Act \(34A-7-101 to 105 UCA\)](#) and authorized the State Industrial Commission (now called the [Labor Commission of Utah](#)) to administer provisions of the Act. Then, in May 1978, the Utah Boiler and Pressure Vessel Rules and Regulations implemented the requirement that all boilers and pressure vessels installed in Utah after that date to be registered with the [National Board of Boiler and Pressure Vessel Inspectors](#) (National Board) and bear the National Board number. Finally, on

July 1, 1997, the State Industrial Commission was replaced by the [Labor Commission of Utah](#). Through its Division of Safety, the Labor Commission of Utah now enforces the provisions of the [Utah Code Annotated—Boiler and Pressure Vessel Act](#) (34A-7-101 through 105, UCA) and [Administrative Rule R616-2—Boiler and Pressure Vessel Rules](#).

The Utah Boiler and Pressure Vessel Act establishes the minimum standards for installation and operation of boilers and pressure vessels in Utah. The act also authorizes the Labor Commission of Utah to adopt rules to enforce the Act. The Boiler and Pressure Vessel Rules clarify boiler pressure vessel requirements. Like the Boiler and Pressure Vessel Act itself, these rules also have the force of law. The [Boiler and Pressure Vessel Rules](#) and the [Boiler and Pressure Vessel Compliance Manual](#) provide details as to how the Labor Commission of Utah, Division of Safety, has implemented the Utah Boiler and Pressure Vessel Act.

Under provisions of the Utah Boiler and Pressure Vessel Rules, all new boilers, pressure vessels, water heaters and storage tanks (unless otherwise exempt) must be designed, constructed, inspected, stamped and installed in accordance with the applicable [American Society of Mechanical Engineers \(ASME\)](#) Code Section or other codes and standards accepted by the [National Board](#). A copy of the pressure vessel Manufacturer's Data Report, signed by the manufacturer's representative and the National Board authorized inspector, must be filed with the National Board and, when requested, with the [Chief Boiler Inspector of Utah](#).

All boiler and pressure vessel installations, including reinstalled and secondhand boilers and pressure vessels, must be installed in accordance with the requirements of the [ASME Code](#) and the Utah [Boiler and Pressure Vessel Compliance Manual](#). Boiler installations must also comply with the [Controls and Safety Devices for Automatically Fired Boilers](#) (ASME CSD-1) when the boiler heat input is greater than 400,000 BTU, but less than 12.5 million BTU. Boiler installations with heat input greater than 12.5 million BTU must comply with [Standards for the Prevention of Furnace Explosions/Implosions in Single Burner Boilers](#) ([National Fire Prevention Association 8501](#)) or [Standards for the Prevention of Furnace Explosions/Implosions in Multiple Burner Boilers \(NFPA 8502\)](#) as applicable.

e. Final Inspection

Prior to the final inspection, the architect must assure that the project is complete and ready for inspection. Thus, the architect should be the only one who arranges for the final inspection, coordinating all the participants to be present. The following people must be in attendance at the final inspection:

- (a) Architect
- (b) General contractor
- (c) Project engineers
- (d) School District Building Official (SDBO) or Charter School Board Building Officer (CSBBO)
- (e) Fire sprinkler system contractor
- (f) Electrical contractor
- (g) Mechanical contractor
- (h) Fire alarm system contractor
- (i) Building Inspector

- (j) Representative from the State Fire Marshal's office
- (k) Representative from the local fire department (as applicable)
- (l) Representative from the local health department (as applicable)

A complete walk-through of the entire project is conducted, checking all items listed for the 70% completion inspection (see Section 5: "[Plan Review/Value Engineering](#)," Subpart (g.) "State Fire Marshal Inspections"). An inspection of the fire sprinkler system is conducted at this time, noting coverage and completeness of the riser. Testing is also conducted to insure the fire alarm system functions. The fire alarm system is completely checked for operation and adequate coverage; this also includes the twenty-four hour battery test. Emergency lighting and exit signs as well as door operation and hardware are checked. The mechanical systems are inspected and tested for shut down, exhaust or special function, including fire/smoke dampers. The kitchen hood fire suppression system is inspected and tested, including the fire alarm tie-in and fuel shut-offs. All special doors—such as roll-up doors, or horizontal folding doors—are inspected and tested. Inspectors also check to be sure appropriate certificates, where applicable, have also been obtained.

It is also important that a Key Plan—a flow plan showing the fire zones and the fire sprinkler plan—is installed next to the fire alarm control panel to aid the local fire department if there is a fire in the building.

The SDBO or CSSBO, the inspector of record, and the [State Fire Marshal's Office](#) will generate a written final inspection report and send it to the project architect. Fire clearance is only issued after all fire and life safety items previously listed as deficient are resolved appropriately.

The school district or charter school must understand that no occupancy is permitted without the certificate of fire clearance, the final inspection, and the issuance of an appropriate Certificate of Occupancy.

8. Emergency Preparedness Planning Guide for Utah Public Schools

Revised March 2013

1. PURPOSE

- 1.1. To provide guidelines to comply with Utah Code 53A-3-402 and 15A Chapter 5, International Fire Code (IFC) Chapter 4, Administrative Rule R277-400*, and all applicable Utah State Risk Management requirements. "School Emergency Response Plans" means policies and procedures developed to promote the safety and welfare of students, protect LEA (school district and charter school) property, or regulate the operation of schools during an emergency occurring within a district or a school, which assures the protection and safe care of students, staff, and patrons before, during, and immediately after a threatened or actual emergency or disaster.
- 1.2. To prepare personnel and students in every school and district and charter school support department, and to provide guidelines to take appropriate action in the event of a natural, technological, or security emergency or disaster.
- 1.3. To prepare school personnel for their roles in coordinating with the local emergency management agency to integrate the school facilities and resources into the community's overall emergency preparedness program.

2. POLICY

2.1. EMERGENCY PREPAREDNESS PLANNING AND RESPONSE

Effective planning, exercising, and response require the coordination, cooperation, and participation of school and support personnel, students, parents, guardians, and community organizations and individuals; therefore, the delegation of responsibility to one person is not appropriate.

2.1.1. The school district superintendents or charter school board chairs shall ensure the development and maintenance of a plan for each school and district support department as applicable that is consistent with the LEA plan while considering location, facility, budgets, and staff and support capabilities.

2.1.2. The LEA Emergency Manager shall coordinate LEA emergency preparedness efforts with community leaders and emergency management¹ agencies to assign

¹ For Rule R277-400, see Appendix A.

responsibilities and organize the planning process.

- 2.1.3. LEA principals and directors and support department heads shall ensure that comprehensive plans are reviewed at least annually and are kept current with:
 - (1) Growing school populations.
 - (2) Changes in physical plants.
 - (3) Technical advances.
 - (4) Changes in federal, state, and LEA education rules, codes, policies, and procedures.

2.2. SCHOOL DISTRICT EMERGENCY MANAGEMENT RESPONSIBILITIES

2.2.1. Superintendent's Responsibilities

The superintendent shall:

- (1) Appoint the District Emergency Manager.
- (2) Appoint a District Emergency Operations Team.
- (3) Appoint a District Emergency Preparedness Plan Committee that consists of the following members:
 - (a) District Emergency Manager (chair).
 - (b) School Emergency Manager/representatives (elementary, junior high, senior high, year-round, etc.).
 - (c) District Support Department Emergency Manager representatives.
 - (d) Public Information Officer (PIO).
 - (e) County and/or Local Government Emergency Management Agency Director/Coordinator.
 - (f) Health Department Representatives (i.e., county school nurse representative and environmental health representative).
 - (g) PTA (or district's parent volunteer group) Regional Safety Assistant.
 - (h) Parents, students, teachers, principals, and support staff.
 - (i) Others as needed.

2.2.2. District Emergency Manager Responsibilities

The District Emergency Manager shall:

- (1) Chair the District Emergency Preparedness Planning Committee.
- (2) Coordinate school and district support department emergency preparedness plans as applicable.
- (3) In time of disaster or emergency, coordinate the District Emergency Operation Team (EOT) with the County Emergency Operation Center (EOC).
- (4) Provide emergency procedures policy clarification to schools and district departments as applicable during an emergency or during drills and exercises.

2.2.3. Responsibilities of School Principals

School principals shall provide leadership for the



development of the school Emergency Preparedness Plan. School principals shall:

- (1) Serve as chairperson of the Emergency Preparedness Plan Committee if applicable. (The school principal shall appoint a person to act in his/her absence.)
- (2) Establish a School Emergency Preparedness Plan Committee that consists of the following members:
 - (a) School Emergency Manager (chair).
 - (b) Local government or county emergency management policy representative.
 - (c) School nurse.
 - (d) PTA (or applicable parental volunteer group) Safety Commissioner.
 - (e) Parents, teachers, and support staff (i.e., custodian, school foods manager, and secretary).
 - (f) Others as needed (may include students as appropriate).
- (3) Coordinate emergency operations with the District Emergency Manager.

2.2.4. Responsibilities of Facilities Managers for District Buildings Other Than Schools

District Facilities Managers for district buildings other than schools shall provide leadership for the development of the District Building Emergency Preparedness Plan. District Facilities Managers shall:

- (1) Establish a Building Emergency Preparedness Committee for the district building (other than a school) in which they are housed.
- (2) Serve as chairperson of the District Building Emergency Preparedness Plan Committee. (The Facilities Manager will designate a person to act in his/her absence.)
- (3) Establish a District Building Emergency Preparedness Plan Committee that consists of the following members:
 - (a) District Building Facilities Manager.
 - (b) District Emergency Manager.
 - (c) Building custodian.
 - (d) Representatives from departments housed in the building (i.e., maintenance, secretary, department heads).
 - (e) Others as needed.
- (4) Coordinate emergency operations with the District Emergency Manager.

2.2.5 Responsibilities of School Staff

- (1) School staff shall be responsible to provide individuals gathering in spaces such as auditorium, gymnasiums, little theaters, activity centers, multi-purpose rooms, cafeterias, etc., for noncontiguous programs, with an audible announcement not more than 10 minutes prior to the start of each program

to notify the occupants of the location of the exits to be used in the event of a fire or other emergency.

2.3. CHARTER SCHOOL EMERGENCY MANAGEMENT RESPONSIBILITIES

2.3.1. Charter School Board Chair's Responsibilities

The charter school board chair shall:

- (1) Appoint the Charter School Emergency Manager.
- (2) Appoint a Charter School Emergency Operations Team.
- (3) Appoint a Charter School Emergency Preparedness Plan Committee that consists of the following members:
 - (a) Charter School Emergency Manager (chair).
 - (b) Public Information Officer (PIO).
 - (c) County and/or Local Government Emergency Management Agency Director/Coordinator.
 - (d) Health Department Representatives (i.e., county school nurse representative and environmental health representative).
 - (e) PTA (or other parent volunteer group) Regional Safety Assistant.
 - (f) Parents, students, teachers, principals, and support staff.
 - (g) Others as needed.

2.3.2. Charter School Emergency Manager Responsibilities

The Charter School Emergency Manager shall:

- (1) Chair, or appoint a chair for, the Emergency Preparedness Planning Committee which consists of the following members:
 - (a) School Emergency Manager (chair).
 - (b) Local government or county emergency management policy representative.
 - (c) School nurse.
 - (d) PTA (or other parental volunteer group) Safety Commissioner.
 - (e) Parents, teachers, and support staff (i.e., custodian, school foods manager, and secretary).
 - (f) Others as needed (may include students as appropriate).
- (2) Coordinate the school emergency preparedness plan.
- (3) In time of disaster or emergency, coordinate the Emergency Operation Team (EOT) with the County Emergency Operation Center (EOC).
- (4) Provide emergency procedures policy clarification during an emergency, drills, and exercises.

2.3.3. Responsibilities of Charter School Directors

Charter school directors shall provide leadership for the

development of the school Emergency Preparedness Plan, and shall:

- (1) Shall appoint a person to act in his/her absence in emergency situations.
- (2) Serve as a member of the Emergency Preparedness Plan Committee.
- (3) Ensure that training, materials, coordination, etc., of Emergency Preparedness Plans are properly implemented.

2.4. RESPONSIBILITIES OF SCHOOL DISTRICT EMERGENCY PREPAREDNESS PLAN COMMITTEES

Emergency Preparedness Plan Committees shall participate in the development and review of District, School, and District Support Department Emergency Preparedness Plans as applicable.

2.4.1. District Emergency Preparedness Plan Committee

The District Emergency Preparedness Plan Committee shall review and approve all School and District Support Department Emergency Preparedness Plans using the criteria outlined in this policy.

2.4.2. School Emergency Preparedness Plan Committee

Consistent with the District Emergency Preparedness Plan, the School Emergency Preparedness Plan Committee shall prepare and review the School Emergency Preparedness Plan.

2.4.3. District Support Department Emergency Preparedness Plan Committee

Consistent with the District Emergency Preparedness Plan, each District Support Department Committee shall participate in the development and ongoing review of the Department Emergency Preparedness Plan.

2.5. RESPONSIBILITIES OF CHARTER SCHOOL EMERGENCY PREPAREDNESS PLAN COMMITTEES

Emergency Preparedness Plan Committees shall review and approve Emergency Preparedness Plans using the criteria outlined in this policy.

2.6. CRITERIA AND ORGANIZATION OF EMERGENCY PREPAREDNESS PLANS

Emergency Preparedness Plans shall be specific enough to give directions for immediate action, but flexible enough to allow for adjustments and change as unexpected situations develop.

2.6.1. Emergency Plan Format

Prepare plans using a loose-leaf format:

- (1) Print on one side of the page so that changes require less printing.

- (2) Outline using uncomplicated step-by-step procedures that are clear to someone unfamiliar with the plan.
- (3) Assign a standard procedure to a particular emergency response. (Example: The fire evacuation policy may apply to most situations requiring the evacuation of facilities.)
- (4) Furnish copies of the final plan and subsequent revisions to the district (for school districts) and city or county emergency manager, and include them in the preparation and exercising of school plans.

2.6.2. Preparation and Criteria of Emergency Preparedness Plan

Plans shall identify organization structure, criteria, and specific circumstances that require emergency procedures, including:

- (1) Legal responsibilities and authority.
 - (a) Ensure compliance with district or charter school plans and policies:
 - (i) Identify legal responsibilities.
 - (ii) Identify State Board Rule R277-400, "Emergency Preparedness," as authority for the plan.
 - (b) Identify continuity of the organization:
 - (i) Prepare specific instructions for back-up (i.e., if the principal or director is absent, then the vice principal or second in command; if the vice principal or second in command is absent, then a third party).
 - (ii) Include instructions for each specific job in the plan.
 - (c) Prepare and maintain emergency telephone numbers, including administrative chain-of-command and emergency services.
- (2) Plan coordination with community emergency program.
 - (a) Coordinate Emergency Preparedness Plans with the county and local government emergency management agencies for use of grounds, district equipment, supplies, and transportation during an actual or impending disaster/emergency.
 - (b) Coordinate plans with the American Red Cross for community use of school facilities, district equipment, and supplies during emergency/disaster situations.
 - (c) Conduct and coordinate exercises with the city and county emergency management agencies, and initiate emergency plan revisions identified in the drill evaluations.
- (3) Staff responsibilities and training.
 - (a) Assign emergency responsibilities to staff regarding individual capacities and normal service functions for each anticipated emergency situation.
 - (b) Cross-train staff and volunteers to prevent

- the plan from becoming nonfunctional if one or more persons are absent.
- (c) Require emergency preparedness training for all students and staff.
 - (d) Adapt emergency preparedness training to individual capabilities and limitations, including persons with disabilities.
 - (e) Provide orientation and annual in-service emergency preparedness training to staff and volunteers.
- (4) Preparation and warning response to emergency situations.
- (a) Prepare step-by-step warning and response for specific anticipated emergency situations.
 - (b) Prepare an emergency warning system that is in place and functional for informing the LEA population of the actual or impending danger.
- (5) Training, drilling, and exercising the plan.
- (a) Prepare education, training, and drills required of the LEA population to ensure effective operation of the plan.
 - (b) Integrate emergency preparedness material into the curriculum.
 - (c) Provide students with adequate educational services and supervision during school hours in an emergency.
 - (d) Employees shall be shall receive training in the contents of fire safety and evacuation plans and their duties as part of new employee orientation, and at least annually thereafter in fire prevention, evacuation and fire safety in accordance with IFC Sections 406.3.1 through, as follows:
 - (i) 406.3.1 Fire prevention training. Employees shall be apprised of the fire hazards of the materials and processes to which they are exposed. Each employee shall be instructed in the proper procedures for preventing fires in the conduct of his/her assigned duties.
 - (ii) 406.3.2 Evacuation training. Employees shall be familiarized with the fire alarm and evacuation signals, their assigned duties in the event of an alarm or emergency, evacuation routes, areas of refuge, exterior assembly areas and procedures for evacuation.
 - (iii) 406.3.3 Emergency lockdown training. Where a facility has a lockdown plan, employees shall be

- trained on their assigned duties and procedures in the event of an emergency lockdown.
 - (iv) 406.3.4 Fire safety training. Employees assigned firefighting duties shall be trained to know the locations and proper use of portable fire extinguishers or other manual firefighting equipment and the protective clothing or equipment required for its safe and proper use.
- (6) Emergency supplies and equipment.
 - (a) Provide procedures for requesting funds for school emergency preparedness programs.
 - (b) Provide for procurement, storage, and maintenance of emergency supplies, equipment, and program instruction materials.
 - (c) Provide procedures for:
 - (i) Periodic safety checks of LEA facilities.
 - (ii) Review of school construction and renovation projects for safety and shelter features.
 - (iii) Requesting funds for these projects.
- (7) Review and revision of the plan.
 - (a) Provide procedures for formal approval and review of Emergency Preparedness Plan Compliance reports from schools and school district support departments as applicable (i.e., an accountability plan).
 - (b) Provide procedures for formal approval and regular review of:
 - (i) School and department emergency preparedness plans.
 - (ii) School and school district department evacuation and sheltering plans.
 - (iii) School and district department reports of sheltering deficiencies.

2.6.3. School Emergency Preparedness Plan

In addition to the criteria listed under 2.6.1., 2.6.2., and 2.6.3., the School Emergency Preparedness Plan shall include the following:

- (1) School evacuation plans for:
 - (a) Identification of evacuation assembly plan areas both in and outside of school buildings.
 - (b) Identification of shelter or protection areas.
 - (c) Reporting school-sheltering deficiencies to the School District or Charter School Emergency Manager.
 - (d) Periodic safety checks of school facilities.
- (2) Emergency Preparedness Plan orientation for all

- students.
- (3) Annual procedures for informing parents and guardians of school Emergency Preparedness Plans and revisions.
 - (a) Schools shall have a method by which parents and the public can be notified of school emergency situations.
(Arrangements with local radio and television stations to broadcast emergency bulletins should be established by the LEA.)
 - (b) At the beginning of each school year, parents and staff shall receive a written summary of relevant sections of school district and/or schools plans that apply to the school.
 - (c) The plan shall contain measures that shall ensure that, during an emergency, school children receive adequate educational services and supervision during school hours and that, under extraordinary circumstances when parents cannot be notified, the administration shall act according to the School District or Charter School Emergency Preparedness Plan.

2.7. HAZARD ANALYSIS

The hazard analysis generates the basis upon which the Emergency Preparedness Plan shall develop, and provides implementation procedures for the analysis of natural, technological, and security hazards likely to occur in the school area, as well as assessment of facilities and available resources both material and human.

2.7.1. Performing a Hazard Assessment

The first step is to perform a hazard assessment and determine which natural and human-caused hazards threaten the school.

- (1) Begin with a building and site assessment. Examine the grounds with any previous or current use(s) in mind: old foundations, slopes or embankments that could cave in or slide.
- (2) Check neighboring areas for hazardous vegetation, buildings, or activities.
 - (a) The city/county Emergency Management Director may help with the hazard assessment.
 - (b) The Local Emergency Planning Committee (LEPC) can provide information on hazardous materials' threats.
- (3) The Utah State Office of Education (USOE) can provide credible locations and references in developing assessment criteria.
- (4) Utah State Risk Management can provide additional information to assist in determining and

- mitigating hazards. This may include measures that could affect insurance premiums.
- (5) The National Weather Service station in the area could provide climatic data on general and unique weather patterns.
 - (6) Another good idea is to research the history of natural, technological, and security hazards.
 - (a) Local historical clubs, emergency services agencies, libraries, and newspaper files are good sources of information.
 - (b) Do not overlook the elderly, who can provide the oral history of past events; research projects can involve students.
 - (7) Make a vulnerability assessment. With the assistance of the local government emergency management director, determine the vulnerability of people, property, and the environment to the various hazards.
 - (a) Assess the risk involved, assigning a probability that the hazard will occur based on its severity using measurements and/or judgment.
 - (b) Assign resources to those hazards that pose the highest risks.

2.8. COMPONENTS OF AN ALL-HAZARD EMERGENCY PREPAREDNESS PLAN

2.8.1. Maps and Floor Plans

- (1) Maps of the community, school site and school floor plans provide summaries of the natural and manmade features of the area. Topographic maps and street maps can be used to assess the vulnerability of the school to floods, landslides, forest fires, and transportation accidents involving hazardous materials. The State Risk engineer can verify any risks related to federal flood plains information, as well as increased risks related to seismic classification.
- (2) Floor plans and site plans of the school facilities offer planners a summary of building features in order to:
 - (a) Identify shelter areas.
 - (b) Plan evacuation routes to avoid hazardous areas (boiler rooms, wooden stairwells, dead-end corridors, etc.).
 - (c) Use building safety features such as firewalls.
 - (d) Locate gas, water, electrical shut off, underground gas lines, and fire suppression equipment.
 - (e) Locate chemical storage areas and other areas in the facility that potentially hazardous items are located.

2.8.2. School and School District Organizational Charts

Organizational charts with telephone numbers are valuable during planning activities or actual emergencies.

2.8.3. School and School District Property Inventory

Evaluation of inventory may reveal equipment that must be considered a hazard.

2.8.4. Community Resources

Each school shall have a written plan for the organized use of community resources, including:

- (1) Temporary shelter for students or for classrooms.
- (2) Human resources such as emergency management officials, firefighters, and law enforcement officials to speak to student groups, conduct training workshops for school staff members, and give instruction to adults.

2.8.5. School Call-Up Lists

Develop and maintain a list of names, address, and phone numbers for staff and emergency services personnel. Provide a pocket card with this information to each school staff member in compliance with LEA records access and management policy. It is suggested that schools to have a parent/guardian "call-down tree" if notification of parents is necessary.

2.8.6. Warning and Communications

- (1) Train school personnel to know how warnings are transmitted, received, and disseminated (i.e., e-mail, websites, radio, television, weather radios, etc.).
- (2) Each school should test the effectiveness of existing equipment and, if necessary, consider getting emergency communications equipment. (For example, if the only means of communication is telephones, staff should be aware that the demand for lines is great during an emergency.)
- (3) Each school should have an alternate warning system to alert the entire complex (inside, outside, unconnected buildings, and play areas) when there is a power failure.
- (4) To receive information from the Emergency Broadcast System, each school should have a battery-operated and back-up radio. Program to respond to weather, Amber Alerts, HAZMAT (industry hazardous material) and other emergency notifications.
- (5) Each school should frequently test emergency communications systems.
- (6) LEAs should address the use of wireless/mobile communication devices.

2.8.7. Transportation

Emergency procedures often require transportation at irregular hours. Consider the following:

- (1) The number and capacity of LEA-owned and/or contract buses available for an immediate or delayed response to an emergency call.
- (2) All bus drivers and alternates, means of contacting them, and those expected to respond to an emergency call.
- (3) The number of students (and staff) who travel each regular and special education bus route.
- (4) Predetermined alternate routes.
- (5) Location and capacity of emergency shelters along routes, alternates, or within areas.
- (6) Alternate or optional stops to decrease the time in which buses could cover the bus routes.
- (7) Provision of emergency transportation to students who normally walk.
- (8) The time required to complete transportation operations under normal conditions.

2.8.8. Staff Training and Education

- (1) Training and education are essential to an effective response in time of emergency. Require pre-emergency training for each person assigned emergency duty.
 - (a) Provide instruction as part of a continuous training program.
 - (b) Training should alert staff members to relevant hazards and provide them with measures to protect life and property.
 - (c) Training should include understanding of warnings and public information announcements.
- (2) Utilize exercises, drills and tests as vital parts of such training once the staff has been educated as to the purpose of the events and the respective roles. Use workshops and in-service training periods to train the individual and the school population.

2.8.9. Exercises and Drills

- (1) Use city or county emergency manager to exercise plans. City or county emergency managers can be very helpful in preparing the school plans and in exercising them.
 - (a) Furnish a copy of the final plan to the district and city or county emergency manager.
 - (b) When changes are made, send them to the LEA and city or county emergency manager.
- (2) Exercise Objectives
The objectives of your exercise should be:
 - (a) Specific.
 - (b) Positive results-oriented.

- (c) Measurable.
- (d) Realistic and challenging.
- (3) Elements of an Exercise Activity
 - There are five elements of an exercise activity.
 - (a) Orientation Seminar
 - (i) Introduce or refresh participants on emergency plans and procedures.
 - (ii) Lecture, panel discussion, media presentations, or talk-through.
 - (iii) Can involve all levels of personnel.
 - (iv) Review of past cases of lessons learned.
 - (b) Drill
 - (i) Tests single emergency response function.
 - (ii) Involves actual field response.
 - (iii) Effectiveness lies in focus on a single or relatively limited portion of the overall response system to evaluate and improve it.
 - (c) Table-Top Exercise
 - (i) Actions taken and discussions based on a described emergency situation, plus a series of messages to players.
 - (ii) Practice problem solving for emergency situations.
 - (iii) Discussion and critique of appropriateness of actions taken and decisions made.
 - (iv) Participants practice a coordinated, effective response.
 - (v) Permits breaks before new messages are delivered to discuss proper response.
 - (vi) Involve policy and/or coordination personnel.
 - (d) Functional Exercise
 - (i) Simulation of an emergency that includes a description of the situation, a timed sequence of messages, and communication between players and simulators.
 - (ii) Emergency Operations Center (EOC) members practice a coordinated, effective response in a time-pressured, realistic emergency situation.
 - (iii) Individual and system performance is evaluated.
 - (iv) Involve policy and coordination personnel.
 - (e) Full-Scale Exercise
 - (i) Adds a field component that interacts with a functional exercise through simulated messages.

- (ii) Tests the deployment of a seldom-used resource.
- (iii) Involve policy, coordination, operations, and field personnel.

2.8.10. Community Catastrophe and the School as Emergency Shelter

- (1) Accidents, fires, explosions, or industrial chemical spills occurring off school property may indirectly affect or become a threat to students, staff, or school buildings.
 - (a) They may also disrupt transportation routes, communications systems, or destroy residential areas served by the school.
 - (b) School policies governing evacuation, transportation, and early or late dismissal procedures may be appropriate in response to such a disaster.
- (2) Guidance by local government emergency service authorities shall generally provide emergency guidance to the School District or Charter School Emergency Manager.
 - (a) Only in extreme circumstances where the school becomes isolated by a total transportation and communications breakdown shall the principal/director be solely responsible for emergency action, unless this has already been established as part of the plan procedure.
 - (b) In these circumstances, the principal/director shall exercise his/her best judgment until communications are restored.
- (3) Use of School Facilities for Shelters
 - (a) While the local government has the overall responsibility to protect the population, the American Red Cross can be expected to establish, manage, and coordinate shelter/mass care operations within its capability. During an emergency or disaster, temporary shelter may be needed by citizens evacuated or left homeless.
 - (i) The School District or Charter School Emergency Manager shall coordinate use of district facilities, such as school buildings, for shelter/mass care use during an emergency or disaster as provided by the inter-local agreement.
 - (ii) At the direction of the School District or Charter School Emergency Manager, schools shall cooperate with the local or county government that shall manage and coordinate all shelter/mass care activities until the American Red Cross arrives.
 - (iii) Best practice is to have a Memo of

Understanding (MOU) in place and relationships established as soon as possible to help ensure a smoother transition when an emergency occurs.

- (b) School emergency managers shall coordinate with the School District or Charter School Emergency Manager and American Red Cross Disaster Service personnel to ensure that building surveys and agreements for use are in place.
 - (i) All school Emergency Managers shall maintain an inventory of available space and an assessment of the capacity of the facilities to accommodate disaster victims and provide annual inventory updates as requested by the District Emergency Manager.
 - (ii) The School District or Charter School Emergency Manager shall coordinate updating facilities and supplies information with the American Red Cross and the county emergency information with the American Red Cross and the county Emergency Manager.
 - (iii) LEA and school contact names and phone numbers shall be kept current as needed by all concerned.
- (c) School district and charter school personnel are encouraged to participate in training courses dealing with sheltering and mass care to prepare them for service in their schools and communities as volunteer workers. Courses are offered, usually at no charge by:
 - (i) The American Red Cross.
 - (ii) Local, county, and state government, as well as through FEMA (Federal Emergency Management Association). The USOE can often provide additional resources for training.

2.9. RESPONSIBILITIES OF LEA AND COMMUNITY STAFF

2.9.1. School Teaching and Support Staff

The school teaching and support staff shall:

- (1) Participate in developing the School Emergency Preparedness Plan.
- (2) Participate in emergency preparedness in-service training programs.
- (3) Receive training in skills needed when working with children and coworkers under the stress of an

- emergency situation.
- (4) Train in first aid procedures.
- (5) Provide instruction and practice in emergency preparedness and survival techniques appropriate to grade level.
- (6) Provide ongoing leadership training and activities that encourage student confidence in their abilities to care for themselves and be of help to others during an emergency, including a period of enforced confinement.
- (7) Be prepared to assist students and staff who have disabilities.

2.9.2. Community Relations Department (as applicable)

The community relations department shall:

- (1) Participate in developing the School Emergency Preparedness Plan.
- (2) Provide leadership for effective communication procedures.
- (3) During an emergency:
 - (a) Establish a communication center as a single point of contact for the media and public.
 - (b) At the direction of the school district superintendent or charter school board chair, identify an LEA spokesperson.

2.9.3. Custodial Staff

The custodial staff shall:

- (1) Participate in developing the School Emergency Preparedness Plan.
- (2) Participate in emergency preparedness in-service training, school drills, and exercises.
- (3) Train in first aid procedures.
- (4) Report structural defects and safety hazards to the school emergency manager.
- (5) Identify shutoff valves and switches for gas, oil, water, and electricity.
- (6) Post charts, or work with the appropriate LEA personnel to obtain charts to post, in the school that identify shutoff valves and the location of protective equipment for use by personnel in an emergency.
- (7) Instruct all school staff, or work with the appropriate LEA personnel to obtain proper training, in the use of fire extinguishers and other emergency equipment.
- (8) Maintain an inventory of tools and equipment.
- (9) Advise the school Emergency Preparedness Planning Committee of hazardous and protected areas of school facilities, available emergency equipment, supplies, and alternate power sources.
- (10) Maintain adequate toiletry supplies for emergency use.

2.9.4. Facility Planning, Construction, and Maintenance Personnel (as applicable)

Facility planning, construction, and maintenance personnel or contracted professionals with the proper expertise shall:

- (1) Report any structural defects.
- (2) Identify shutoff valves and switches for gas, oil, water, and electricity, and post charts for other personnel to use in an emergency.
- (3) Provide a cutoff for steam/gas lines in shelter areas.
- (4) Provide for emergency operation of ventilation systems.
- (5) Post locations to all protective equipment.
- (6) Instruct LEA staff in the use of fire extinguishers.
- (7) Maintain an inventory of tools and equipment.
- (8) Advise the School District or Charter School Emergency Preparedness Plan Review Committee of hazardous and protective areas of LEA facilities, available emergency equipment, and alternate power sources.

2.9.5. Transportation Personnel (as applicable)

The plan should address the following:

- (1) Driver certification/training/background checks.
- (2) Normal day-to-day transportation to and from schools
 - (a) Defined routes and stops (no deviations)
 - (b) No unauthorized stops/passengers (child or adult)
 - (c) Child behavior on bus
 - (d) Driver's SOPs for children's safety and supervision during equipment breakdowns and accidents
- (3) Obligations as a public transportation carrier, coordination with UDOT and FHWA on route safety issues (construction and maintenance)
- (4) Identification and maintenance of evacuation bus routes
- (5) Bus use for extracurricular activities-accountability and supervision
- (6) Transportation of students in other district vehicles (vans and cars)-accountability and supervision
- (7) Information related to acceptable routes should be referenced in the "Child Access Routing Plans."
- (8) Charter schools not providing contracted bus service for their students should have a plan in place to address the items in this section.

2.9.6. Transportation personnel (as applicable) shall:

- (1) Instruct children in emergency bus evacuation procedures.
- (2) Be prepared to render first aid.
- (3) Inform school administrators of changing route conditions, road construction projects, etc. that may be potentially hazardous or alter emergency

- transportation plans.
- (4) Keep emergency equipment and telephone numbers in the bus and ensure it is in good working condition.
 - (5) Carry out applicable transportation policies of the state and local boards of education.
 - (6) Be aware of emergency shelter facilities along routes and within local areas.
 - (7) LEAs shall, to the extent reasonably possible, provide educational services to school children whose regular school programs have been disrupted by an extended emergency such as widespread communicable disease, natural disasters, or extended utility disruptions.

2.9.7. Food Service Management Personnel (as applicable)

Food service management personnel shall adhere to state regulations that authorize the LEA Child Nutrition Programs to make USDA-donated foods available in case of emergency and disaster feeding. The following documentation of all commodities used is required:

- (a) Types of commodities used
 - (b) Quantities used
 - (c) Dates used
 - (d) Location of shelter or feeding site
 - (e) Number of people being sheltered and fed
 - (f) Cause or type of emergency/disaster
- (1) School food service management personnel shall be prepared for emergency and disaster feeding as follows:
 - (a) When possible, maintain adequate supplies of food and water for emergency use.
 - (b) Rotate supplies to ensure freshness.
 - (c) Train in mass feeding practices under emergency conditions in accordance with the School Emergency Preparedness Plan and the American Red Cross shelter regulations.
 - (d) Practice kitchen safety laws, rules, and regulations at all times.
 - (2) USDA will replace, in kind or in value, any Section 32 and 416 commodities properly authorized for use. If Section 6 commodities are released to the American Red Cross, it is responsible for the replacement.
 - (3) In order to get credit/replacement for commodities used in disaster feeding, it is necessary to obtain PRIOR approval of use from the LEA Child Nutrition Program.
 - (4) After the situation has stabilized, contact the Child Nutrition Programs office for further instruction and information.

2.9.8. LEA Administrative Staff

The LEA administrative staff shall:

- (1) Assist in development of Emergency Preparedness Plans.
- (2) Develop competency to carry out assigned emergency preparedness and response functions through participation in in-service training, school drills, and exercises.

2.9.9. PTA, Parents, and Guardians

PTA, parents, and guardians are encouraged to:

- (1) Participate in the development and implementation of the School Emergency Preparedness Plan.
- (2) Support emergency preparedness programs within the school.
- (3) Volunteer services in school emergency preparedness planning and during actual emergencies.
- (4) Provide input through organizations associated with the school.
- (5) Provide schools with current student emergency notification information.
- (6) Become knowledgeable of community and school Emergency Preparedness Plans.
- (7) Encourage coordination between local officials, businesses, and schools to maximize efforts in preparedness and response.
- (8) Encourage students to discuss, with their parents, the emergency preparedness and response techniques learned at school.
- (9) Receive training in emergency preparedness procedures appropriate for providing assistance to the school and community.
- (10) Practice emergency preparedness in the home to reinforce school training, provide models, and ensure family safety.

2.9.10. Students

- (1) Goals for students:
 - (a) Cooperate during emergency drills and exercises.
 - (b) Learn to be responsible for themselves and others.
 - (c) Develop awareness of natural, technological, and security hazards.
- (2) Goals for older students:
 - (a) Work through student body organizations, clubs, and associations to support the school emergency program. With the approval of the principal, this might include:
 - (i) Staging emergency awareness plays.
 - (ii) Taking group instruction in first aid.
 - (iii) Visiting emergency services facilities.
 - (b) Take an active role in school emergency response and be assigned a variety of tasks when properly trained. These might include:
 - (i) Caring for younger children.

- (ii) Assisting disabled classmates.
- (iii) Acting as messengers, guides, monitors, and patrols.
- (iv) Providing first aid assistance.
- (v) Performing clerical duties.
- (vi) Operating amateur radios, school switchboard, or other communications equipment.

2.9.11. Public Health Department and School Nurses

The public health department and school nurses should:

- (1) Participate in the development and implementation of the LEA and School Emergency Preparedness Plans.
- (2) Respond to designated school(s) during emergencies to render first aid, assist in triage and transportation of injured persons, and assist in sanitation measures in coordination with the Health Department and emergency management agencies.
- (3) Participate as health resource persons in faculty studies leading to emergency preparedness curriculum development.
- (4) Assist the principal/director in determining the need for emergency, medical, and sanitation supplies and equipment.
- (5) Assist in the training of faculty, staff, and students in first aid and sanitation procedures.
- (6) Coordinate school health service plans with those of the school, district, and the community.
- (7) Advise the school emergency managers on how to provide for physically and mentally disabled persons during emergencies.

2.9.12. Community

- (1) The community is a valuable resource for:
 - (a) Warning.
 - (b) Assistance.
 - (c) Consultation.
 - (d) Information.
 - (e) Coordination.
 - (f) Educational materials.
 - (g) Speakers.
 - (h) Other related activities.
- (2) These resources may come from:
 - (a) School district offices.
 - (b) American Red Cross.
 - (c) Individuals.
 - (d) State and federal government.
 - (e) City/county emergency management agencies.
 - (f) Churches.
 - (g) Clubs and organizations.
 - (h) Health Department.
 - (i) Mental Health Department.
 - (j) Emergency medical services.

- (k) Other educational facilities/libraries
- (l) Law enforcement.
- (m) Fire department.
- (n) Businesses.
- (o) Hospitals.
- (p) Other organizations as needed.

3. PLANNING GUIDELINES FOR SPECIFIC HAZARDS

3.1. COMMUNICATIONS PLAN FOR ANY HAZARD SITUATION

In any emergency situation, there are parties who have a legitimate need for information—families, news media, employees, and the public. If it is a major emergency, the demand for information will be intense. It is important to organize the gathering and dissemination of information. Avoiding conflicts in the information given, keeping media and families away from the immediate disaster area where they could hamper emergency control efforts, getting necessary information to the community while avoiding confusion or panic, sending accurate information from the disaster area, and establishing an information center are key components that lead to the success of any communications plan.

3.1.1. Communication Center

A communication center shall be established as a single point of contact for the media and public.

- (1) Should be established near the disaster scene if the media or public are likely to be present, or at the LEA office in less serious situations.
- (2) Communication tools are desired.
- (3) All media cameramen and reporters shall be directed to the center and communicate directly with the designated Public Information Officer (PIO).
- (4) Information shall be directed to the center regarding emergency cause, extent of damage, and community instructions.
- (5) Information shall be directed to the center regarding missing persons, and the names, ages, and condition of injured persons.
- (6) Information regarding the ongoing situation shall be processed and disseminated to families and media through the PIO.
- (7) An appropriate location for the media shall be identified.
- (8) A location for family members shall be identified as needed.
- (9) Telephone numbers or means of contact and location are to be given to key disaster staff immediately.

3.1.2. LEA Spokesperson (PIO)

An LEA spokesperson, or PIO, shall be identified.

- (1) The spokesperson shall be a senior LEA official

who will speak for the LEA and other agencies involved in the disaster. The spokesperson should be experienced in dealing with the media and knowledgeable about emergency plans.

- (2) At least two back-ups shall be identified for the spokesperson.
- (3) Information release shall be coordinated with the school district superintendent or charter school board chair.

3.1.3. Assess Ability to Communicate

- (1) Establish the ability to communicate public information early by telephone, television, radio, fax, mobile telephone, district cable channel, school PTA, community council or other parental volunteer group, calling networks, etc.
- (2) If situations are harmed by blanket media access, a media pool may be established identifying one television station, one newspaper, and one radio team for information dissemination that could be shared with other representatives.

3.1.4. Establishing Credibility with Media and the Public

- (1) Honesty is essential.
- (2) Provide equal access to information.
- (3) Gain accurate, detailed information, and then determine what is appropriate for public release.
- (4) Express concern for tragedy, strength for public confidence, assurance for future emergency management, and gratitude for emergency efforts.
- (5) Focus on helping citizens cope. Criticism may contribute to controversy.

3.1.5. Hazard Communication

- (1) A process shall be implemented at each facility , including regular training of staff related to hazard communication, including the following:
 - (a) Material Safety Data Sheets (MSDS) for all hazardous materials shall be either readily available on the premises as a paper copy, or where approved, shall be permitted to be readily retrievable by electronic access (IFC 407.2).
 - (b) Individual containers of hazardous materials, cartons or packages shall be marked or labeled in accordance with applicable federal regulations. Buildings, rooms and spaces containing hazardous materials shall be identified by hazard warning signs in accordance with Section 2703.5 (IFC 407.3).
 - (c) Persons responsible for the operation of areas in which hazardous materials are stored, dispensed, handled or used shall be familiar with the chemical nature of the

materials and the appropriate mitigating actions necessary in the event of a fire, leak or spill. Responsible persons shall be designated and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses and identification of the locations where hazardous materials are located, and shall have access to Material Safety Data Sheets and be knowledgeable in the site emergency response (IFC 407.4).

3.2. EMERGENCY EVACUATION

The Utah State Board of Education recognizes that existing threats of the occurrence of destructive disasters resulting from attack, internal disturbance, natural phenomena, or technological hazard could greatly affect the health, safety, and welfare of the students and employees of a school district or charter school. The school district superintendent or charter school board chair shall coordinate all aspects of any evacuation in compliance with LEA policy and guidelines developed in the Emergency Operations Plan.

3.2.1. LEA Emergency Preparedness Plan

The school district superintendent or charter school board chair shall develop LEA procedures for receiving and evaluating school evacuation plans, as applicable, that include:

- (1) An understanding of Incident Command System (ICS) and National Incident Management System (NIMS).
- (2) Training LEA personnel in the implementation of the Emergency Preparedness Plan, ICS, NIMS terminology (secondary backup for each part of the plan).
- (3) Evacuation drills.
- (4) Procurement and maintenance of essential emergency equipment at each school building.
- (5) Notification of the school district superintendent or charter school board chair, as applicable, when evacuation is necessary.
- (6) Evacuation of buildings for emergencies that do not cause the school building to become unsafe, such as teacher walk-out, epidemic, flood, etc.
- (7) Temporarily housing students when school is disrupted.
- (8) Evacuation of unsafe school buildings.
- (9) Development of written agreements with local agencies, churches, or private organizations for emergency use of their building facilities during evacuation emergencies.
- (10) Cooperation with the sheriff or other law enforcement agencies when they assume their

- legal authority in times of emergency evacuation.
- (11) A process for notifying the local health department as required when water, heating/cooling, sanitation, etc. may be disrupted.

3.2.2. Evacuation Procedure

School principals or charter school directors shall design emergency procedures that provide for flexibility and are easily understood by students, staff, and parents. The procedures would be adaptable to the PTA Block Plan, include an effective communications system, provide emergency power options, and provide for alternate sites.

- (1) The School Emergency Evacuation Plan shall include evacuation of an unsafe building and evacuation of a safe building. Follow procedures established for persons with disabilities.
- (a) Unsafe building evacuation, during such events as fire and earthquake.
- (i) When an alarm sounds or instruction to leave the building is given, everyone shall file out of the building in a quiet and orderly manner through the assigned or nearest unblocked exit.
- (a) Teachers shall take their class lists with them and lead students out of the building.
- (b) All staff members shall be well versed in all alternate routes.
- (c) Students shall not take any personal items.
- (d) Teachers shall follow established procedures to assist disabled students in evacuating the building (Section 3.5.).
- (e) Assigned staff shall check the restrooms, common areas, kitchen, and classrooms as they evacuate the building.
- (f) Assigned staff shall carry the school emergency equipment to a pre-designated area and notify the school district superintendent or charter school board chair of the evacuation.
- (ii) Once outside, teachers shall lead their classes to a pre-designated area a safe distance (300 feet recommended) away from the building.
- (a) The area must be free from hazards, such as overhead

- power lines, gas lines, and traffic.
- (b) Students shall remain quiet and orderly.
- (c) Teachers shall take roll and report any missing students (by name) to the principal/director or designee at the pre-designated location away from the building. It may be desirable to regroup children into neighborhood groups.
- (iii) Students who are not with their home-base classes when the alarm sounds shall exit the building with their supervisor or, if alone, leave through the nearest unblocked exit. Once outside they shall join their home-base classes.
- (iv) Vehicle traffic areas shall be kept clear at all times, and students should not enter these areas unless accompanied by a responsible adult.
- (v) The principal/director or designee shall report any missing persons to emergency response personnel such as the sheriff, police, or fire chief.
- (vi) Teachers shall be kept informed by megaphone announcement, flag, hand signal, or by runner. The electric bell system or public address system should not be used.
- (vii) When the building is determined to be unsafe, the principal/director shall evacuate the school site as follows:
 - (a) Release students to responsible adults according to local school procedures.
 - (b) Escort remaining children to an alternate site such as a church, city hall, another school, or school buses.
- (b) Safe Building Evacuation, during events such as teacher walkout, epidemic, high winds, chemical spill, terrorism, or snowstorm.
 - (i) Assigned staff shall notify the school district superintendent or charter school board chair of the need for evacuating the building and receive instructions on procedures to follow.
 - (ii) Teachers shall take their class lists with them and lead students to an assigned area of the building.

Students shall take personal items such as coats with them. It may be desirable to regroup children into neighborhood groups.

- (iii) Special provisions shall be provided to assist students with disabilities in evacuating the building. Assigned staff shall check the restrooms, common areas, kitchen, and classrooms as needed. Students shall remain quiet and orderly. Teachers shall take roll and report any missing students (by name) to the principal or designee.
 - (iv) Students who are not with their home-base classes when evacuation procedures commence shall join their home-base classes outside the building.
 - (v) A procedure to release students to responsible adults should be provided.
 - (vi) As needed, escort remaining children to an alternate site such as a church, city hall, another school, or school buses.
 - (vii) Provide school emergency equipment at the alternate site.
- (2) School/location fire evacuation plans shall include the following, as a minimum, in accordance with IFC 404.3.1:
- (a) Emergency egress or escape routes and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only.
 - (b) Procedures for employees who must remain to operate critical equipment before evacuating.
 - (c) Procedures for assisted rescue for persons unable to use the general means of egress unassisted.
 - (d) Procedures for accounting for employees and occupants after evacuation has been completed.
 - (e) Identification and assignment of personnel responsible for rescue or emergency medical aid.
 - (f) The preferred and any alternative means of notifying occupants of a fire or emergency.
 - (g) The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.

- (h) Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.
 - (i) A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.
- (3) Fire safety plans shall include the following, as a minimum:
- (a) The procedure for reporting a fire or other emergency.
 - (b) The life safety strategy and procedures for notifying, relocating or evacuating occupants, including occupants who need assistance.
 - (c) Site plans indicating the following:
 - (i) The occupancy assembly point.
 - (ii) The locations of fire hydrants.
 - (iii) The normal routes of fire department vehicle access.
 - (d) Floor plans identifying the locations of the following:
 - (i) Exits.
 - (ii) Primary evacuation routes.
 - (iii) Secondary evacuation routes.
 - (iv) Accessible egress routes.
 - (v) Areas of refuge.
 - (vi) Exterior areas for assisted rescue.
 - (vii) Manual fire alarm boxes.
 - (viii) Portable fire extinguishers.
 - (ix) Occupant-use hose stations.
 - (x) Fire alarm annunciators and controls.
 - (e) A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
 - (f) Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
 - (g) Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.
- (4) Lockdown plans shall include the following, as a minimum:
- (a) Be approved by the fire code official and include the following:

- (i) Initiation. The plan shall include instructions for reporting an emergency that requires a lockdown.
 - (ii) Accountability. The plan shall include accountability procedures for staff to report the presence or absence of occupants.
 - (iii) Recall. The plan shall include a prearranged signal for returning to normal activity.
 - (iv) Communication and coordination. The plan shall include an approved means of two-way communication between a central location and each secured area.
- (b) The training frequency shall be included in the lockdown plan. The lockdown drills shall not substitute for any of the fire and evacuation drills required in Section 405.2 of the IFC.
 - (c) The method of notifying building occupants of a lockdown shall be included in the plan. The method of notification shall be separate and distinct from the fire alarm signal.

3.3. BOMB THREATS

A bomb threat may be received at any time. Experience shows that over 95 percent of all written or telephoned bomb threats are hoaxes. However, there is a chance that a threat may be authentic. Appropriate action should be taken in each case to provide for the safety of students, staff, and facilities. The school district/charter school administration and school principal/director, in coordination with law enforcement officials, shall decide whether or not to evacuate the building and who should conduct the search for a suspected bomb. While the responsibility for action rests primarily with law enforcement authorities, the people who work in the building are most aware of what does or does not belong in or near it. Plans should be flexible enough to allow for discretion in administrative decision-making.

3.3.1. Preparation and Training

- (1) In continuing to provide a safe environment for students and staff:
 - (a) All rooms, storage areas, and miscellaneous spaces shall be kept locked.
 - (b) When staff members enter any space, they shall be alert to anything out of the ordinary and report it.
 - (c) Custodians shall secure each unoccupied area as cleaned, exited, etc.
- (2) A current master floor plan shall be kept at an

- appropriate location with appropriate access to designated individuals.
- (3) Bomb threat plans shall be coordinated with local law enforcement officials, fire departments, the LEA security office, and the LEA emergency management director as applicable.
 - (4) Bomb alerts shall be announced over the PA system in clear language.
 - (5) Staff shall be trained on receiving bomb threat calls or threatening letters.
 - (6) Bomb threat call procedures shall be posted close to all phones.
 - (7) Staff shall be trained on the psychological profile of bomb threat callers.
 - (8) Staff shall be trained on the general appearance and effects of homemade bombs.

3.3.2. Response

Upon receipt of a bomb threat call:

- (1) Remain calm.
- (2) Obtain as much information as possible from and about the caller:
 - (a) Listen to the caller carefully—do not interrupt.
 - (b) Try to take down the entire message as it is given.
 - (c) Try to keep the caller talking, getting information such as when the bomb will go off, where it is located, and even why it was placed.
 - (d) Try to get help from another staff person to let the principal/director know what is happening.
- (3) The school principal/director shall decide if an announcement shall be made over the P.A. system.
 - (a) This announcement will alert the staff to do a cursory search of their classroom/areas of responsibility.
 - (b) All should be instructed that if something is found or looks unusual, **don't touch it.**
 - (c) Report to the principal/director or designee the results of the search.
- (4) Notify the appropriate local law enforcement agency.
- (5) Notify the LEA security office, as applicable.
- (6) Notify the school district superintendent's office or charter school board chair of the threat and the procedures being followed.
- (7) After the caller has hung up the phone, the person who took the call shall fill out the LEA "Receiving a Bomb Threat" form with as much information as possible.
- (8) Evaluate the bomb threat based on the following information:
 - (a) Caller evaluation (use LEA Bomb Threat Form).
 - (b) Other threats recently received.

- (c) Local trouble or student unrest.
- (9) The principal/director, law enforcement, and LEA security personnel shall decide whether threat is real or a hoax.
 - (a) If a determination is made that the threat is real, LEA security or the law enforcement authority will contact the appropriate agencies for assistance in the bomb search and investigation.
 - (b) If the determination is that the threat is real and the building needs to be evacuated:
 - (i) Evacuate the building using fire drill warning and procedure.
 - (ii) Enact early dismissal or delayed opening policies as appropriate.
 - (c) If it is determined that the threat is real and the building should not be evacuated:
 - (i) Inform the staff and students that they are not to leave their room or area until told to do so.
 - (ii) There should be no one in the halls except as authorized by the principal/director, LEA security, or law enforcement personnel.
 - (d) If the threat is judged to be a hoax, a quiet search of facilities should still be made.
 - (e) Notify the school district superintendent's office or charter school board chair about the outcome of the bomb threat.
- (10) To ensure the release of appropriate information, only the designated spokesperson (PIO) shall release information to the news media and others seeking information.

3.4. CIVIL DISTURBANCE

Crises may be avoided or minimized through early recognition of problems and prompt response actions. The faculty and administration should establish rapport with students and provide an open atmosphere to encourage discussion of grievances and problems. The administration also must be aware of local situations that may generate civil disturbances within the schools through outsiders moving into student groups and inciting student participation.

3.4.1. Warning

- (1) For explosive situations, use clear language over the intercom that notifies teachers to initiate predetermined emergency procedures.
- (2) During situations of high tension or slow buildup, establish a discreet "messenger service" to keep faculty and staff informed of all developments.

3.4.2. Preparation

- (1) Create a committee of students that represents a cross-section of special interest groups, clubs, athletic groups and social, racial, or ethnic groups. Meet with them on a regular basis.
- (2) Create a close working relationship with the student government.
- (3) Establish control measures for disturbances and demonstrations with local law enforcement agencies.
- (4) Determine under what conditions:
 - (a) Outside assistance shall be called in.
 - (b) Plainclothes or uniformed police shall be used.
 - (c) Doors to rooms shall be locked or areas not affected shall be closed.
 - (d) Building(s) shall be evacuated by staff or on a controlled basis by law enforcement authorities.
 - (e) Free periods for staff members shall be canceled and staff assigned to areas where potential disturbances are developing.
 - (f) Selected students may be used to guard fire alarms or as “messengers” for teachers and other staff to relay information.
- (5) Organize a parental group that would voluntarily participate in attempts to calm disturbances in the school.
- (6) Faculty members should be aware that they can have a calming effect by exercising good judgment and reasoned action. Individual fear must be controlled and not communicated to students.
- (7) Consideration should be given, in a particularly serious situation, to having photographers available to photograph students and/or outsiders engaged in unlawful activity.
- (8) Establish procedures to deal with students who have violated school or state regulations. Include:
 - (a) Policy for reentry.
 - (b) Policy for conferences with parents.

3.4.3. Response

- (1) When a disturbance or demonstration seems imminent, notify:
 - (a) School district superintendent or charter school board chair.
 - (b) All faculty and staff.
 - (c) Students of any threat to their safety.
 - (d) Other schools in the area.
 - (e) Law enforcement officials.
- (2) Try to maintain normal operations by:
 - (a) Keeping students in classes and away from trouble spots.
 - (b) Containing the disturbance to one area.
- (3) Avoid verbal exchanges or arguments when a mob

- is present.
- (4) Always approach a group in pairs. Do not use physical force. Keep your hands off all students and/or outsiders unless physically attacked.
 - (5) Request police to remove outsiders.
 - (6) Record and report names (if known) of all students and outsiders involved in disturbance. Record and report details of all incidents to the principal/director.
 - (7) Arrange a meeting with the perpetrators of a disturbance away from the larger group, if one is involved.
 - (8) Secure building entrances.
 - (a) Guard utilities, boiler room, and fire alarms.
 - (b) Safeguard essential records.
 - (9) Keep switchboard clear for emergency calls.
 - (10) Regarding news media:
 - (a) Pre-assign a staff member (PIO) to handle news media.
 - (b) If necessary, provide a pressroom.
 - (c) Control use of cameras.
 - (d) Urge reporters to present a complete and accurate story of the disturbance rather than isolated inflammatory incidents.
 - (e) Seek media cooperation to help dispel rumors.
 - (f) Use the media to inform parents and the community of known facts and actions being taken.
 - (g) Seek the cooperation of the media in withholding information from the public if silence will quell the disturbance.
 - (11) Evacuate building(s) only if necessary for safety. Control is better maintained when students are kept separated into small groups.
 - (12) Close school only after every effort has been made to keep it open.
 - (a) Initiate emergency transportation policy.
 - (b) Closely supervise dismissal and loading of buses.
 - (c) When possible, release students in small groups rather than en masse.
 - (d) When possible, load and dispatch one bus at a time.
 - (e) As needed, request law enforcement and assistance to provide protection for students who walk home.
 - (f) Inform local police prior to closing to prepare them for possible disturbances within the area upon student release. Follow procedures established for persons with disabilities (see next section).

3.5. ASSISTING PERSONS WITH DISABILITIES

The difficulties experienced as a result of earthquake, fire, or other emergencies may be greatly exacerbated by the complication of

added preexisting student disabilities. The primary mitigating factor is the foreknowledge of the student disabilities.

3.5.1. Response to emergency situations with disabled youth:

- (1) Will parallel as nearly as possible the functions of the non-disabled student in each emergency type.
- (2) Refer to the handling of each type of emergency in the non-disabled sections (Sections 3.6., 3.7., and 3.8.).
- (3) Teacher and staff responsibility to the student will remain the same in each instance.
- (4) It is recognized that actions may take an extended amount of time.

3.5.2. Preparation

- (1) Recognize the additional difficulties introduced to the problem by disabilities.
- (2) Pre-plan to meet each situation.
 - (a) Prepare handling criteria for each individual according to need; i.e., medical, psychological, ambulatory, special movement needs.
- (3) Assign personnel as necessary to carry out evaluation, evacuation, and stabilization.
 - (a) Teachers
 - (b) Staff
 - (c) Students
- (4) Be prepared to coordinate efforts with emergency responders such as firefighters. Some students will have special movement requirements.

3.5.3. Medication

- (1) Extensive emergencies such as an earthquake may require medication for a period of time beyond the daily routine.
- (2) If possible, enough medication should be on hand for 24 hours.
- (3) Medical information on each student should accompany the student and be available for quick response.
- (4) Medication may need to be carried outside the building to be accessible.

3.6. EARTHQUAKES

Few areas in the world are free from the danger of earthquakes. Those who have experienced earthquakes can testify that even a mild tremor can be frightening if you are not informed of precautions to take for self-protection.

3.6.1. Warning

Earthquakes generally occur without warning. Seismologists can identify areas where earthquakes are

most likely to occur, but cannot yet predict the exact time and place. Specific hazard level for a facility can be obtained through the Utah Geologic Survey Department.

3.6.2. Preparation

- (1) Become aware of the geology of the area and locate faults that may be potentially hazardous.
- (2) Give students and staff earthquake safety information.

3.6.3. Response During an Earthquake

- (1) During the shaking:
 - (a) Keep calm and remain where you are. Assess the situation, and then act. Remember that falling or flying debris can cause injury or death.
 - (b) If indoors, stay there.
 - (i) Take cover under desks, tables, or other heavy furniture.
 - (ii) Take cover in interior doorways or narrow halls.
 - (iii) Stay away from windows and other glass objects and beware of falling objects.
 - (c) If outdoors, stay in the open.
 - (i) Move away from buildings if possible.
 - (ii) Avoid utility poles and overhead wires.
 - (iii) Stay away from trees.
 - (iv) Stay away from masonry walls.
 - (d) If in a bus:
 - (i) The driver should stop as quickly and safely as possible in an open area away from overpasses, roads, etc.
 - (ii) Passengers should stay in the bus.
 - (e) Follow procedures established for persons with disabilities (see Section 3.5.).
- (2) After the shaking:
 - (a) Check for injuries.
 - (b) Evacuate facilities and move to open areas away from buildings.
 - (c) Do not reenter buildings until authorities have checked them for possible structural damage, leaking gas lines, and other utility disruptions.
 - (d) Teachers should take roll to be sure all students are accounted for, and report to the principal/director.
 - (e) While inside buildings, do not use any open flames (candles, matches, etc.).
 - (f) Turn on the radio for latest bulletins. (The local emergency broadcast station—EBS—shall be identified in the plan.)
 - (g) Use discretion in implementing early or late

dismissal policy depending on communications, availability of transportation, and damage to school buildings, residential areas, and transportation routes.

- (h) Follow procedures established for persons with disabilities.

3.7. FIRE ALARM PROCEDURE

When a fire alarm is received on the security console, the following procedure shall be followed, ensuring compliance with the International Fire Code Chapter 4 and Utah Code 15A Chapter 5.

3.7.1. Occupied Building

When the alarm has been received, a designated person at the school must determine if the fire is real or a false alarm.

- (1) If the fire is real, the school-designated person shall notify the fire department by calling 911.
- (2) If the alarm is false, the designated person must notify security within one minute of the alarm notification that the alarm is false.
 - (a) If the security division does not hear from the school within a minute, they shall call the school to verify the alarm.
 - (b) If there is no answer at the school, security shall assume there is a fire and notify the fire department of the fire alarm.

3.7.2. Unoccupied Building

- (1) When a fire alarm is received and the building is unoccupied, the fire department shall be called by the security monitor immediately and notified.
- (2) The security monitors shall then call a responsible person from the school staff to respond to assist the fire department.
- (3) In addition, security shall notify the maintenance department supervisor of the alarm (night or day).

3.8. FIRE AND FIRE DRILL PROCEDURES

Fire exit drills shall be conducted regularly in accordance with the State Uniform Fire Code Section 13.301 and Utah Code 53A-3-402. Exception: During severe weather, with approval of the local fire chief, fire drills may be postponed.

3.8.1. Conduct at least two fire exit drills at the beginning of the school year and one fire exit drill each month while school is in operation. (See Administrative Rule R277-400.7.B. for required number of drills in a school year.)

3.8.2. When a school is preparing to have a fire exit drill, it shall

notify the school security office. This will keep security from calling the fire department when the alarm is not verified as a drill.

3.8.3. When an alarm has sounded, and a fire drill is not planned, staff at the school shall determine whether there is a valid fire. If a fire is found, the staff shall call 911, report it to the fire department, and evacuate the building.

- (1) When an alarm has sounded, and the staff has determined that it is false, they shall notify the security office within one minute, if possible, that the alarm is false. If the security office cannot contact the school, security will contact the fire department and have them respond to the alarm. If there is not a designated security office, the school shall contact the fire department, having them respond to the alarm.
- (2) Schools shall keep a log of fire drills listing date and time required to evacuate the building. This shall be recorded on the LEA computer as well.
- (3) Drills shall be executed so as to avoid distinction between drills and actual fires. Conduct drills:
 - (a) At different hours of the day or evening, during the changing of classes, when the school is at assembly, and so on as required in 408.3.3 of the IFC.
 - (b) During the changing of classes.
 - (c) When the school is at an assembly.
 - (d) During the recess or gymnastic periods.
- (4) If a drill is exercised when pupils are going up and down the stairways, as during the time classes are changing, the pupils shall be instructed to form a line and immediately proceed to the nearest available exit in an orderly manner.

3.8.4. Every fire exit drill shall be an exercise in school management for the principal/director, teachers, teacher assistants, and staff. The chief purpose of every drill is to have complete control of the class. The teacher shall form its ranks quickly and silently, and may halt it, turn it, or direct it as desired. As identified in 401.7 International Fire Code, evacuations made necessary by the unplanned activation of a fire alarm system or by any other emergency shall not be substituted for a required evacuation drill.

- (1) Great importance shall be laid upon the execution of each drill in a brisk, quiet, and orderly manner.
- (2) Running during drills shall be prohibited.
- (3) In case there are pupils incapable of holding their places in line while moving at a reasonable speed, provisions shall be made to have them taken care of by the more sturdy pupils, moving independently of the regular line of march.

3.8.5. Monitors shall be appointed from among teacher assistants and/or the more mature pupils to assist in the proper execution of all drills.

- (1) They shall be instructed to hold doors open in the line of march or close doors when necessary to prevent spread of fire or smoke.
- (2) There shall be at least two substitutes for each appointment to provide for proper performance in case of absence of the regular monitors.
- (3) The searching of restrooms or other rooms shall be the duty of the teachers or other members of the staff.
- (4) If the teachers are to do the searching, this should be done after they have joined their classes to the proceeding lines.

3.8.6. As all drills simulate an actual fire condition, pupils shall not be allowed to return to their lockers or other rooms to obtain clothing after the alarm has sounded, even when in homerooms, to avoid the confusion that would result in forming the lines and the danger of tripping over dragging apparel.

3.8.7. In accordance with IFC 408.3.4, each class or group shall assemble at a designated, predetermined point outside the building and remain there until a check is made to see that all are accounted for, leaving only when a recall signal is given to return to the building, or when dismissed. Such points shall be sufficiently far away from the building and from each other to avoid danger from any fire in the building, interference with fire department operations, or confusion between different classes or groups.

3.8.8. Where it is necessary for drill lines to cross roadways, signs reading “**STOP– SCHOOL FIRE DRILL,**” or equivalent, shall be carried by monitors to the traffic intersecting points in order to stop traffic during the period of the drill.

3.8.9. Fire exit drills in schools shall not include any fire extinguishing operations.

3.8.10. Signals

- (1) All fire exit drill alarms shall be sounded on the fire alarm system.
- (2) In order that pupils shall not be returned to a building that is burning, the recall signal shall be one that is separate and distinct from, and cannot be mistaken for, any other signals. Such signals may be given by distinctive colored flags, banners, or bullhorns.
- (3) Inspection
 - (a) It shall be the duty of principals/directors, teachers, custodians, and other staff or properly trained and designated volunteers

to inspect all exit facilities daily in order to make sure that all stairways, doors, and other exits are in proper condition.

- (b) Open-plan buildings require extra surveillance to ensure that exit paths are maintained clear of obstruction and are obvious.

3.8.11. Follow procedures established for persons with disabilities during fire drills (see Section 3.5.).

3.8.12. Emergency evacuation drills shall comply with 405 of the IFC as follows:

- (1) Required emergency evacuation drills shall be held at intervals outlined in 3.8.1.
- (2) Responsibility for the planning and conduct of drills shall be assigned to competent persons designated to exercise leadership.
- (3) Records shall be maintained of required emergency evacuation drills and include the following information:
 - (a) Identity of the person conducting the drill.
 - (b) Date and time of the drill.
 - (c) Notification method used.
 - (d) Staff members on duty and participating.
 - (e) Number of occupants evacuated.
 - (f) Special conditions simulated.
 - (g) Problems encountered.
 - (h) Weather conditions when occupants were evacuated
 - (i) Time required to accomplish complete evacuation.
- (4) Where required by the fire code official, prior notification of emergency evacuation drills shall be given to the fire code official.
- (5) Where a fire alarm system is provided, emergency evacuation drills shall be initiated by activating the fire alarm system.
- (6) As building occupants arrive at the assembly point, efforts shall be made to determine whether all occupants have been successfully evacuated or have been accounted for.
- (7) An electrically or mechanically operated signal used to recall occupants after an evacuation shall be separate and distinct from the signal used to initiate the evacuation. The recall signal initiation means shall be manually operated and under the control of the person in charge of the premises or the official in charge of the incident. No one shall reenter the premises until authorized to do so by the official in charge.

3.8.13. Note: In accordance with the International Fire Code – Chapter 4 – 401.8, it shall be unlawful to interfere with, attempt to interfere with, conspire to interfere with, obstruct or restrict the mobility of or block the path of travel of a fire

department emergency vehicle in any way; or to interfere with, attempt to interfere with, conspire to interfere with, obstruct or hamper any fire department operation.

3.9. FLOODS

3.9.1. Awareness

Many areas in Utah are subject to floods. Flooding may be caused by heavy rain or dam breaks. Even a small, innocent-looking creek can become a raging torrent capable of destruction. The School Emergency Preparedness Planner should coordinate with the local Emergency Management Director concerning failure of water storage facilities.

3.9.2. Warning

- (1) Except in the case of flash flooding, the onset of most floods is a relatively slow process, with buildup taking several days. Progressive situation reports are available from the National Weather Service (NWS).
- (2) Flash flood warnings are issued by the NWS to the public by radio and television. Many communities have a local flash flood warning system to assist in the dissemination of this information.

3.9.3. Preparation

- (1) Know the local history of flooding.
- (2) LEA transportation shall plan alternate bus routes to avoid flood-prone areas, particularly those areas with a history of flash flooding.
- (3) Bus drivers should be instructed of responsibilities during flash flooding, including:
 - (a) Not crossing a flooded bridge.
 - (b) Not traveling through a flooded area.
 - (c) Caring for children who cannot be delivered to their homes.
 - (d) Notifying the school office of observed hazardous conditions.
 - (e) Making provisions for students living in affected areas to be handled according to the request of parent or legal guardian as listed on the student enrollment card.
 - (f) Making special provisions for students who use modes of transportation other than those furnished by the LEA.
 - (g) Establishing procedures regarding class cancellation, late opening, and early dismissal, if the school is designated an emergency shelter in accordance with LEA policy.

3.9.4. Response

- (1) When weather conditions indicate an area may be affected, radio or television broadcasts should be monitored.
- (2) Prepare to:
 - (a) Evacuate students to homes immediately in accordance with pre-established school policy.
 - (b) Notify parents via radio, television, telephone, or e-mail.
 - (c) Notify bus drivers according to standard emergency transportation policy for early/late dismissal.
 - (d) Keep students at school or transport them to other evacuation points.
 - (e) Effect school cancellation or late opening policy.
 - (f) Shut off water to prevent contaminated water from entering the school supply.
 - (g) If school is a designated emergency shelter and time permits, check all supplies and provisions prior to emergency operations.
- (3) After a flood:
 - (a) Beware of contaminated food, water, broken gas lines, and wet electrical equipment, including following proper shutoff procedures prior to accessing an area.
 - (b) Resume classes only after designation of building safety by district school district superintendent or charter school board chair.
 - (c) Resume classes in pre-designated buildings if school facilities are damaged.

3.10. HAZARDOUS MATERIALS

Chances that a school may be affected by an accident involving a hazardous material carrier become greater with the continuing growth of the industry and the demand for fuel and chemicals.

3.10.1. Warning

Warning of a hazardous material incident outside of school facilities is usually received from the fire department, police department, or emergency management agency officials when such incidents occur sufficiently near the school to be a threat.

3.10.2. Preparation

- (1) The vulnerability of the school to hazardous material threats should have been determined during the hazard analysis. The city-county emergency management agency or the Title 111, SARA local emergency preparedness planning committee would know if the school is within the

risk zone for a hazardous material spill or release from a transportation route or a fixed facility. Hazards in the surrounding areas of a school facility should have been determined, evaluated, and mitigated as required in Utah Law prior to occupancy of the facility.

- (2) Schools shall plan for evacuations or the proper procedures to follow when time does not permit evacuation and sheltering the school population in place is required.
- (3) Ensure that adequate means have been established to notify the school authorities of the emergency notification of a hazardous material release or spill.
- (4) Rapid notification and warning systems are required to protect people in the immediate area when releases of gaseous chemicals, such as chlorine and ammonia, produce lethal clouds that move rapidly.

3.10.3. Response

- (1) Determine the need for evacuating the school population or sheltering in place.
- (2) To evacuate the area, move crosswind, never directly with or against, the wind that may be carrying fumes. Upon reaching a point of safety, call the roll.
- (3) Be prepared to render first aid.
- (4) Notify school district superintendent or charter school board chair.
- (5) The principal/director shall direct further action.
- (6) Students and staff shall not return to the school until the fire department or other appropriate emergency service officials and the principal/director have declared the area to be safe.
- (7) Initiate early/late dismissal as necessary.

3.11. SHELTER-IN-PLACE

Shelter-in-place simply means staying inside your home, business, school or other facility or seeking shelter in the nearest available building. During a release of toxic chemicals or emergencies involving hazardous materials where air quality may be threatened, in-place sheltering keeps you inside a protected area and out of danger.

If you are asked to shelter in-place, take the following actions:

- (1) Bring all students, faculty, staff, and guests inside the building.
- (2) Close all windows and lock doors in your school building you are occupying.
- (3) Close all drapes, shades, and shutters.
- (4) Ensure all ventilation systems are set to 100 percent recirculation so as not to draw outside air into the building. If this is not possible, turn off the system.

- (5) Close off any other known openings to the outside.
- (6) If possible, move to an aboveground room, not the basement, with the fewest windows and doors. If you have classroom 72-hour kits or something similar, take this with you to wherever you relocate.
- (7) If possible, force wet towels into the crack under the doors. Place tape around the cracks of doors, windows, exhaust fans or vents. If available, use plastic garbage bags to cover windows and ventilation outlets.
- (8) If you are told there is a danger to explosion, close the window shades to help avoid injury. Stay away from the windows.
- (9) Stay in your room and listen for instructions from the principal/director or other authorities.

3.12. MEDICAL EMERGENCIES

Injury and illness are the most common of all school emergencies. Every school shall be prepared to provide basic first aid, while summoning necessary emergency assistance.

3.12.1. Preparation

- (1) Establish and maintain a current list of emergency medical services' telephone numbers. Keep them posted by each phone in the building.
- (2) Encourage staff and students to take training in first aid, CPR, sanitation, and emotional support of children, families and adults during emergencies.
- (3) Maintain a current stock of first aid and sanitation supplies and create a plan for distribution of these supplies in case of a mass disaster. A list of suggested items is provided at the end of this section.
- (4) Establish and maintain a current list of staff members qualified to administer first aid and where they are likely to be found during the school day.
- (5) Establish and maintain a list of students and staff with known medical problems, including disabilities, and instructions for emergency actions.
- (6) Establish and maintain a general file of students' home telephone numbers, parents' business telephone numbers, and names and numbers of adults authorized to make decisions regarding their child's emergency medical treatment if parents cannot be reached.
- (7) Establish and maintain a general file of emergency phone numbers for all faculty and staff.
- (8) Request from the school district superintendent or charter school board chair a statement of legal responsibilities and liabilities, including insurance restrictions.
- (9) The Emergency Response Plan should comply and coordinate with existing and/or developing guidelines from the Centers for Disease Control, state and county public health agencies concerning

communicable diseases including, but not limited to, pandemic infections. The plan should provide for yearly training of all LEA personnel and students on routine appropriate infection control practices to minimize the spread of communicable disease/infections.

- (10) As part of the School Emergency Response Plan, designate a location within or close to the school that could be used as a temporary morgue.

3.12.2. Response

- (1) Non-Critical Illness or Injury
 - (a) Administer first aid.
 - (b) Notify parent(s)/guardian(s), if possible, and request that they provide transportation for the student to their residence or a medical facility.
 - (c) If parents cannot be contacted, take action in accordance with predetermined school procedures.
- (2) Critical Illness or Injury
 - (a) Administer first aid to the extent possible.
 - (b) Call 911 or an ambulance if the situation is life-threatening or if the child is in need of immediate medical intervention.
 - (c) If the situation is not life-threatening:
 - (i) Notify the parent(s)/guardian(s) and request that they transport the child to a medical facility.
 - (ii) If parent(s)/guardian(s) cannot be contacted immediately, take action in accordance with predetermined school procedures.
 - (iii) Continue attempts to contact parent(s)/guardian(s) and keep a record of actions taken and times, etc.
 - (d) Notify the school district superintendent's office/charter school board chair.
 - (e) Appropriate report forms for injury, illness, or insurance shall be completed promptly.

3.12.3. Basic First Aid Equipment and Supplies

In order to be prepared for a mass disaster, each school and each LEA office is to have enough medical supplies on hand to care for multiple injured persons for one day. The LEA should maintain an extra stock of medical supplies. Medical supplies are to be centrally located with a distribution plan in case of mass disaster. The school nurse is to work in association with the principal/director and PTA or other parental volunteer group health chairperson to establish and rotate these supplies. The suggested items and amounts can be found in Appendix F. The nurse, in association with the principal/director, is to decide upon supplies needed for the school.

3.13. UTILITY FAILURE

Utility failure or incidents are common occurrences and may happen anytime. An undetected gas line leak may require only a spark to set off an explosion. Flooding from a broken water pipe may cause extensive damage to buildings and property. Electric power failure will cause inconvenience and may result in the loss of refrigerated food supplies.

3.13.1. Preparation

- (1) Identify the possible effects the loss of each utility may have on the school. (Example: Loss of electricity might disrupt heating and ventilation and could cause failure of the phone system.)
- (2) Consider the availability of an emergency generator to supply essential needs. Emergency generators are installed in various buildings and are recommended for all schools when the budget permits the purchase.
- (3) Keep an accurate line drawing of all utility lines and pipes associated with the facility and grounds in each school.
- (4) Develop procedures for emergency utility shutoff.
- (5) Establish and maintain a list of phone numbers, including night and day reporting and repair services, for all serving utility companies (i.e., Rocky Mountain Power, Questar Gas, CenturyLink or other telephone service provider, and the local health department).

3.13.2. Response

- (1) Gas Line Break or Gas Service Interruptions
 - (a) Evacuate the building immediately using fire drill procedures.
 - (b) Notify district maintenance or security, the principal/director, the gas company, police and fire departments, and the superintendent's office.
 - (c) Open windows.
 - (d) Do not reenter the building until utility officials say it is safe.
 - (e) In situations where gas service will be interrupted for a period of time in which the temperature cannot be maintained within limits set forth in Administrative Rule R392-200, the local health department shall be notified. All medically fragile students shall be housed, so as to alleviate any complications to their health and/or well-being.
 - (f) In situations where power service will be interrupted for a period of time in which the temperature cannot be maintained within limits set forth in Administrative Rule R392-200, the local health department shall be

notified. All medically fragile students shall be housed, so as to alleviate any complications to their health and/or well-being.

- (2) Electric Power Failure
 - (a) Call the power company.
 - (b) Notify district maintenance or security.
 - (c) If there is danger of fire, evacuate the building using fire drill procedures. Any time the building is occupied, in which the fire alarm system is not fully functioning, the appropriate fire watch must be provided.
 - (d) If power cannot be promptly restored, keep refrigerated food storage utilities closed to delay spoilage. (Most units will maintain food at freezing temperatures up to 48 hours.)
 - (e) If a short is suspected, turn off power at main control point and follow repair procedures.
- (3) Water Line Break
 - (a) Call LEA maintenance or security, or the appropriate contracted specialist(s).
 - (b) Shut off valve at primary control point.
 - (c) Relocate articles that may be damaged by water (library books on lower shelves, students' belongings under desks, kitchen and office supplies, etc.).
- (4) Phone Service Interruption—Total Building
 - (a) Call the appropriate telephone provider for the facility phone repair from a working phone such as a cellular phone, another facilities' working phone, or a pay phone (number listed on front of phone).
 - (b) Notify LEA maintenance or security or contracted specialist.
 - (c) Provide alternate methods of contacting the facility in emergency situations such as a cellular phone number, e-mail, etc.
- (5) General: Initiate early or late dismissal, school cancellation, or delayed opening policies as necessary.

3.14. WIND AND OTHER TYPES OF SEVERE WEATHER

The major dangers of severe weather are intense cold or heat and the breakdown of transportation due to poor visibility and road conditions.

3.14.1. Warning

The National Weather Service (NWS) issues severe weather warnings. When threat of severe weather exists, monitor radio/television for bulletins.

3.14.2. Preparation

- (1) Establish school cancellation and early dismissal policies relative to wind, heat, snow, and/or ice conditions. Include the responsible individual(s) who shall make decisions (school district superintendent/charter school board chair) and under what conditions the policy shall be enacted.
- (2) Inform parents of the school plan and what television stations, school websites, information phone number, etc., that should be monitored for information.
- (3) Establish agreements with the highway department and local towing services, etc., to respond to stuck or stalled buses, vehicles stuck and impeding access at the facility, etc.
- (4) Suggested emergency equipment for buses, maintenance vehicles, etc., includes:
 - (a) Two-way radio.
 - (b) Booster cables.
 - (c) Tow chain or cable.
 - (d) Fire extinguisher.
 - (e) First aid kit.
 - (f) Shovel.
 - (g) Bag(s) of sand.
 - (h) Flashlight or signal light with extra batteries.
 - (i) Plastic scraper.
 - (j) List of emergency telephone numbers.
 - (k) Tire chains.
- (5) Establish procedures to cover bus trips, as applicable, on occasions such as class field trips, tours, athletic events, and other events away from the school and/or off regular routes.
- (6) Establish emergency community shelter procedures should utility services for areas of the community be disrupted and the school be needed to function as a temporary mass shelter.
- (7) Establish procedures for caring for students or staff members stranded at school facilities.
- (8) Establish procedures for providing emergency transportation for students and staff that normally walk to and from school or transported to and from the school without school provided bus services.
- (9) Establish procedures for securing the building against utility damage (frozen water pipes, etc.).

3.14.3. Response

Implement early dismissal procedures, recognizing that storms may move swiftly. Procedures shall:

- (1) Consider time required for bus drivers to respond to an emergency transportation call.
- (2) Avoid decisions that delay early dismissal, causing students and staff to be detained at school or en route to homes.
- (3) Inform students of transportation plans.
- (4) Notify parents, of transportation plans, through

- (5) public media.
- (5) Ensure that all walking students are properly dressed for cold weather or provided with transportation.
- (6) Take predetermined protective measures to secure the building against storm damage, prevent bursting pipes, etc.
- (7) Implement shelter procedures as needed.

APPENDIX A

Rule R277-400. School Emergency Response Plans.

As in effect on January 1, 2013

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- KEY
- Date of Enactment or Last Substantive Amendment
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R277-400-1. Definitions.

A. "Board" means the Utah State Board of Education.

B. "Emergency" means a natural or manmade disaster, accident, act of war, or other circumstance which could reasonably endanger the safety of school children or disrupt the operation of the school.

C. "Emergency Preparedness Plan" means policies and procedures developed to promote the safety and welfare of students, protect school property, or regulate the operation of schools during an emergency occurring within a school district or a school.

D. "Emergency Response Plan" means a plan developed by a school district or school to prepare and protect students and staff in the event of school violence emergencies.

E. "LEA" means local education agency, including local school boards/public school districts, charter schools, and, for purposes of this rule, the Utah Schools for the Deaf and the Blind.

R277-400-2. Authority and Purpose.

A. This rule is authorized under Utah Constitution Article X Section 3 which vests general control and supervision of public education in the Board, and Section 53A-1-401(3) which allows the Board to adopt rules in accordance with its responsibilities.

B. The purpose of this rule is to establish general criteria for both Emergency Preparedness and Emergency Response plans required of schools and school districts in the event of natural disasters or school violence emergencies. This rule also directs LEAs to develop prevention, intervention, and response measures and to prepare staff and students to respond promptly and appropriately to school violence emergencies.

R277-400-3. Establishing School District Emergency Preparedness and Emergency Response Plans.

A. By July 1 of each year, each LEA shall certify to the Board that the LEA emergency preparedness and emergency response plan has been practiced at the school level, presented to and reviewed by its teachers, administrators, students and their parents, local law enforcement, and public safety representatives consistent with Section 53A-3-402(18).

B. As a part of an LEA's annual application for state or federal Safe and Drug Free School funds, the LEA shall reference its Emergency Response plan.

C. The plan(s) shall be designed to meet individual school needs and features. A school district may direct schools within the school district to develop and implement individual plans.

D. The LEA shall appoint a committee to prepare plan(s) or modify existing plan(s) to satisfy this rule. The committee shall consist of appropriate school and community representatives which may include school and school district administrators, teachers, parents, community and municipal governmental officers, and fire and law enforcement personnel. Governmental agencies and bodies vested with responsibility for directing and coordinating emergency services on local and state levels shall be included on the committee.

E. The LEA shall appoint appropriate persons at least once every three years to review the plan(s).

F. The Board shall develop Emergency Response plan models under Section 53A-3-402(18)(d).

R277-400-4. Notice and Preparation.

A. A copy of the plan(s) for each school within a school district shall be filed in the LEA superintendent's or charter school director's office.

B. At the beginning of each school year, parents and staff shall receive a written notice of relevant sections of school district and school plans which are applicable to that school.

C. Each school shall designate an Emergency Preparedness/Emergency Response week prior to April 30 of each school year. Community, student, teacher awareness, or training, such as those outlined in R277-400-7 and 8, would be appropriate activities offered during the week.

R277-400-5. Plan(s) Content--Educational Services and Student Supervision.

The plan shall contain measures which assure that, during an emergency, school children receive reasonably adequate educational services and supervision during school hours.

A. Evacuation procedures shall assure reasonable care and supervision of children until responsibility has been affirmatively assumed by another responsible party.

B. Release of a child below ninth grade at other than regularly scheduled hours is prohibited unless the parent or another responsible person has been notified and has assumed responsibility for the child. An older child may be released without such notification if a school official determines that the child is reasonably responsible and notification is not practicable.

C. LEAs shall, to the extent reasonably possible, provide educational services to school children whose regular school program has been disrupted by an extended emergency.

R277-400-6. Emergency Preparedness Training.

The plan shall contain measures which assure that school children receive emergency preparedness training.

A. School children shall be provided with training appropriate to their ages in rescue techniques, first aid, safety measures appropriate for specific emergencies, and other emergency skills.

B. Fire drills:

(1) During each school year, elementary schools shall conduct fire drills at least once each month during school sessions.

(2) A fire drill in secondary schools shall be conducted at least every two months, for a total of four fire drills during the nine month school year.

(3) The first fire drill shall be conducted within the first 10 days of the school year for both elementary and secondary schools.

(4) Required emergency evacuation drills may be substituted every other time by a security or safety drill to include:

(a) shelter in place;

(b) earthquake drill; or

(c) lock down for violence.

(5) The routine emergency evacuation drill, for fire, shall be conducted at least every other evacuation drill.

(6) Fire drills shall include the complete evacuation of all persons from the school building or portion thereof used for educational purposes. An exception may be made for the staff member responsible for notifying the local fire department and handling emergency communications.

(7) When required by the local fire chief, the local fire department shall be notified prior to each drill.

(8) When a fire alarm system is provided, fire drills shall be initiated by activation of the fire alarm system.

C. Schools shall hold at least one drill for other emergencies during the school year.

D. Schools that include both elementary and secondary grades in the school shall comply, at a minimum, with the elementary emergency drill requirements.

E. Resources and materials available for training shall be identified in the plan.

R277-400-7. Emergency Response Training.

A. Each LEA shall provide an annual training for school district and school building staff on employees roles, responsibilities and priorities in the emergency response plan.

B. LEAs shall require schools to conduct at least one annual drill for school violence emergencies.

C. LEAs shall require schools to review existing security measures and procedures within their schools and make adjustments as needs demonstrate and funds are available.

D. LEAs shall develop standards and protections to the extent practicable for participants and attendees at school-related activities, with special attention to those off school property.

E. School districts and schools shall coordinate with local law enforcement and other public safety representatives in appropriate drills for school safety emergencies.

R277-400-8. Prevention and Intervention.

A. LEAs shall provide schools, as part of their regular curriculum, comprehensive violence prevention and intervention strategies such as resource lessons and materials on anger management, conflict resolution, and respect for diversity and other cultures.

B. As part of the violence prevention and intervention strategies, schools may provide age- appropriate instruction on firearm safety (not use) including appropriate steps to take if a student sees a firearm or facsimile in school.

C. LEAs shall also develop, to the extent resources permit, student assistance programs such as care teams, school intervention programs, and interagency case management teams.

D. In developing student assistance programs, LEAs are encouraged to coordinate with and seek support from other state agencies and the Utah State Office of Education.

R277-400-9. Cooperation With Governmental Entities.

A. As appropriate, an LEA may enter into cooperative agreements with other governmental entities to assure proper coordination and support during emergencies.

B. LEAs shall cooperate with other governmental entities, as reasonably feasible, to provide emergency relief services. The plan(s) shall contain procedures for assessing and providing school facilities, equipment, and personnel to meet public emergency needs.

C. The plan(s) developed under R277-400-5 shall delineate communication channels and lines of authority within the LEA, city, county, and state.

(1) the Board, through its superintendent, is the chief officer for emergencies involving more than one LEA, or for state or federal assistance;

(2) the local board, through its superintendent, is the chief officer for school district emergencies;

(3) the local charter school board through its director is the chief officer for local charter school emergencies;

(4) In the event of an emergency, school personnel shall maintain control of public school students and facilities during the regular school day or until students are released to a parent or legal guardian.

R277-400-10. Fiscal Procedures.

The plan(s) under R277-400-5 shall address procedures for recording LEA funds expected for emergencies, for assessing and repairing damage, and for seeking reimbursement for emergency expenditures.

KEY

emergency preparedness, disasters, safety, safety education

Date of Enactment or Last Substantive Amendment

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Notice of Continuation

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APPENDIX B

SHELTER AND MASS CARE FOR NATURAL AND TECHNOLOGICAL HAZARDS

1. PURPOSE

The purpose of this Appendix is to establish plans, procedures, policy, and guidelines for the provision of temporary lodging, emergency feeding, and clothing of persons forced to leave their homes due to an actual or threatened emergency or disaster.

2. SITUATION AND ASSUMPTIONS

2.1. Situation

2.1.1. Facilities may be needed in the county for both the direct and indirect effects of a hazard.

2.1.2. Mass care facilities (i.e., indirect effects facilities) are life-supporting. They are needed for protection from the effects of the hazard.

2.2. Assumptions

2.2.1. While local government has the overall responsibility to protect the population, the American Red Cross will establish, manage, and coordinate shelter/mass care

operations within their capability.

- 2.2.2. In cooperation with the American Red Cross Disaster Services, local government shall manage and coordinate all shelter/mass care activities until the American Red Cross arrives.
- 2.2.3. Other professional/volunteer organizations that normally respond to emergency/disaster situations can be expected to do so.
- 2.2.4. Assistance shall be available from the outside through mutual aid agreements, and from state and federal-level emergency agencies, when appropriate.
- 2.2.5. Facilities planned for shelter/mass care use shall be available at the time of need.
- 2.2.6. Experience has shown that, under localized emergency conditions, a high percentage (75 percent or more) of evacuees will seek lodging with friends or relatives rather than go to a public shelter. The percentage of people seeking public shelter can be nearly 100 percent for a Hazmat incident.
- 2.2.7. Essential public and private services in reception areas shall be continued during a mass care situation. Normal activities in some schools and churches may have to be curtailed or discontinued.
- 2.2.8. If the threat of an evacuation is due to a visible hazard or has been discussed in the media, some spontaneous evacuation may occur prior to an implementing order. Therefore, mass care operations may have to commence early in any disaster period.

3. DIRECTION AND CONTROL

All activities shall be coordinated through the Shelter Systems Officer in the Emergency Operations Center (EOC). Shelter/lodging facility managers shall be responsible for the operation of their individual facilities. When appropriate, the American Red Cross will provide reports through the American Red Cross Mass Care Officer and to the EOC through the American Red Cross Government Liaison. The use of school facilities shall occur only after all students have been reunited with their parent(s)/guardian(s) or other responsible adult previously noted on the student's emergency contact information, or assurances have been put into place for students remaining at the facility to be kept separate and safe from those other than regular school staff and students.

4. CONCEPT OF OPERATIONS

4.1. General

- 4.1.1. The county commissioners have the overall responsibility for ensuring the protection and welfare of the people in the

county.

- 4.1.2. In cooperation with available volunteer disaster assistance organizations, such as VOAD (Voluntary Organizations Active in Disaster), the county will make available shelter and mass care services for people requiring them as the result of an emergency/disaster situation.
- 4.1.3. The American Red Cross, VOAD, and other private disaster assistance organizations shall be called upon to provide management and support to shelters for the affected population, and to care for their emergency needs by organizing shelter teams, providing services necessary to support the sheltered population, including registration, or other life-support assistance.
- 4.1.4. In some disasters, the state or federal government may be requested to provide emergency housing. Disaster victims shall be encouraged to obtain housing with family or friends or in commercial facilities. To the extent possible, local government will assist and coordinate post-disaster housing needs for the homeless.

4.2. Phases of Emergency Management

4.2.1. Mitigation

- (1) Encourage shelter considerations in architectural design.
- (2) Identify volunteer groups.
- (3) Develop shelter/mass care capability.

4.2.2. Preparedness

- (1) Identify mass care facilities (temporary lodging and emergency feeding sites or Points of Distribution (PODs)) and protective shelters.
- (2) Obtain the cooperation of facility owners for use of facilities as mass care facilities and protective shelters.
- (3) Establish Memorandums of Understanding (MOUs) with appropriate VOADs and governmental agencies.
- (4) Train facility/shelter managers and primary staff.
- (5) Maintain a list of sources of food and essential supplies.
- (6) Coordinate training and communication procedures.
- (7) Coordinate responsibilities with other agencies and/or volunteer groups.
- (8) Identify population groups requiring special assistance during an emergency (such as senior citizens and the disabled) and ensure that a capability exists to provide it.

4.2.3. Response (in Coordination With the American Red Cross)

- (1) Enter into MOU prior to emergency situation(s), working with local representatives to establish and

- improve processes.
- (2) Open and staff shelters/mass care facilities.
- (3) Provide food and other essentials as needed.
- (4) Obtain supplies and materials as required.
- (5) Maintain communications between shelters and EOC.
- (6) Assist registration of evacuees/victims.
- (7) Provide information for victims needing additional services.
- (8) Establish procedures to establish and maintain safety and security of any students housed at the school facility when housed at a facility used as a shelter.

4.2.4. Recovery

- (1) Deactivate shelters/mass care facilities as necessary.
- (2) Assess continued human needs of victims.
- (3) Inform the public of extended care availability.
- (4) Coordinate post-disaster housing needs.
- (5) Coordinate with state and federal officials on location of Disaster Application Center (DAC).
- (6) Assist the American Red Cross in establishing family assistance and reunification centers and programs.

4.2.5. Mass Care

Mass care includes the registration of evacuees, the opening and management of temporary lodging facilities, and the feeding of evacuees and workers through both mobile and fixed feeding sites.

4.2.6. Registration

- (1) The designation of specific lodging and feeding facilities depends on the actual situation and the location of the hazard area. Facilities selected shall be located far enough outside of the hazard risk zone to eliminate the possibility of the threat extending to the mass care facility. The best possible facilities shall be selected from lists that are maintained by the American Red Cross. Specific care must be given to ensure that designated facilities are suitable for lodging institutionalized or special needs groups. Agreements (MOUs) for use of these facilities have been obtained by the American Red Cross. The Emergency Services Director or Shelter Systems Office, in conjunction with the American Red Cross (ARC), shall obtain permission from owners to use other facilities as required.
- (2) When mass care facilities are opened, it is the responsibility of the American Red Cross to maintain administrative control and fill all functions and staffing needs according to the American Red

- (3) Cross policy.
- (3) As needed, meals and snacks shall be provided to evacuees and workers through both mobile and fixed feeding sites. Upon the American Red Cross or other VOADs arrival, they are responsible for meal planning, coordination of mobile feeding, and identifying feeding sites and resources for the procurement of food and related supplies.
- (4) The American Red Cross and the Emergency Services Director jointly maintain listings of qualified and trained shelter/lodging facility managers.

4.2.7. Human Services

In addition to the provision of shelter/mass care, unique demands will be placed upon the delivery of human services to include the care of special needs groups and crisis counseling.

5. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

5.1. General

The ultimate responsibility for the care of evacuees and displaced disaster victims rests with the county commissioners. This responsibility has been delegated to the Emergency Services Director. The Shelter Systems Officer (SSO) in this capacity is a volunteer on the staff of the Emergency Services Director. The SSO is the primary point of contact for planning, coordinating, and implementing the shelter program. Services shall be provided through the coordinated efforts of Emergency Services Director staff members, American Red Cross, Salvation Army, The Church of Jesus Christ of Latter-Day Saints, The Southern Baptists, Voluntary Organizations Active in Disasters (VOAD), and/or other volunteer agencies and/or mutual aid agreements with various support groups.

5.2. Functional Responsibilities

5.2.1. Emergency Services Director

- (1) Appoint a Shelter Systems Officer (SSO).
- (2) Develop shelter/mass care program.
- (3) Ensure that facilities are activated and deactivated as required.
- (4) Inform the public of shelters and PODs.

5.2.2. Shelter Systems Officer (SSO)

- (1) In coordination with the American Red Cross, identify volunteer agencies and develop emergency agreements.
- (2) Identify potential protective shelters and mass care facilities.
- (3) Ensure that shelter management staff are recruited and trained.
- (4) Arrange and coordinate mass feeding.

- (5) Coordinate the distribution of donated clothing.
- (6) Coordinate with area officials for supplementary food stocks from USDA sources.

5.2.3. Law Enforcement

- (1) Provide security and law enforcement at shelters/mass care facilities.
- (2) Provide back-up communications.

5.2.4. Fire Service

- (1) Inspect shelter/mass care sites for fire safety.
- (2) Provide and maintain shelter fire extinguisher.
- (3) Train shelter personnel in fire safety and fire suppression.

5.2.5. Building Inspectors and/or Design Professionals

- (1) Inspect shelter/mass care sites for building safety and ability for use.
- (2) Act as "First Responders" to evaluate building soundness when an emergency has affected the facility structure, building contents, etc.

5.2.6. Transportation

Provide and coordinate public transportation to emergency feeding sites, food distribution points, clothing pick-up points, PODs, etc.

5.2.7. Health and Medical

- (1) Coordinate with the American Red Cross Health Services to ensure that all mass care facilities meet all current health code standards.
- (2) In cooperation with the American Red Cross Disaster Health Services, coordinate medical coverage at mass care facilities.

5.2.8. Human Services Officer

- (1) Coordinate crisis counseling.
- (2) Assist in registration of evacuees.
- (3) Solicit and distribute donated clothing to disaster victims.

5.2.9. American Red Cross (through agreement-MOUs)

- (1) Staff and operate shelter/mass care facilities.
- (2) Register evacuees.
- (3) Provide emergency food and other essential materials.
- (4) Process inquiries from concerned families outside the disaster area.
- (5) Provide for temporary home repairs.

5.2.10. Salvation Amy (through agreement)

- (1) Assist in mass feeding operations.
- (2) Collect and distribute food, clothing, and other supplies.
- (3) Repair homes.

5.2.11. The Church of Jesus Christ of Latter-Day Saints

- (1) Assist in mass feeding operations.
- (2) Collect and distribute food, clothing, and other supplies.
- (3) Repair homes.

5.2.12. Other Volunteer Agencies, Such as VOAD, as Appropriate

6. ADMINISTRATION

6.1. Records

The American Red Cross maintains records of all expenses incurred by their mass care activities. The Emergency Services Director will ensure that adequate records of local government expenses are maintained.

6.2. Training

The Emergency Services Director shall ensure that shelter management and other appropriate training is made available to officials and volunteers who would participate in mass care activity. Training programs in shelter systems and shelter management are available through the State of Utah, Division of Comprehensive Emergency Management (CEM), FEMA, etc. The American Red Cross offers training in disaster services and mass care. NOTE: Any training received should be by the appropriate entities knowledgeable in all applicable federal, state, and local laws, codes, rules, policies, and procedures.

6.3. Inquiries

The American Red Cross will establish a Disaster Welfare Inquiry Operation to answer requests from relatives and friends concerning the safety and welfare of evacuees or those in disaster areas. Welfare inquiry listings, along with registration listings, will be coordinated with the EOC and law enforcement agencies for comparison with missing persons lists.

6.4. Support

6.4.1. Public school facilities shall be a prime consideration for use as emergency mass care facilities. Utilization of these shall be coordinated with school officials.

6.4.2. The permission to use facilities for disaster operations shall be secured from the owners/managers of selected facilities.

6.4.3. Coordinated efforts of Emergency Services, the American

Red Cross, and other voluntary organizations shall support the provision of shelter services.

6.5. Communications

6.5.1. The primary communications links between shelter/mass care facilities and the EOC shall be telephone. If telephones cannot be used or are overloaded, law enforcement, firefighters, e-mail, or amateur radio operators shall provide radio communications.

6.5.2. Shelter/lodging facility managers shall arrange for persons in their facility to monitor prescribed communication sources for guidance and announcements.

7. ANNEX DEVELOPMENT, MAINTENANCE, AND IMPLEMENTATION

7.1. Development and Maintenance

The Shelter Systems Officer shall be responsible for the development and maintenance of this annex. Extensive coordination with support agencies and volunteer groups shall be accomplished. Each agency shall develop standard operating procedures that address assigned tasks.

7.2. Implementation

7.2.1. Provisions of this annex concerning mass care shall be implemented as soon as a need for temporary lodging or feeding is noted. While a coordinated government/American Red Cross decision is desirable, the American Red Cross may independently activate their operations.

7.2.2. Communications shall be established with all agencies and, in the event of an evacuation, essential personnel, including volunteers, shall be alerted. Required material resources (cots, blankets, food, etc.) shall be located and repositioned, if necessary. Hospitals shall be alerted to the possibility of receiving evacuee patients, when appropriate.

APPENDIX C

EMERGENCY PREPAREDNESS EDUCATION FOR PRIMARY GRADES, INTERMEDIATE AND SECONDARY GRADES

It is not enough for the school to provide for the physical safety of students. Students also must be mentally prepared to meet a crisis. Contrary to many commonly held beliefs, it is not the realistic understanding of the effects and consequences of disaster that causes people to take a fatalistic, fearful view of emergency preparedness. ***Ignorance, misunderstanding, and mistrust of public information and warning are the three things that most often result in inaction, panic, and unnecessary loss of life and property.***

1. To help dispel ignorance, clear up misunderstanding, and develop trust in public information and warning, the school needs to provide students with

emergency preparedness information. Disaster awareness and preparedness are best taught by incorporating the material into existing courses where it is most relevant. It is not a difficult task, but it does take thought, ingenuity, and adherence to factual and approved practices. Teachers will probably find that by raising their own consciousness to the realities of disaster, they shall begin to see numerous opportunities for raising students' awareness by providing safety tips during normal class work.

2. The results should be two-fold. First, the ability of the school population to respond to an emergency is likely to be greatly improved when students are fully aware of the rationale behind the instructions they are given. Second, students who have survival skills increase their ability to take care of themselves should an emergency arise and there are no responsible adults to take charge.

2.1. PRIMARY GRADES

- 2.1.1. Even a very young child can absorb basic emergency preparedness instruction. A child needs to know that emergencies can happen to anyone and that there are measures that should be taken in self-protection. Without frightening a child, a teacher may introduce concepts of emergency and self-help by relating instructions to the child's everyday experiences. Depending upon the rural or urban character of a community, a teacher should give priority to that which children are most apt to experience in their home or school environment.

- 2.1.2. Primary school children should be made aware of the natural phenomena and manmade hazards that cause disasters. They should be trained in safety and survival procedures and become acquainted with the people and agencies providing emergency services. They must acquire their own sense of self-confidence in problem solving and decision making. Children also should be shown how individual cooperation adds to the safety of the group.

2.1.3. Tips for Teachers

- (1) Take advantage of the many free materials developed for primary grade emergency preparedness curricula.
- (2) Invite speakers from emergency service groups, and visit the emergency management office, fire department, police department, etc., on short field trips.
- (3) Add a few emergency-related words to the weekly spelling lesson.
- (4) Make up math problems involving emergency response times.
- (5) Have children make maps of their community, designating hazardous areas as they perceive them.
- (6) Have children draw posters or make up songs or poems about emergency preparedness techniques.
- (7) Invent a likely emergency situation and assign each

- child a role (disaster workers, victim, etc.). Hold an impromptu play.
- (8) View a disaster-related film and have the children discuss it.
 - (9) Use carefully chosen newspaper and magazine articles that will not upset or alarm students to illustrate disasters and their effects.
 - (10) Choose a story involving children and an emergency situation to read to the class.
 - (11) Visit sites where natural change is taking place and emphasize both constructive and destructive effects of floods, fires, and storms.
 - (12) Drill children in personal identification information (full name, address, and telephone number).

2.2. INTERMEDIATE AND SECONDARY GRADES

- 2.2.1. As children get older, they need more detailed information about the hazards of living. Children in the secondary grades are ready to view events in a continuum from cause to effect. They should be ready to approach the subjects of natural and human-caused disasters, including an introduction to the implications of nuclear war.
- 2.2.2. Unlike the younger children, secondary grade students are more able to relate to things on a world scale. By the time they have reached junior and senior high school, they should be well aware of the global relationships and repercussions of natural and human-caused phenomena. They also should have a well-developed sense of their own place in the scheme of things and confidence that they have direction and control of their lives. These kinds of positive attitudes can be fostered by ensuring that each student has a stark awareness of the threats to life and a wide selection of life coping and lifesaving information from which to draw.
- 2.2.3. For adults, the words “emergency” and “disaster” carry with them graphic pictures of death and destruction—things we do not care to think about. But for adults, and children as well, group discussion of these facts of life and death provide an opportunity to examine fears and realize the many feelings we share. This knowledge is often a source of comfort and strength in an emergency. Teachers find that the study of the psychological and philosophical basis of human reaction to extreme situations generates profound and satisfying discussion.
- 2.2.4. Tips for Teachers
 - (1) Science
 - (a) Relate disasters to physical change, conservation, ecology, and environmental science.
 - (b) Keep daily weather charts and note subtle and dramatic changes on the graph.
 - (c) Study Utah’s vulnerability to earthquakes,

high winds, flooding, and other natural hazard phenomena, and the relationship of weather and climate to geographical location.

- (d) Discuss the hazards overcome by science and technology and the hazards science and technology have created.
 - (e) Discuss the potent forces of storms and nuclear detonations.
 - (f) Keep a scrapbook of newspaper clippings to illustrate the scope and effect of natural and manmade disaster, the frequency of disaster, and the benefits of preparedness.
- (2) Social Studies
- (a) Study the interdependence and cooperation of people, organizations, and nations when disaster strikes.
 - (b) Study the effects disasters such as wars, earthquakes, and fire have had in changing the course of history.
 - (c) Compare the hazards that faced the pioneers of early Utah to the ones faced by modern Utahns.
 - (d) Examine the emergency functions of various governmental agencies.
 - (e) Invite the local emergency management agency director or another individual involved and knowledgeable in emergency management to explain his/her role in emergency preparedness planning and response.
 - (f) Compare and discuss the hazards of living in other countries.
 - (g) Compare and discuss the hazards Utah has in common with other places of equal latitude.
- (3) Health and Physical Education
- These are ideal courses for teaching safety and survival techniques, basic first aid, etc. Have students simulate a disaster situation and take turns playing victim and rescue workers. Practice simple carry/stretchers improvisation, etc.
- (a) Offer courses in advanced first aid.
 - (b) Organize rescue teams and train with local volunteer rescue organizations.
 - (c) Relate health and fitness to self-preservation.
 - (d) Study emergency procedures for maintaining sanitary conditions and preserving food quality during disasters.
- (4) Reading
- (a) Give the class a list of reading material about disasters and emergencies. Assign book reports and have students present them to the class. Hold a discussion about disasters and the various reactions and

- responses the children discovered in their reading.
- (b) Add emergency/disaster-related words and phrases to vocabulary and spelling lists.
 - (c) Have students write a short story, poem or play relating a personal account of a fearful situation, emergency, or disaster.
 - (d) Assign material for reading that relates to disasters.
 - (e) Have students critique various journalistic approaches to disaster reporting (e.g., sensationalism, etc.).
 - (f) Have students examine local newspapers as far back as they are filed (or kept on microfilm) and compare past disaster reporting with the present styles. Conduct an historical survey of community disasters and make a class report to print in the school or local newspaper.
- (5) Music and Art
- (a) Have students made safety posters and display them during school disaster awareness week.
 - (b) Make a collage of disaster pictures, or paint a mural of an emergency response.
 - (c) Discuss the effect of music in reducing fear and anxiety. Use positive and uplifting songs as examples. Have the class compose a song of its own.
 - (d) Have students design pocket identification cards and encourage them to carry the card at all times.
- (6) Math
- (a) Have students locate the epicenter of an earthquake using a world map, a compass, and the formulas for primary and secondary waves.
 - (b) Invent a word story problem using a series of formulas and math skills.
- (7) Chemistry
- (a) Discuss the composition of matter. Lead a discussion of nuclear weapons, their effects on people and the environment, and how people can protect themselves from fallout.
 - (b) Discuss the positive and negative aspects of peacetime nuclear use.
- (8) Earth Science
- (a) Earth science classes should examine natural forces that create disasters (e.g., faulting, volcanism, tsunamis, mass earth movements, and sinkhole collapse). Rate the state using geologic and topographic maps, noting hazardous areas and regions.
 - (b) Set up a simple weather station.
 - (c) Provide students with ideas for science projects involving hazard mitigation and

- detection.
- (d) Show and discuss films of storm development.
- (e) Discuss the positive and negative aspects of science and technology.
- (f) Study nuclear power and alternative energy sources (solar, wind, tidal, etc.).
- (g) Study the “greenhouse effect” and its implications. What can reduce the possibilities of such occurrences?
- (h) Study the effects of radiation on biological organisms.
- (i) Study evolution and adaptation to the hazards of an environment.
- (j) Compare animal instinct to human reactions. Do animals sense danger? Do people?
- (k) Examine the ways in which plants and animals react to and recover from disasters. (Example: Some pine trees re-seed by fire.)
- (9) Home Economics
 - (a) Study emergency mass feeding techniques, food preparation, nutrition, and maintaining health during food rationing. Examine easily stored and preserved foods.
 - (b) Study home techniques for storage, rotation, and preparation of emergency food supplies.
 - (c) Design a family emergency response plan.
 - (d) Identify hazards found in and around your house.
- (10) Social Studies
 - (a) View the world and the ways different cultures regard resources and hazards. Ask the question, “Are these things universal, or is one person’s hazard another person’s resource?” Example: Compare the flooding of the Nile to the flooding of the Mississippi. Examine the ways in which people adapt to what we perceive to be hazards and make them essential to life.
 - (b) Compare the cultural response to hazards along the East Coast of the U.S. and the East Coast of Asia. How is it the same? Different? How do history and philosophy influence cultural response? (There are no fixed answers to many of these questions you may ask about the effect of environment on culture and history, and vice versa, but they are thought-provoking questions that can generate many lively discussions.)
 - (c) Study the psychology of fear, stress, and grief. Ask why people tend to become altruistic during disasters. Can disasters be beneficial? Do they alter our sense of values? Do they unify communities?
 - (d) Study the history of the U.S. Use the San

Francisco earthquake, Northridge earthquake, Chicago fire, Hurricane Katrina, Hurricane Sandy, etc., as examples. How did they alter city development? What were other effects?

- (e) Study the philosophy of natural history. Ask if preservation of a truly natural environment is possible or desirable. If man is a part of the natural environment, are his changes natural too?

APPENDIX D

PREVENTING AND RESPONDING TO VIOLENCE

School violence has increasingly come into the public eye due to deadly multiple shootings in such places as Littleton, Colorado; Jonesboro, Arkansas; Springfield, Oregon; and Newtown, Connecticut. The possibility of school shootings has become an issue for urban, rural, and suburban communities alike. Schools have experienced multiple-victim homicides, many in communities where people previously believed “it couldn’t happen here.”

1. VIOLENCE IN SCHOOLS

- 1.1. Given the number of students in the United States, multiple-victim homicides are still extremely rare, and in recent years, the overall rate of violence in schools has actually declined. Physical conflicts, threats, and harassment are still common. Many students and teachers are more fearful than ever before when they enter the doors of their school. This climate of fear makes it more difficult for schools to provide positive learning environments.
- 1.2. Possible contributors to school violence include:
 - 1.2.1. Exposure to violence with the family and community.
 - 1.2.2. Child abuse and neglect.
 - 1.2.3. Poor parenting practices and lack of interest in children’s activities.
 - 1.2.4. Peer pressure to engage in harassment of other students, violent behavior, drug or alcohol use, and truancy.
 - 1.2.5. Prejudices based on race, religion, ethnicity, physical appearance, social class, sexual orientation, disability, gender, etc.
 - 1.2.6. Information on how to make explosive devices and unsupervised access to firearms.
 - 1.2.7. Excessive exposure to violence in electronic media.
 - 1.2.8. Drug or alcohol abuse.
 - 1.2.9. Lack of conflict resolution skills.

- 1.2.10. Lack of quality role models and the availability of inappropriate role models.
- 1.2.11. Perceived lack of opportunity to be successful through legitimate means.
- 1.2.12. Failure to detect and treat children exhibiting warning signs of being troubled.
- 1.2.13. Lack of adult supervision of, and positive interaction with, children after school.
- 1.2.14. Negative student image.
- 1.2.15. Lack of educational programs to reduce bullying, hazing, etc.

2. PREVENTION

2.1. Role of School Administrators, Teachers, and Staff

Administrators should initiate a comprehensive security assessment survey of their school's physical design, safety policies, and emergency procedures. The assessment should be conducted in cooperation with local law enforcement and local fire officials, as well as local emergency medical service providers, school security staff, students, and other school community members. Using the conclusions of that survey, administrators should assign a safety and violence prevention committee composed of all of the above representatives to develop a comprehensive emergency security plan. Based on each school's needs, school safety plans may include some or all of the following suggestions.

2.1.1. School Security

- (1) Utilize School Resource Officers (SROs) who may be provided by local law enforcement. SROs often provide law enforcement, law-related counseling, and law-related education to students, faculty, and staff. Continuity of officers within individual schools should be encouraged, so that students and SROs develop rapport.
- (2) Acquire one or more probation officers for use on campus to help supervise and counsel students. High schools with a significant caseload of juveniles on probation would find this program appropriate.
- (3) Utilize paid, trained personnel specifically to assist teachers and administrators in monitoring student behavior and activities.
- (4) Encourage parents/guardians and others to provide volunteer monitoring of students on campus. Provide training and guidelines outlining duties.
- (5) Enforce restrictions on student loitering in parking lots, hallways, bathrooms, and other areas. Provide students with restrictions in the student handbook/code of conduct.

- (6) Use metal detectors to deter weapons on campus.
- (7) Adopt policies for searches for weapons and drugs.
- (8) Require visitors to sign in and sign out at the school office and to wear visible visitors' passes/badges.
- (9) Instruct school personnel to greet strangers on campus and direct them to sign in. Also instruct personnel and students to report visitors who have not signed in.
- (10) Consider whether students and staff might wear photo ID during school and school-related activities.
- (11) Consider a closed campus policy that prohibits students from leaving school during lunch.
- (12) Encourage neighborhoods to report all criminal activity and unusual incidents.
- (13) Consider providing alarm, intercom, cell phone, building paging, two-way radio, and mounted hand-held camera systems on buses and campuses.
- (14) Develop a school bus rider attendance checklist for each bus.
- (15) Consider employing outside security personnel during school functions.
- (16) Patrol school grounds, especially in areas where students tend to congregate.
- (17) Develop threat and crisis management plans and procedures.
- (18) Develop a comprehensive set of violence prevention strategies.

2.1.2. Reporting

Establish a climate that encourages and enables students, teachers, and parents/guardians to report threats and acts of violence.

- (1) Within legal guidelines and statutes, maintain confidentiality.
- (2) Standard procedures should include definitions of pertinent information and how and where information should be distributed.
- (3) Establish and advertise a hotline number for reporting issues of harassment, bullying, hazing, vandalism, safety, etc.
- (4) Provide training to recognize whether acts of violence are false or malicious.

2.1.3. Student Rules

Student rules must be communicated, understood, and consistently enforced. Rules must comply with constitutionally guaranteed due process procedures.

- (1) Establish rules of conduct pertaining to improper student behavior.
- (2) Annually review and revise rules of student conduct if needed.
- (3) Students' comprehension of the rules should be assessed.

- (4) Post summaries of rules throughout the school.
- (5) Communicate rules of student conduct to parents/guardians.
- (6) Communicate rules in as many languages as needed.
- (7) Develop consequences for rule violations.
- (8) Notify parents/guardians of rule violations in a timely manner.
- (9) Suspend and recommend expulsion of students for serious rule violations such as:
 - (a) Possession of a firearm on school property or at school events.
 - (b) Possession or use of a weapon on school grounds or at school events that is capable of inflicting serious bodily harm.
 - (c) Physical assault of a teacher, administrator, staff member, or student.
- (10) Suspend and consider appropriateness of expulsion for the following:
 - (a) Verbal threat to a teacher, administrator, staff member, or student.
 - (b) Possession, sale, or use of illegal drugs on school property.
 - (c) Actual or threatened retaliation against persons who report threats or acts of violence.

2.1.4. Support for Teachers and Other Staff

Working in collaboration with faculty, the school administration has the responsibility to enforce school rules.

- (1) Take quick, consistent, and appropriate action toward students who are reported by teachers and other staff for rule violations.
- (2) Group teachers and other personnel who work with the same troubled student into teams to enable them to discuss that student and strategies for helping him/her.

2.1.5. Programs for Suspended/Expelled Students

- (1) Appropriate programs should be available for elementary, middle, junior high, and high school students in separate environments.
- (2) Provide a low student-to-staff ratio.
- (3) Consider requiring suspended students to participate in community-based programs where they would witness the effects of causing injury to others.
- (4) Consider reducing length of suspensions in exchange for successful completion of community service.
- (5) Provide counseling such as anger management, conflict management and resolution, respecting the rights of others, and social skills.
- (6) Take appropriate security measures when putting

- troubled students together.
- (7) Provide employment information to students.

2.1.6. Student Court

- (1) Use qualified adults to oversee peer courts.
- (2) Provide training to peer court participants.
- (3) Inform “defendants” that they must abide by the student court’s decision and inform them of consequences for not complying.

2.1.7. Positive Incentives

- (1) Create recognition rewards for students who perform good citizenship behaviors.
- (2) Invite community leaders to inform students of the way to achieve success.
- (3) Consider school-wide assemblies for motivational speakers to address topics such as anti-drug, anti-alcohol, and anti-violence messages.
- (4) Invite responsible adults to mentor students.
- (5) Promote press/media coverage for students who have done well; create some “good news.”
- (6) Create programs for developing character, and recognize students who exhibit positive traits.
- (7) Promote partnerships between schools and law enforcement, businesses, and service organizations to recognize and reward positive student behavior.

2.1.8. Employee Screening

Investigations should be conducted to avoid harmful or abusive teachers, staff, and volunteers, including:

- (1) State sex offender registry check.
- (2) Criminal background check.
- (3) Fingerprint check.
- (4) Employment, personal, and education reference checks.
- (5) Personal interviews.
- (6) On-the-job observations.
- (7) Professional disciplinary board background check.
- (8) Alcohol/drug testing for designated personnel such as, school bus drivers, drivers’ education teachers, etc.
- (9) Mental illness/psychiatric history check.

2.1.9. Class and School Size

- (1) Strive for optimal student-to-teacher ratios to allow teachers to identify warning signs of students prone to violence.
- (2) Schools where students are more connected to their environment tend to have lower rates of violence.

2.1.10. Parental Involvement

- (1) Solicit as much parental involvement as possible.
- (2) Offer information for parental involvement.

2.1.11. Utilization of the School

- (1) Advocate preschool programs for younger children, such as Head Start as appropriate.
- (2) Promote attractive after-school activities for all students.

2.1.12. School Physical Environment

A safe and secure environment promotes and enhances the learning process.

- (1) Maintain the appearance of schools to decrease vandalism and violence (e.g., remove graffiti immediately).
- (2) Employ crime prevention techniques through environmental design to reduce crime, such as the removing shrubbery and plants that could provide coverage for an intruder, providing adequate lighting of buildings and grounds, and eliminating holding places for intruders in the corridors of facilities.

2.1.13. Counseling Services

- (1) Provide counselors to students in need, including services for emotional and social development, exceptional students, academic, vocational, pregnant/parenting, gang, psychological, family, and substance abuse.
- (2) Encourage students to help other students.
- (3) Encourage counselor to have adequate information about and access to community resources.
- (4) Inform students of the different types of counseling services available and know how they can obtain them.
- (5) Identify at-risk students and provide counseling.

2.1.14. Conflict Resolution Programs

- (1) Determine the types of conflicts that tend to occur and how they are best resolved.
- (2) Determine which conflict resolution programs would be most appropriate for the school.
- (3) Obtain trainers to implement the program.
- (4) Begin training at the earliest age-appropriate school level and continue the training throughout the students' education.
- (5) Obtain support and involvement from faculty and parents/guardians.
- (6) Teach conflict resolution to students, using activities incorporated into the curricula.
- (7) Evaluate the success of the program against pre-

established goals.

2.1.15. Social Skills Training

- (1) Encourage faculty to instruct and model positive social skills.
- (2) Implement life skills training throughout the curriculum to teach students how to recognize problem situations, manage stress, achieve self-control, and demonstrate emotional maturity.

2.1.16. Cognitive Skills Training

Violence in school settings often erupts as impulsive or irrational reactions to immediate problems.

- (1) Teach means-ends thinking, in which students learn how to reach a goal by step-by-step planning, identifying potential obstacles, and accepting that problem solving often takes time.
- (2) Teach analytical thinking, in which students learn how to weigh the appropriate pros/cons when deciding whether to carry out an act.
- (3) Teach alternative thinking, in which students learn to find new solutions to a problem.
- (4) Teach consequential thinking, in which students learn to consider different outcomes that might result from a given action.

2.1.17. Diversity Issues

Intolerance often leads to conflict, interferes with the learning process, and has been a factor in violence in the schools. The purpose of diversity training is to try to reduce intolerance.

- (1) Design and distribute a diversity acceptance policy to students, parents/guardians, teachers, and staff.
- (2) Provide diversity acceptance training to all staff and faculty.
- (3) Provide all students diversity acceptance training in the classroom and in assemblies.
- (4) Use progressive discipline for acts of intolerance. Use non-disciplinary actions for first-time offenders such as counseling, parent conferences, community service, or awareness training. Progressively increase discipline for recurring or more serious violations, such as detention, suspension, or expulsion.
- (5) Recognize that certain types of graffiti, literature, and actions may be indicators of potential hate-crime or harassment.

2.1.18. Anti-Bullying Programs

Bullying is a range of behaviors, both verbal and physical, that intimidates others and often leads to antisocial and unlawful acts. Bullying is a pervasive problem that leads to

violence.

- (1) Communicate a pre-established definition of bullying activity to students, teachers, parents and staff.
- (2) Establish rules prohibiting, and consequences for, bullying activity as part of the school's code of conduct.
- (3) Seek information about the motivations behind specific incidents of bullying.
- (4) Establish a reporting mechanism by which incidents of bullying can be reported.
- (5) Ensure reporting procedures detailing under which circumstances information will and will not be shared.
 - (a) Protect witnesses and victims from retaliation.
 - (b) Meet applicable standards for confidentiality.
 - (c) Ensure that personnel involved with victims and bullies have the information they need to effectively work with them.
 - (d) Protect the accused from false allegations.
- (6) Establish a policy regarding the notification of parents/guardians of both victims and perpetrators whenever a report of bullying is formally filed.
- (7) Continually monitor the number of reported incidents of bullying.
- (8) Address bullying activities that occur on the way to and from school.
- (9) Consider holding focus groups to discuss the nature of the problem of bullying and ways to solve it.
- (10) Ensure that adequate social service and mental health resources are both available and being utilized.
- (11) Identify bullies and victims, and promote intervention at the classroom level and at other student contact points within schools.
- (12) Advise teachers and staff to record events, as well the interventions and strategies they implement to address different instances of bullying.

2.1.19. Programs to Reduce Isolation and Alienation and to Promote Respect

Develop programs that increase positive self-respect and respect for others.

- (1) Establish standards for how people should treat each other.
- (2) Ensure that classroom standards are consistent with school and district policies as applicable.
- (3) Review classroom standards with students and send copies to parents.
- (4) Disseminate statements of values that all affiliates of the school will be expected to follow.
- (5) Open lines of communication with students who

- may feel alienated or isolated or who have low self-esteem.
- (6) Have positive extracurricular activities available to students.
 - (7) Help students become more successful in achieving short- and long-term goals.
 - (8) Teach students how to resist others' efforts to intimidate or isolate them.
 - (9) Suggest that the local school board adopt a community service requirement for middle/junior high and high school graduation as applicable.
 - (10) Reinforce values such as learning, respect, character, and cooperation.
 - (11) Encourage students to work together, such as on team projects.
 - (12) Encourage the contemplation of core values through the use of age and curriculum-appropriate writing assignments and class discussions.
 - (13) Encourage students to become actively involved in the school community.
 - (14) Recognize and reward students who exhibit positive and responsible behavior.
 - (15) Offer troubled and withdrawn students, including victims, help outside of class with schoolwork and personal problems.
 - (16) Encourage open communication between students and adults.

2.1.20. Drug and Alcohol Education

The use of drugs and/or alcohol is often associated with violence and other forms of delinquent behavior.

- (1) Educate students about the dangers and illegality of drug and alcohol use.
- (2) Implement age-appropriate programs that include discussions about how students can resist negative peer pressure.
- (3) Enlist parents'/guardians' support in addressing the dangers of drug and alcohol abuse.
- (4) Avoid programs that are based predominately on fear arousal, moral appeal, or the simple distribution of information.
- (5) Require students who participate in extracurricular activities to agree not to use alcohol or drugs.
- (6) Identify resources for referral of information and/or intervention for students with alcohol or substance abuse problems.

2.1.21. Anti-Gang Programs

Gang members are more likely than other students to carry weapons and engage in acts of violence.

- (1) Establish partnerships with local law enforcement to educate teachers and staff about the presence of gangs and their activities.

- (2) Establish gang resistance and violence prevention teams to implement community, family, and youth education programs to provide alternative activities in which children can participate.
- (3) Establish a school dress code that excludes gang-related clothing, paraphernalia, and behavior.
- (4) Inform parents/guardians if their children are suspected of involvement in gangs; refer parents to available programs and resources.

2.1.22. Suicide Prevention

Hopefully, effective suicide prevention will decrease the occurrence of both self-inflicted suicide and violence by students who believe their acts will result in their being killed by others.

- (1) Develop a plan that specifies how to identify students at risk of suicide, how to handle threats, and what actions to take.
- (2) Ensure that students are aware of easy ways to get help.
- (3) Educate students and school personnel on getting help for troubled students before they become victims of suicide.

2.1.23. Training and Technical Assistance for Teachers and Staff

Schools should provide training and technical assistance to teachers and staff on such topics as:

- (1) Conflict resolution and management.
- (2) Hostility and anger management.
- (3) Victim sensitivity and support.
- (4) Crisis/critical incident management.
- (5) Bullying and harassment recognition, prevention, and intervention.
- (6) Who should, how to, and where to refer students and families to social service agencies.
- (7) Classroom management.
- (8) Identifying and defusing potentially violent situations.
- (9) How teachers' and other staff members' own behavior may defuse or escalate conflict.
- (10) How to identify troubled students.
- (11) How to communicate and work with parents/guardians in order to intervene in the behavior of troubled students.
- (12) How to effectively work with classes that have ethnic and economic diversity.

2.1.24. Evaluation

Monitor and evaluate the steps taken to improve school safety.

- (1) Conduct community surveys to determine the

- perceptions of safety, areas of improvement, and the effectiveness of school safety programs.
- (2) Maintain statistics on discipline cases, suspensions, expulsions, students found with weapons, and incidents of verbal or physical harassment.
 - (3) Review and analyze collected information with qualified professionals to suggest new or modified violence prevention strategies.

2.2. Role of Students

The majority of students recognize that they share in the responsibility to prevent school violence. Students should do the following:

- 2.2.1. Know and follow the school's violence prevention policies.
- 2.2.2. Work with administrators and teachers to create a safe way to report threats.
- 2.2.3. Learn about who they can go to with information and concerns about known or potential violence or harassment.
- 2.2.4. Listen to friends who share upsetting thoughts or display troubling, harmful, or dangerous behavior, and encourage them to seek help from a parent, teacher, school counselor, or other trusted adult.
- 2.2.5. Confide in a parent, teacher, or other trusted adult if they persistently (1) feel so "down," sad, or "empty" that they don't want to go out and do things; (2) are not able to sleep; (3) have difficulty concentrating; (4) feel helpless and/or angry; or (5) feel like they are losing control over their thoughts or emotions.
- 2.2.6. Report suspicious behavior and threats of violence and/or suicide to school officials or another responsible adult.
- 2.2.7. Participate and encourage peers to participate in after-school activities with responsible members of the community.
- 2.2.8. Participate in ongoing activities that promote school safety.
- 2.2.9. Act as positive role models for peers and younger students.
- 2.2.10. Be tolerant of other students and their differences.
- 2.2.11. Learn techniques to avoid and cope with negative peer pressure.
- 2.2.12. Speak out and refuse to join in when members of groups are involved in negative behaviors towards others.

2.3. Role of Parents/Guardians

Parents who demonstrate an interest in their own children's lives help prevent youth violence.

2.3.1. Topics to Discuss With Children

- (1) The school's discipline policy.
- (2) The school's safety and security procedures.
- (3) The positive household rules, family values and traditions, behavior expectations, and the reasons behind them.
- (4) The impact of violence in the media and its real-life consequences.
- (5) Solving problems peacefully.
- (6) The value of individual differences.
- (7) Their children's concerns about friends and other people who may be exhibiting threatening or violent behavior.
- (8) Personal safety issues and appropriate responses to them.
- (9) Their children's day-to-day activities, accomplishments, concerns, and problems.

2.3.2. Actions Parents/Guardians Can Take With Children

- (1) Model appropriate behaviors by demonstrating healthy ways to express anger and relieve stress.
- (2) Learn the warning signs for at-risk children and how to get help from school and community professionals.
- (3) Take an active role in their children's education.
- (4) Participate in school safety planning sessions.
- (5) Participate in violence prevention groups in their communities.
- (6) Know their children's friends and their friends' families and establish a network to exchange information with other parents.
- (7) Monitor and supervise their children's reading material, television, video games, Internet chat rooms and websites, and music for inappropriately violent content.
- (8) Monitor and supervise their children's use of the Internet.
- (9) Educate their children about proper use of cell phones and monitor usage.
- (10) Talk to employers for consideration to allow parents who want to participate in school activities.
- (11) If needed, attend anger management, parenting skills, and/or conflict resolution classes.
- (12) Establish and enforce household rules and reward positive behavior.
- (13) Ensure quality childcare.
- (14) Promote a healthy and safe lifestyle by prohibiting the illegal or irresponsible use of alcohol, tobacco, or other drugs in their home.
- (15) If needed, seek out support groups to improve parenting skills and/or to manage anger and frustration.
- (16) Provide a quality after-school environment for their children.

- (17) Make their home a place where children and their well-behaved friends are welcome, comfortable, adequately supervised, and safe.

2.3.3. Firearms and Ammunition

- (1) Keep firearms and ammunition locked up and in separate locations.
- (2) Monitor children's environments for indications of weapons and destructive devices.
- (3) Teach children about the dangers of firearms.
- (4) Be aware and concerned about easily accessible firearms or ammunition at the homes of friends, relatives, and neighbors.

2.4. Role of the Community

In order for a safe schools program to be effective, school officials should make an effort to recruit individual members of the community, local businesses, community service organizations, attorneys, clergy, mental health and child welfare personnel, local community officials (such as town/city councils, county commissions, etc.), family agency staff, and recreational organizations.

2.4.1. Individual Community Member Actions

- (1) Volunteer for mentoring programs, such as Big Brothers/Big Sisters of America.
- (2) Work for an after-school recreation program.
- (3) If qualified, volunteer to provide care for troubled youth and their families.
- (4) Provide services that care for children in need and their families.

2.4.2. Businesses and Community Organization Actions

- (1) Adopt and support a local school.
- (2) Hire high school students as part-time employees.
- (3) Actively seek out student volunteers and interns.
- (4) Allow employees who are students time off to study and during final exams.
- (5) Allow time off for employees who want to attend their children's school activities.
- (6) Provide basic job skills training to students.
- (7) Develop a scholarship program.
- (8) Provide needed services, facilities, equipment, etc., to schools.
- (9) In cooperation with school administrators, create positive community service-learning experiences for young people.
- (10) Work with school administrators to provide career information.

2.5. Role of Law Enforcement

Law enforcement should work with schools to formulate district-

wide and school-specific violence prevention programs and crisis response plans.

2.5.1. Police Training

- (1) Address the conditions that contribute to school violence.
- (2) Provide in-service training that addresses factors influencing school violence, conflict resolution, school violence scenarios, and response guidelines.
- (3) Train officers to interact with school administrators, teachers, and students.
- (4) Train selected officers to conduct school security assessments.
- (5) Train selected officers on school-related threat assessment and responses.

2.5.2. Police Activities

- (1) School Resource Officers (SROs) can deter violence and other forms of misconduct by being a visible presence at the school and by helping the school develop and implement violence prevention programs.
- (2) Develop and maintain working partnerships with area schools.
- (3) Work with schools, parents/guardians, and truants to lower truancy.
- (4) Consult with school administrators, teachers, and parents/guardians about school security.
- (5) Provide guidance, in accordance with legal counsel, to school personnel on how to spot concealed weapons and what steps police personnel should take when they suspect students are carrying weapons.
- (6) Provide information about police department resources to schools, students, and parents/guardians.
- (7) Provide schools with guidelines and examples of when to contact the police.
- (8) Assist school officials with the screening of employees and staff-like volunteers, including checking criminal history files and sex offender registries.
- (9) Serve on school threat and disciplinary action assessment teams, along with teachers, administrators, and counselors.
- (10) Maintain a constructive relationship with students, parents, and school employees through the following activities:
 - (a) Bicycle registration drives
 - (b) Sponsored recreational activities
 - (c) Explorer and cadet programs
 - (d) Parent, student, and teacher in-service training programs

- (11) Participate in programs for juvenile offenders using interventions that are appropriate for their risk factors and violations.
- (12) Make follow-up visits to the homes of juvenile offenders.
- (13) Develop task forces aimed at enforcing laws among minors.
- (14) Develop a plan for cracking down on illegal gun sales and work to educate parents/guardians on firearm safety, including the proper storage of weapons in the home.
- (15) Enforce existing truancy laws.
- (16) Use other agencies and law enforcement as resources to determine the best possible safe school strategies for the community.

3. THREAT ASSESSMENT

Threats are alarming statements or behaviors that give rise to concern about subsequent violence. Possible components of threat assessment strategies include the following steps:

- 3.1. Establish a threat assessment team to assess serious threats.
- 3.2. Define the nature and scope of threats that evoke the involvement of the threat assessment team.
- 3.3. Establish a policy to ensure that reports of threats submitted from inside and outside the school are routed to the appropriate administrator and investigated.
- 3.4. Establish procedures for recording and monitoring threats.
- 3.5. Ensure cooperation between local law enforcement and school authorities in collecting and preserving evidence of threats.
- 3.6. Evaluate situations when a threat has been made and, if warranted, notify the potential victims.
- 3.7. Consider the costs and benefits of providing increased protection to threatened persons.
- 3.8. Determine if additional security measures should be put in place after a threat.
- 3.9. Counsel potential victims about the various civil and criminal options available to them.
- 3.10. Learn what procedures should be taken to screen mail and packages left on school property after a threat has been made.
- 3.11. Establish policies for releasing any threat-related information to the community or media.
- 3.12. Threat Incident Report

School and school district policy should require students and

employees to report all threats or incidents of violent behavior they observe or are informed about to the Designated Administration Representative (DAR). The DAR should take the steps necessary to complete a threat incident report as quickly as possible, including private interviews of the victim(s) and witness(es). The report will be used by the threat assessment team to assess the safety of the school and to decide upon a plan of action. It should include:

- 3.12.1 Name of the threat-maker and his/her relationship to the school and the recipient.
 - 3.12.2. Name(s) of the victims or potential victims.
 - 3.12.3. When and where the incident occurred, or was planned to occur.
 - 3.12.4. What happened immediately prior to the incident.
 - 3.12.5. The specific language of the threat.
 - 3.12.6. Physical conduct that would substantiate intent to follow through on the threat.
 - 3.12.7. How the threat-maker appeared (physically and emotionally).
 - 3.12.8. Names of others who were directly involved and any actions they took.
 - 3.12.9. How the incident ended.
 - 3.12.10. Names of witnesses.
 - 3.12.11. What happened to the threat-maker after the incident.
 - 3.12.12. What happened to the other students or employees directly involved after the incident.
 - 3.12.13. Names of any administrators, teachers, or staff involved and how they responded.
 - 3.12.14. What event(s) triggered the incident.
 - 3.12.15. Any related history leading up to the incident.
 - 3.12.16. The steps that have been taken to ensure the threat will not be carried out.
 - 3.12.17. Suggestions for preventing school violence in the future.
- 3.13. The DAR and the threat assessment team should record elements of the threat incident report and any subsequent actions relating to the incident on a tracking system. Such systems range from simple card files to commercially available relational databases. The tracking system, as well as all investigative files, should be kept secure and maintained separately from other records.

3.14. Secret Service Threat Assessment Suggestions (Source: Robert Fein & Bryan Vossekuil, National Threat Assessment Center, U.S. Secret Service.)

School and law enforcement officials are frequently placed in the difficult position of having to assess specific people (e.g. students, staff, teachers, and others) who may be likely to engage in targeted violence in which there is a known or knowable target or potential assailant. The following suggestions for threat assessment investigations are based on guidelines developed by the Secret Service's National Threat Assessment Center (NTAC). They were developed primarily for preventing the assassination of public officials and may not be applicable to all school situations.

3.14.1. To identify threats, school officials are advised to:

- (1) Focus on individuals' thinking and behavior as indicators of their progress on a pathway to violent actions. Avoid "profiling" or basing assumptions on socio-psychological characteristics. In reality, accurate "profiles" for those likely to commit acts of targeted violence do not exist. School shootings are infrequent and the great majority of individuals who happen to match a particular profile do not commit violent acts. In addition, many individuals who commit violent acts do not match pre-established profiles.
- (2) Focus on individuals who pose a threat, not only on those who explicitly communicate a threat. Many individuals who make direct threats do not pose an actual risk, while many people who ultimately commit acts of targeted violence never communicate threats to their targets. Prior to making an attack, potential aggressors may provide evidence they have engaged in thinking, planning, and logistical preparations. They may communicate their intentions to family, friends, or colleagues, or write about their plans in a diary or journal. They may have engaged in "attack-related" behaviors: deciding on a victim or set of victims, determining a time and approach to attack, and/or selecting a means of attack. They may have collected information about their intended target(s) and the setting of the attack, as well as information about similar attacks that have previously occurred.

3.14.2 Once individuals who may pose a threat have been identified, ten key questions should guide the assessment of the threat:

- (1) What motivated the individual to make the statement or take the action that caused him/her to come to attention?
- (2) What has the individual communicated to anyone concerning his/her intentions?
- (3) Has the individual shown an interest in targeted violence, perpetrators of targeted violence, weapons, extremist groups, or murder?
- (4) Has the individual engaged in attack-related behavior, including any menacing, harassing, and/or stalking-type behavior?
- (5) Does the individual have a history of mental illness involving command hallucinations, delusional ideas,

- feelings of persecution, etc., with indications that the individual has acted on those beliefs?
- (6) How organized is the individual? Is he/she capable of developing and carrying out a plan?
 - (7) Has the individual experienced a recent loss and/or loss of status, and has this led to feelings of desperation and despair?
 - (8) Corroboration: What is the individual saying, and is it consistent with his/her actions?
 - (9) Is there concern among those that know the individual that he/she might take action based on inappropriate ideas?
 - (10) What factors in the individual's life and/or environment might increase/decrease the likelihood of the individual attempting to attack a target?

4. CRISIS PLANNING AND PREPARATION

Responses for different types of crises should be planned in advance and reviewed, updated, and practiced periodically. The chaos and panic created by these situations cannot be effectively handled without a pre-established, specific plan of action.

Teachers and staff play critical roles in implementing planned responses both before and after emergency response personnel arrive. Their participation in and understanding of the planning is essential.

4.3. Role of School Administrators, Teachers, and Staff

4.3.1. Planning

- (1) Establish a crisis planning team that includes representation from faculty and staff, safety security, professional counselors, and emergency response providers who are knowledgeable about crisis planning and/or would help intervene in a school safety crisis.
- (2) Establish school crisis management teams at district and school levels, as appropriate, utilizing the nationally recognized Incident Command System (ICS).
- (3) Have a working knowledge of all available and needed resources for handling and responding to a crisis situation.
- (4) Include off-site school activities such as field trips in crisis planning.
- (5) Assign all faculty and staff to clearly defined roles under the ICS system.
- (6) Identify and make rearrangements with qualified counselors who would provide the critical incident stress debriefing immediately following a crisis.
- (7) Identify and train on-site building maintenance staff and off-site personnel who will take responsibility for dealing with fire alarms, sprinkler systems, gas, etc.
- (8) Identify personnel who will have master keys, access codes, and access to secured areas at the

- site.
- (9) Publicize the chain of command and designated replacements.
 - (10) Practice how to protect students with physical or developmental disabilities.
 - (11) Establish procedures for an early/late dismissal plan for students and procedures for notifying parents/guardians and media.
 - (12) Practice lockdown and evacuation procedures for different types of crises.
 - (13) Develop an emergency traffic plan capable of protecting emergency response routes and accommodating the likely traffic and parking needs of parents/guardians and media.
 - (14) Pre-designate places for personnel to perform their roles:
 - (a) A designated media contact location.
 - (b) A designated place for parents/guardians.
 - (c) A designated place for clergy.
 - (d) Staging areas for transportation, etc.
 - (15) Establish a “calling tree” or “phone tree” to notify the crisis management team immediately.
 - (16) Make alternative response plans known to key personnel who would communicate the nature of the crisis and the appropriate response; some information may need to be restricted as a security measure.
 - (17) Provide crisis and emergency kits and plan them inside and outside of schools.
 - (18) Consider computer databases to store information on students, teachers, and staff. Hardcopy versions should be available in the event that computers are inaccessible.
 - (19) Provide copies of all emergency and evacuation plans to local law enforcement, fire, and other emergency response agencies.
 - (20) Provide law enforcement, fire, and other emergency response personnel with blueprints, layouts, and floor plans of school buildings and grounds, including information about main leads for water, gas, electricity, cable, telephone, HVAC, alarm and sprinkler systems, and locations of hazardous materials, elevators, and entrances.
 - (21) Consider a system of storage devices that provide staff and emergency response personnel with access to keys at any time of the day or night, such as Knox boxes.

4.3.2. Planning for Donations and Memorials

- (1) Establish a school policy for properly memorializing students and other school personnel.
- (2) Ensure proper accountability for receipt and distribution of donations. Consider utilizing a charitable organization already in place for responsibility of donations.
- (3) Identify how media and community members will be

- (4) informed of where donations should be sent. Establish priorities and policies for distributing monetary donations.
- (5) Prepare, in advance, a link for donations on the school's web site.

4.3.3. Training

- (1) Test emergency plans at various times of the year, involving law enforcement, emergency service agencies, and community members as appropriate.
- (2) Regularly hold training sessions that include law enforcement, other emergency response personnel, schoolteachers, and other school staff.
- (3) Train teachers and staff regarding the types of emergency response information to respond to different types of crises.
- (4) Consider local emergency response personnel, district wide crisis teams, the Utah State Office of Education, as applicable, to provide training.
- (5) Provide cross training to members of the crisis management team and to other school personnel.
- (6) Review the crisis response plan with teachers, principals, staff, volunteers, campus supervisors, and school resource officers.
- (7) Review the crisis response plan with students.
- (8) Provide training to teachers on their assigned or back-up roles during crisis situations.
- (9) Supplement verbal training with a written pamphlet to remind students, teachers, part-time workers, interns, and substitute teachers of their roles.
- (10) Provide training to other persons who are regularly on campus regarding how to respond to different types of crisis scenarios.
- (11) Develop written summaries of crisis response instructions for dissemination to substitutes, new employees, volunteers, etc.
- (12) Provide information to parents/guardians on their roles during crisis situations.
- (13) Decide on an appropriate balance of crisis response information to allow students to feel safe without causing undue fear.
- (14) Provide training to media relations for the appointed media spokespersons during the planning phase.
- (15) Provide information to local media representatives about how to receive and communicate information about crises to the community.
- (16) Teach students, teachers, and staff to recognize the physiological cues experienced in crisis situations.
- (17) Provide emergency first-aid training to teachers, staff, and students.
- (18) Provide staff, teachers, and students with instructions on personal safety awareness and survival skills, on how to report and respond to persons making threats or displaying weapons, and about locating and not giving up safe positions.

- (19) Incorporate crisis preparation training and requirements into teacher education programs at colleges and universities.

4.4. Role of Law Enforcement and Emergency Response Personnel

- 4.4.1. Conduct meetings with representatives from the school community and from all local law enforcement, fire, and other emergency response agencies to obtain, develop, and coordinate school site safety plans.
- 4.4.2. Maintain information in vehicles of first responders about school sites' layouts, building floor plans, and aerial maps. Update as needed.
 - (1) Create systems by which students, teachers, and staff hearing commands (e.g., "Open the door") may be better able to identify that they came from official law enforcement instead of from offenders.
 - (2) Work toward integrating disparate law enforcement and emergency response communication technologies to enable more effective communication between agencies during crises.
 - (3) Develop and provide training on the Incident Command System (ICS).

5. DURING A MAJOR CRISIS

The following are suggestions for responses during and after school crises in which one or more individuals have been victimized by violence.

5.1. The Role of School Administrators, Teachers, and Staff

5.1.1. Immediate Response

- (1) Responding personnel will have to use individual judgment as to what they can and should do first, keeping in mind that their primary role is taking care of children at risk.
- (2) Assess whether anyone is injured and the severity of injuries, and then take appropriate measures.
- (3) Call 911 in immediate life-threatening situations.
- (4) Activate silent alarms to notify local law enforcement.
- (5) In the event that a teacher cannot call or leave the classroom, send students for help only if absolutely necessary and if it does not put them in more danger than they would be in by evacuating or remaining with their class.
- (7) Determine appropriate level of involvement of the crisis management team.
- (8) Have appointed staff begin the calling/phone tree before phone lines get overloaded.
- (9) Remain with students until notified by appropriate personnel of what actions to take.

5.1.2. Implementing the Crisis Management Plan

- (1) Secure all areas for students' and staff's safety until the police arrive.
- (2) Avoid unnecessarily tampering with or disturbing evidence. The site may be a crime scene.
- (3) Communicate to emergency responders where the school staff command post is located.
- (4) Direct families to predesignated locations where they can receive information.
- (5) Do not dismiss students to unknown care.
- (6) Have procedures in place to release students to parents/guardians, or other individuals designated on the students' emergency contact list.
- (7) Follow all rules regarding repeating or giving out information. Refer dispersal of information to the designated Public Information Officer (PIO).
- (8) As appropriate, keep students informed in individual classrooms rather than large group settings.
- (9) Account for students, staff, and teachers as soon as possible.
- (10) Shield students from upsetting and/or graphic scenes without disturbing crime scene evidence.

5.2. Role of Students

- 5.2.1. In the absence of adult direction, decide where it is safest to be and remain there.
- 5.2.2. Notify the first available adult if a violent situation occurs.
- 5.2.3. Share all relevant information with law enforcement, teachers, and school staff.
- 5.2.4. During and after the crisis, keep with you what is on your person, do not pick anything up, and do not go back for anything until after receiving permission to do so.
- 5.2.5. Assist teachers and staff in quickly assessing who is and who is not missing.
- 5.2.6. Provide assistance to injured persons.
- 5.2.7. Calm and reassure fellow students.
- 5.2.8. Follow directions from designated officials about where to go or remain.
- 5.2.9. Do not speculate or perpetuate rumors to others
- 5.2.10. Do not take unnecessary chances.

5.3. Role of Law Enforcement

- 5.3.1. Respond to all reports of criminal activity rapidly to ensure immediate intervention in all emergency situations.

- 5.3.2. Exercise appropriate rules when immediate intervention is needed, keeping safety of persons foremost.
- 5.3.3. Adhere to direction from the Incident Command System.
- 5.3.4. Provide traffic control assistance to enable emergency services to get to the crisis location.
- 5.3.5. Develop lines of communication with affected schools' administrations and district emergency operation centers or command posts as applicable.
- 5.3.6. Follow approved collection procedures and protect relevant evidence from contamination.
- 5.3.7. Assist parents guardians in locating their children
- 5.3.8. Be prepared to assist with many unforeseeable duties.

6. AFTER A CRISIS

Actions taken after severe acts of violence can have a major effect on the well-being of students and the community at large.

6.1. Role of School Administrators

6.1.1. Support Systems

- (1) Implement plans for providing short-term and long-term counseling to students, faculty and staff.
- (2) Take into account multilingual needs when providing information and counseling.
- (3) Maintain both an information line and special call-in line for victims and their families whenever large groups of students are affected.
- (4) Keep in close contact with injured victims and/or surviving family members.
- (5) Determine the need for additional health services and resources for increased physical needs of students.
- (6) Hold meetings to provide staff with information related to the crisis, eliminate rumors, advise them of next steps, and advise them about what to tell their students.
- (7) Develop written statements for teachers to read in class. Send similar statements to parents.
- (8) Help students, faculty, and staff deal with their own reactions before they interact with their students, working to ensure they are cautioned about relaying personal opinions to students.
- (9) Hold a special meeting with victims and their siblings.
- (10) Ensure that each school in the district supports siblings of victims by providing them with additional reassurances of safety and academic support.
- (11) Provide places and times for members of peer groups to meet and counsel each other.
- (12) Designate "safe rooms" where students, teachers,

- and staff can receive comfort and counseling and talk about events during the crisis.
- (13) Provide information to parents/guardians who want to know how to help children cope with feelings about the crisis.
 - (14) Hold workshops for students who feel angry about the crisis to express their feelings.
 - (15) Keep parents/guardians informed of support services available to their children.
 - (16) Provide a place after the crisis for parents/guardians to meet with counselors, other adults, and applicable professionals to discuss ways to help their children transition back to school.
 - (17) Provide a list of suggested readings to teachers, parents, and students.
 - (18) Evaluate whether community forums should be initiated for people to air their concerns or discuss other issues pertaining to school safety.
 - (19) Fund time for teachers to work with students needing academic support due to problems such as grief, stress, difficulty concentrating, and anxiety.
 - (20) Ensure participation of parents, guardians and community members that does not use additional administrative time.
 - (21) Provide orientation for students and their families when violent events have occurred.

6.1.2. Managing the School Environment after Violence

- (1) Maintain close cooperation with investigating authorities to facilitate completing investigations and minimizing complications.
- (2) Deal with problems of deceased students' desks and lockers.
- (3) Remove deceased students' names from forms, posters, rosters, absence reporting logs, and anywhere else they occur in reporting systems.
- (4) Evaluate how affected areas in the school site where school violence took place should be handled when students return to school.

6.1.3. Memorials, Funerals, and Incident Anniversaries

- (1) Allow absences and time off for students, teachers, and staff who wish to attend funerals and memorials.
- (2) Allow families who are planning memorials and activities to honor victims in a manner that complies with policy.
- (3) Arrange a quiet area for staff and students who do not wish to attend memorials or activities.
- (4) Avoid conducting funerals at school.
- (5) Assess the appropriateness of memorials to victims on school premises, particularly in the case of religious memorials. Consider alternative sites, and consider living memorials such as trees as an option.

- (6) Include students, families of victims, and community members in planning memorials.
- (7) Establish a policy for how school administration should handle students or community members independently establishing memorials.
- (8) Assess whether families want recognition of victims at graduation ceremonies, at assemblies, in yearbooks, and on anniversaries of the crisis. At graduations, chairs for those victims could be left empty and their names read.
- (9) Invite family members of victims to all ceremonies and memorials.
- (10) Plan ahead for the attention the school will receive on the one-year anniversary of the incident.
- (11) Plan ahead for the emotional needs of the school community on anniversaries.
- (12) Consider the special needs of families of offenders.
- (13) Ensure the safety of the home from theft, vandalism, etc., of the victims/perpetrators during funerals or memorial services.

6.1.4. Closure of Mourning Period and Moving Forward

- (1) Consult with counselors, teachers, students, and staff about when would be the most appropriate time to signal closure of the mourning period.
- (2) Conduct a public ceremony to symbolize closure of the mourning period.
- (3) Hold a parents' night to bring closure to the crisis.
- (4) Get school in session and moving forward as soon as possible.

6.1.5. Lessons Learned

- (1) Conduct meetings with LEA personnel, as applicable, to review lessons learned and the overall experience.
- (2) Reevaluate and make modifications to the crisis and safety plan based on lessons learned.
- (3) Write thank you notes to out-of-building district and community resource people who provided support during the crisis.

6.2. Role of Teachers and Staff

- 6.2.1. Cooperate with law enforcement to maximize investigative effectiveness.
- 6.2.2. Help students reenter the school environment.
- 6.2.3. Provide accurate information to students and dispel rumors.
- 6.2.4. Provide activities to reduce stress and trauma.
- 6.2.5. Alter cumulates and postpones testing as needed.
- 6.2.6. Ensure that books are available that deal with managing

grief and other reactions to crisis situations.

- 6.2.7. Train teachers to be aware of warning signs of grief and depression.
- 6.2.8. Train teachers to implement techniques to deal with students' emotions related to crisis situations.
- 6.2.9. Have class discussions about the incident and how to cope with the aftermath.
- 6.2.10. Use caution with TV broadcasts in the classroom. Live newscasts can be traumatizing.
- 6.2.11. Lower school flags to half-staff.
- 6.2.12. Discuss funeral procedures when appropriate.
- 6.2.13. Volunteer to help victims and their families.
- 6.2.14. Organize and participate in memorials and other activities.
- 6.2.15. Seek counseling for help in dealing with personal feelings about the incident.

6.3. Role of School Counselors, Psychologists, and Social Workers

- 6.3.1. Keep in close contact with the counseling director of the Crisis Management Team.
- 6.3.2. Be available for those needing assistance.
- 6.3.3. Visit the classes of any seriously injured or deceased students and their close friends.
- 6.3.4. Provide individual and group counseling as needed to students, teachers, and staff.
- 6.3.5. Contact parents/guardians of affected students with suggestions for counseling support and referrals.
- 6.3.6. Locate appropriate counseling assistance throughout the community.
- 6.3.7. Establish a self-referral procedure and make referral forms available.
- 6.3.8. Provide and advise counseling for the crisis team and emergency response personnel.
- 6.3.9. Keep records of affected students and provide follow-up services.
- 6.3.10. Accept other responsibilities as designated by the Crisis Management Team director.

6.4. Role of Parents

- 6.4.1. Learn to recognize and help children with their reactions to

crisis/emergency situations.

- 6.4.2. Encourage children to receive counseling or speak to a trusted adult about their feelings.
 - 6.4.3. Consider attending school with children who are fearful of returning to class.
 - 6.4.4. If needed, obtain counseling to remain physically and emotionally healthy.
- 6.5. Role of the Community
- 6.5.1. Volunteer time and resources to victims.
 - 6.5.2. Provide services to meet the needs of victims.
 - 6.5.3. Provide a location where members of the community can go to receive information about the types of assistance needed and/or available.
- 6.6. Role of Local Law Enforcement
- 6.6.1. Conduct a thorough investigation and debriefing of all persons present at the time of the incident.
 - 6.6.2. Encourage the use of regional Critical Incident Stress Debriefing Teams for involved emergency personnel.
 - 6.6.3. Coordinate with the affected school(s) and other agencies to assist victims' families in locating survivors.
 - 6.6.4. Encourage schools to support their employees and students in prosecution of people who commit acts of violent crime.
 - 6.6.5. Encourage law enforcement and schools to coordinate their news releases.
 - 6.6.6. Provide schools with a central point of contact in the police department who will answer questions and address concerns.
 - 6.6.7. Encourage students and school employees to participate in aftermath debriefings.
 - 6.6.8. Facilitate meetings in which teachers, staff, students, and parents/guardians can express their thoughts on how police handled the incident.
 - 6.6.9. Coordinate critique of the department's response after a serious incident of school violence and identify areas in need of improvement.

APPENDIX E

SAMPLE EMERGENCY PREAREDNESS FORMS AND RESOURCES

**UNSAFE BUILDING EVACUATION
PLAN WORKSHEET**

Person in Charge of School:

Alternate:

STAFF ASSIGNMENTS

DUTY _____	STAFF NAME _____
ALTERNATE _____	

All teachers are to stay with classroom groups or assigned neighborhood groups.

Notify the following from an offsite location:

Emergency assistance; 911 or _____

Security: _____

Superintendent/Board Chair: _____

Transportation _____

Search halls, restrooms, common areas, and kitchen.

Replacements for missing or injured teachers.

Provide medical assistance.

Shut off power, gas, and water.

Notify the following as appropriate:

PTA or other Parental Volunteer Group Evacuation Leader

Name _____ Phone _____

PTA or other Parental Volunteer Group Evacuation Alternative Leader

Name _____ Phone _____

KSL 1160: Phone (801) 575-5555 After Hours: (801) 575-5500

Activate CALLING TREE:

Post premade signs and direct the public.

Lead students and teachers to alternate site.

(Attach map and agreement)

Site 1 _____

Site 2 _____

Emergency Equipment

- | | |
|------------------------------------|-----------------------------|
| _____ Air horn or bell | _____ Radio (battery/solar) |
| _____ First aid kit | _____ Lights/lanterns |
| _____ Answering machine | _____ Unlisted phone line |
| _____ Generator | _____ Megaphone |
| _____ Evacuation plan/master lists | _____ Paper/marker pens |
| _____ Evacuation boxes | _____ Stretcher |

Other:

SAFE BUILDING EVACUATION

PLAN WORKSHEET

Person in Charge of School:

Alternate:

DUTY _____	STAFF ASSIGNMENTS
ALTERNATE _____	STAFF NAME _____

Notify Superintendent/Board Chair:

Notify as appropriate:

PTA Evacuation Leader

Name _____ Phone _____

PTA Evacuation Alternate

Name _____ Phone _____

KSL 1160: Phone (801) 575-5555 After Hours: (801) 575-5500

Activate CALLING TREE: Phone _____

Call students and teachers to prearranged inside locations.

Post premade signs and direct the public.

Sign out students to responsible adults.

Emergency Equipment

_____ Air horn or bell

_____ Radio (battery/solar)

_____ First aid kit

_____ Lights/lanterns

_____ Answering machine

_____ Unlisted phone line

_____ Generator

_____ Megaphone

_____ Evacuation plan/master lists

_____ Paper/marker pens

_____ Evacuation boxes

_____ Stretcher

IF A LONG-DURATION STAY IS REQUIRED:

Trauma, shock, medical care

Provide light and warmth

Food arrangements

Sleeping accommodations

Internal communication/morale

Other:

SCHOOL EVACUATION INSTRUCTIONS

Person in Charge of School:

Alternate:

EXIT THE BUILDING

...when an alarm sounds or the instruction "leave the building" is announced.

EVACUATION INSTRUCTIONS

TEACHERS

- Take class lists/rolls.
- Make special provisions to assist disabled students.
- Exit the building through assigned exit or nearest unblocked exit.
- Lead the class out of the building to pre-designated area at least 300 feet from the building. Area must be free from hazards such as overhead power lines, gas lines, and motor vehicle traffic.
- Take roll and report any missing students (by name) to the principal/director or designee at a pre-designated location away from building.

STUDENTS

WITH home-base classes:

- Leave ALL personal items in classroom.
- Follow their teacher and exit in a quiet and orderly manner.

NOT with home-base classes:

- Leave ALL personal items in classroom.
- Exit with supervisor or, if alone, exit through the nearest unblocked exit.
- Join home-base class outside.

STAFF NOT ASSIGNED TO CLASSROOMS

- Check restrooms, common areas and kitchen as pre-designated by school principal.
- Keep children out of vehicle traffic areas and other hazardous areas.

PRINCIPAL/DIRECTOR OR DESIGNEE

- Report any missing persons to emergency response personnel.
- If building is determined to be safe to reenter:
 - Determine WHEN it is safe to reenter.
 - Notify teachers by megaphone, flag, hand signal, or runner.
 - DO NOT USE FIRE ALARM SIGNAL for reentry.
- IF BUILDING IS UNSAFE TO REENTER, EVACUATE THE SCHOOL SITE, USING PREDETERMINED PLAN.

Instruct teachers to:

- Release students to responsible adults using predetermined procedure.
- Escort remaining children to an alternate predetermined site, such as a church, city hall, another school, or school buses.

BOMB THREAT (Sample)

RECEIVING A BOMB THREAT

INSTRUCTIONS:

Be calm and courteous. LISTEN! Do not interrupt the caller. Quietly attract the attention of someone nearby, indicating to him/her the nature of the call. Complete this form as soon as the caller hangs up and the school administration has been notified.

NAME OF OPERATOR:

TIME:

DATE:

CALLER IS (check appropriate boxes):

Male _____

Female _____

Adult _____

Juvenile _____

ORIGIN OF CALL:

Local _____

Long distance _____

Booth _____

Within school _____

CALLER'S VOICE CHARACTERISTICS:

Loud _____

Deep _____

High-pitched _____

Persistent _____

Raspy _____

Other _____

Soft _____

CALLER'S SPEECH:

Fast _____

Distinct _____

Stutter _____

Distorted _____

Nasal _____

Other _____

CALLER'S LANGUAGE:

Excellent _____

Fair _____

Good _____

Poor _____

Foul _____

Other _____

CALLER'S ACCENT:

Local _____

Race _____

Foreign _____

Can't identify _____

CALLER'S MANNER:

Irrational _____

Calm _____

Rational _____

Coherent _____

Deliberate _____

Angry _____

Incoherent _____

Emotional _____

Laughing _____

BACKGROUND NOISES:

Factory _____

Bedlam _____

Music _____

Machines _____

Mixed _____

Animal _____

Planes _____

Other _____

RELATED FACTS:

Ask questions like:

When will it go off? _____ Hour? _____ Time left? _____

What kind of bomb? _____ Where are you now? _____

How do you know so much about the bomb? _____

What is your name? _____

Address? _____

SAMPLE LOG FOR SCHOOL FIRE AND OTHER EMERGENCY DRILLS (See 3.8.12.)

YEAR

PRINCIPAL:

SCHOOL:

Date

Time Required for Evacuation

Type of Drill

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____
- 11. _____
- 12. _____

APPENDIX F

RECOMMENDED BASIC FIRST AID EQUIPMENT AND SUPPLIES

Item	Size	Quantity	Amount Suggested for 30 People for One Day	Amount Suggested for 500 People for One Day
Band-Aid, flexible	1 x 3	100/box	1/3 box	5 boxes
Fabric	¾" x 3"	100/box	1/3 box	5 boxes
Steripads, Johnson & Johnson	2" x 2"	100/box	1/3 box	5 boxes
	3" x 3"	100/box	1/3 box	5 boxes
Steripads, non-stick Johnson & Johnson	2" x 4.5"	50/pkg	1 package	10 packages
Surgical tape, Fabric	1" x 5"	1 roll	1 roll	50 rolls
		1 roll	½ roll	25 rolls
Gloves, vinyl	Small	100/box	10 gloves	2 boxes
	Medium	100/box	40 gloves	6 boxes
	Large	100/box	10 gloves	2 boxes
Antiseptic soap	Pint	1 pint	½ pint	5 pints
Alcohol, isopropyl	Pint	1 pint	1 pint	100 pints
Cotton balls	Standard	65/box	1 box	5 boxes
Cotton swabs	Standard	1000/box	50 swabs	1 box
Tongue depressor	5.5" x 5/8"	500/box	30 blades	1 box
Gauze bandage	2" x 10 Yd.	1 roll	1 roll	50 rolls
Elastic bandage	3" x 62"	1 roll	1 roll	5 rolls
	4" x 62"	1 roll	1 roll	5 rolls
	6" x 62"	1 roll	1 roll	5 rolls
Cervical collar	Small	1 collar	N/A	1 collar
	Medium	1 collar	N/A	1 collar
	Large	1 collar	N/A	1 collar
Thermometer, oral	Standard	1	1	5
Thermometer cover	Standard	50/box	5 covers	2 boxes
Bulb syringe	Small	1	1	5
Triangle-shape sling	Standard	1	1	50
Cold pack, instant	6" x 9"	1	1	50
Hot pack, instant	6" x 9"	1	1	50
Splint, cardboard	Arm 1	1	N/A	5
Tidy towels	13" x 19"	500/case	30 towels	1 case
Plastic trash bags	All sizes	N/A	1 bag med.	100 bags med.
Tissues	Standard	150/box	1 box	5 boxes
Pen-light battery	Standard	1	1	10
Sanitary napkins (also use as pressure bandages)	Standard	100/box	5 napkins	1 box
Safety pins	Medium	100/box	¼ box	2 boxes
Tweezers	Standard	1	1	5
Stretcher	Standard	1	N/A	1
Backboard	Standard	1	N/A	1

RECOMMENDED EQUIPMENT AND SUPPLIES

Equipment or Supplies	Description	Quantity
Shovels	Square point	2
Shovels	Round point	2
Wrecking bar	Minimum 36-inch	1
Nylon rope	¼ inch	300 feet

APPENDIX G

ADDITIONAL SOURCES

Constitution of Utah. Art. VI-30 (Continuity of Government)

Utah Code Annotated 1943 4-18-18 (Utah Conservation Corps assists with disasters)

Utah Code Annotated 1953 63-5-1 (Emergency Management)

Utah Code Annotated 1953 63-5a-1 to 11 (Disaster Response and Recovery.)

Utah Code Annotated 1953 78-1 1-22 (Good Samaritan Act–Emergency assistance, no liability for)

Utah Administrative Code, 2006 R277-400. (Emergency Preparedness Plan.)

<http://www.rules.utah.gov/publicat/code/r277/r277-400.htm>

Utah Administrative Code, 1991 R707-5 (Public School Buildings)

Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). (Requires establishment of LEPC, Local Emergency Preparedness Planning Committee)

3 1-3. Life Safety Code, Pamphlet 101, 1985 (National Fire Protection Association)

Guide for Preventing and Responding to School Violence (International Association of Chiefs of Police, National Sheriffs Association, Bureau of Justice Assistance, and the U.S. Department of Defense Security Research Center)

Guidelines for School Emergency Planning

<http://beready.utah.gov/documents/SCHOOLPREPAREDNESSGUIDELINES.pdf>

State and Local School Emergency Planning Guides

http://www.edfacilities.org/rl/statelocal_emergency.cfm

National Association for School Safety and Law Enforcement Officers

<http://nassleo.org/>

Parent Broadcast, Inc.

<http://www.Parent-Broadcast.com>

GLOSSARY

1. **Advance alert.** Highest federal civil readiness level. At this level, primary emergency operating centers of the federal government at headquarters, regions, and other major field offices will be manned.
2. **Alert signal.** A three-to-five-minute steady tone sounded strictly at the option and on the authority of local government officials. The signal may be activated for natural or manmade disasters as local authorities may determine, and may also be used to call attention to essential emergency information.
3. **Allocation.** The process of allocating geographically defined areas of population to specific shelter facilities, or to host areas.
4. **Alternate Emergency Operating Center (AEOC).** A facility that can be used to coordinate and direct all government emergency response efforts if the primary EOC facility becomes inoperable during emergencies. The facility also houses key governmental officials forced to evacuate from the primary EOC.
5. **Amber Alert plan.** Provides law-enforcement agencies with a powerful tool to help recover abducted children and quickly apprehend the suspect. When an Amber Alert is activated, law-enforcement agencies immediately gain the assistance of thousands of community members who provide additional eyes and ears.
6. **American Red Cross (ARC).** The American Red Cross volunteer organization has recognized the necessity for working closely with government at all levels in planning for and providing assistance to disaster victims. The ARC operates under a congressional charter. All disaster assistance from the American Red Cross is based on verified disaster-caused need, and is an outright grant from donations from the American people.
7. **Annex.** A plan element devoted to one part of emergency operations that describes the jurisdiction's approach to functioning in that component area of activity in response to emergencies caused by any hazard that might affect the community.
8. **Appendix.** A plan element attached to a functional annex to provide information on special approaches or requirements generated by unique characteristics of specified hazards identified as being of particular concern to the jurisdiction.
9. **Applicant.** The state or local government submitting a project application or request for direct federal assistance under the Disaster Relief Act of 1974, or on whose behalf the governor's authorized representative takes such action.
10. **Attack warning.** A civil defense warning that an actual attack

against this country has been detected.

11. **Attack warning signal.** A three-to-five-minute wavering tone on sirens, or short blasts on horns or other devices, repeated as necessary. It means that an actual attack against this country has been detected and that protective action should be taken immediately. As a matter of national civil defense policy, the attack warning signal shall not be used for other purposes and have no other meanings.
12. **Casualty.** A person injured, and needing treatment, or killed because of manmade or natural disaster.
13. **Civil Air Patrol (CAP).** An auxiliary of the U.S. Air Force, which has volunteered its services to conduct various emergency services missions. These missions mainly use light aircraft in search-and-rescue, civil defense, and disaster relief operations.
14. **Civil defense (CD).** All those activities and measures designed or undertaken (1) to minimize the effects upon the civilian population caused or which would be caused by an attack upon the United States or by a natural disaster, (2) to deal with the immediate emergency conditions which would be created by any such attack or natural disaster, and (3) to effectuate emergency repairs to, or the emergency restoration of, vital utilities and facilities destroyed or damaged by any such attack or natural disaster.
15. **Civil preparedness circular (CPC/CPGL).** A collection of documents prepared by FEMA as guidance for state and local management personnel. It describes the federal programs, recommends actions to be taken at the state and local levels, and serves as a major source of technical and administrative information.
16. **Comprehensive emergency management.** An integrated approach to the management of emergency programs and activities for all four phases of emergency management (mitigation, preparedness, response, and recovery), for all types of emergencies and disasters (natural, manmade, and attack) and for all levels of government (local, state, and federal) and the private sector.
17. **Contamination, radiological.** The deposit of radioactive material on the surfaces of structures, areas, objects, or personnel following a nuclear explosion or accidental release of radioactive material.
18. **Continuity of government.** All measures that may be taken to assure the continuity or essential functions of government in the event of a disaster.
19. **Damage assessment.** The appraisal or determination of the actual effects resulting from manmade or natural disasters.
20. **Damage survey report (DSR).** A comprehensive engineering report prepared by a federal-state-local team that outlines the

scope of work and estimated cost of repairs at each site of damage that has occurred as a result of disaster.

21. **Decontamination, radiological (DCOM).** The reduction or removal of the health hazard resulting from contaminated materials. This may be accomplished by (1) treating the surface to remove the contaminated agent, or reduce it to a safe level; (2) letting the radioactive material stand long enough for a reduction of the concentration of radiation through natural decay; (3) covering the substance with a sealing material; and (4) removing radioactive material and burying it, on land or at sea, or entombing it.
22. **Disaster.** An occurrence of a severity and magnitude that normally results in death, injuries and property damage and that cannot be managed through the routine procedures and resources of government. It usually develops suddenly and unexpectedly and requires immediate, coordinated, and effective response by multiple government and private sector organizations to meet human needs and speed recovery.

A disaster, as defined in the Disaster Relief Act of 1974, is any hurricane, tornado, storm flood, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mud slide, snow-storm, drought, fire, explosion, or other catastrophe in any part of the United States that, in the determination of the President, causes damage of sufficient severity and magnitude to warrant major disaster assistance above and beyond emergency services by the federal government to supplement the efforts and available resources of states, local governments and private relief organizations in alleviating the damage, loss, hardship, or suffering caused by a disaster.

23. **Division of Comprehensive Emergency Management (CEM).** The branch of state government in the Department of Public Safety responsible for the comprehensive emergency program for the state.
24. **Electromagnetic pulse (EMP).** A plane-wave, line-of-sight, electromagnetic field produced by a nuclear detonation at altitudes greater than 30 km above the surface of the earth. The electric field strength may reach 50,000 volts/meter in the horizontal plane, and 20,000 volts/nanoseconds. About 99.9 percent of all the energy is concentrated below 100 MHz.
25. **Emergency.** A disaster occurrence or a situation that seriously threatens loss of life and damage to property. It usually develops suddenly and unexpectedly and demands immediate, coordinated, and effective response by government and private sector organizations to protect life and limit damage to property.

An emergency, as defined in the Disaster Relief Act of 1974, is any of the various types of catastrophes included in the definition of a major disaster that require federal emergency assistance to supplement state and local efforts to save lives and protect property, public health and safety, or to avert or lessen the threat of a disaster.

26. **Emergency action notification.** Quick-response notification during the initial stages of crisis situations.
27. **Emergency action steps.** Those actions that facilitate the ability of government personnel to respond quickly and efficiently to emergencies.
28. **Emergency Broadcast System (EBS).** A national communication and warning system designed to broadcast emergency messages to the public via radio and television stations.
29. **Emergency management.** Organized analysis, planning, decision making, and assignment of available resources to mitigate, prepare for, respond to, and recover from the effects of all hazards.
30. **Emergency Management Assistance (EMA).** A FEMA program of financial contributions to assist the states and their political subdivisions to develop a capability for emergency management by assisting them on a 50-50 funds-matching basis in meeting all necessary and essential administrative expenses for salary, wages, and personnel benefits on a full- or part-time basis. Included are the costs of travel, office utilities, insurance, and other expenses of a predominately administrative nature.
31. **Emergency operating center (EOC).** A centralized location where direction and control information collection is evaluated and displayed, where coordination among response agencies takes place, and where resources are managed.
32. **Emergency operations plan.** A document that clearly and concisely describes a jurisdiction's emergency organization, its means of coordination with other jurisdictions, and its approach to protecting people and property from the effects of disasters caused by any of the hazards to which the community is particularly vulnerable. It assigns functional responsibilities to the elements of the emergency organization and details tasks to be carried out at times and places projected as accurately as permitted by the nature of each situation addressed.
33. **Emergency program manager/management coordinator/director.** The individual responsible on a day-to-day basis for the jurisdiction's effort to develop a capability for coordinated response to and recovery from the effects of large-scale disasters. The program coordinator/manager is the link at the state and local level to the country's nationwide director, control, and warning system.
34. **Emergency public information.** Information that is disseminated primarily, but not unconditionally, at the actual time of an emergency and, in addition to providing information as such, frequently directs actions, instructs, and transmits direct orders.
35. **Emergency shelter.** A form of mass or other shelter provided for the communal care of individuals or families made homeless by a major disaster or an emergency.

36. **Evacuation.** Organized, timed, and supervised dispersal of populations from dangerous and potentially dangerous areas.
37. **Evacuation area.** A total area encompassed by the reception area necessary to receive evacuees of a target or group of closely related targets.
38. **Evacuees.** All persons moved, or moving, from disaster areas to reception areas.
39. **Executive order.** A rule of order having the force of law, issued by an executive authority of a government Executive Officer.
40. **Exercise.** A maneuver, or simulated national security, natural, or manmade disaster operation involving planning, preparation, and execution. It is carried out for the purpose of training and evaluation. It may be a combined, unified, joint, or single-service exercise, depending on participating organizations.
41. **Fallout protection factor (FPF).** A numerical factor (ratio) of gamma radiation exposure at an unprotected location to exposure at a protected location. It is a calculated value suitable as an indicator of relative protection.
42. **Fallout, radioactive.** The process or phenomenon of the fallback to the earth's surface of particles contaminated with radioactive material from a cloud of this matter formed by a nuclear detonation. The term is applied in a collective sense to the contaminated particulate matter itself. The early (or local) fallout is defined, somewhat arbitrarily, as those particles that reach the earth within 24 hours after a nuclear explosion. The delayed (or worldwide) fallout consists of the smaller particles that ascend into the upper troposphere and into the stratosphere and are carried by winds to all parts of the earth. The delayed fallout is brought to earth mainly by rain and snow, over extended periods ranging from months to years.
43. **Fallout shelter.** A specially built structure for protecting people, records, or equipment from the effects of a nuclear detonation.
44. **Fallout shelter criteria.** A protection factor (PF) of 40 or greater, a minimum of 10 square feet of shelter floor space, 65 cubic feet of space per person, and at least 3 cubic feet of fresh air per minute per person capacity is based on minimum space requirements. In unventilated underground space, 500 cubic feet of space per person is required. To qualify for inclusion in the national inventory, a facility must afford protection for at least 10 persons in a shelter area.
45. **Fallout warning.** A warning of radiation hazards resulting from nuclear attack.
46. **Federal Coordinating Officer (FCO).** A federal official appointed as such by the President for each major disaster. He/she is responsible for making an initial appraisal of the types of assistance most urgently needed and for rendering federal disaster assistance as expeditiously as possible. This is done by

bringing together all federal agencies having assigned disaster assistance programs and responsibilities and coordinating their activities, establishing a field office at the disaster scene with the required representation by federal agency personnel, and taking any other appropriate action in cooperation with the State Coordinating Office in the fulfillment of his responsibilities.

47. **Federal Emergency Management Agency (FEMA).** The federal agency responsible for the federal government's portion of the comprehensive emergency management program. It consists of a national office in Washington, D.C., and ten regional offices. The regional office for Utah (Region VIII) is located in Denver, Colorado. FEMA provides technical advice, funding and program management for state and local emergency management agencies.
48. **Financial assistance.** Any form of loan, grant, guaranty, insurance, payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect federal assistance, other than general or special revenue-sharing or formula grants made to states.
49. **Flood/flooding.** A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland and/or tidal water, and/or unusual and rapid accumulation of runoff from any source.
50. **Floodplain.** A plain along a river or coastal area, formed from soil deposited from floods. Also, the lowland and relatively flat areas adjoining inland and coastal waters including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year. Any land area susceptible to being inundated by water from any source.
51. **Function.** A possible component or area of activity in emergency operations (e.g., firefighting, emergency public information, and evacuation). It may combine several, or many, specific tasks or activities.
52. **Governor's authorized representative(s).** The person(s) named by the governor in the FEMA-State Assistance Agreement to execute on behalf of the state all necessary documents for disaster assistance and to evaluate and transmit local government, eligible private nonprofit facility, and state requests for assistance to the FEMA Regional Director following a major disaster or emergency declaration.
53. **Ground zero.** The point on the surface of land or water vertically below or above the center of a burst of a nuclear weapon.
54. **Hazard.** A dangerous event or circumstance that may not lead to an emergency or disaster.
55. **Hazard mitigation.** An action taken, beyond the usual objectives of emergency management, that will reduce suffering and dollar damage expected to be caused by a potential hazard.

56. **Hazardous materials (HAZMAT).** Any element, compound, or combination thereof, that is flammable, corrosive, detonable, toxic, radioactive, an oxidizer, an etiologic agent or highly reactive, and because of handling, storing, processing, packaging, or transporting may have detrimental effects upon operating and emergency personnel, the public, equipment, and/or the environment.
57. **Host.** A county that has been chosen as a “host” for the evacuated populations of risk counties.
58. **Incident command system (ICS).** The combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure with responsibility for management of assigned resources to effectively accomplish stated objectives at the scene of an incident.
59. **Individual assistance.** Assistance provided to individual disaster victims according to the needs of the individual and families. Individual assistance includes emergency actions such as search-and-rescue medical care, operation of emergency shelters, and feeding. In addition, it includes relief and rehabilitation actions, such as temporary housing, disaster loans, federal income tax assistance in claiming casualty losses, legal services, consumer aid, disaster unemployment benefits, crisis counseling, and individual and family grants.
60. **Initial alert.** Intermediate Civil Readiness Level. At this level, national offices will begin continuous manning at emergency operating centers and regions will begin communications watch.
61. **Joint damage assessment.** Conducting a damage assessment by a team of federal and state or local inspectors and/or engineers viewing the impact simultaneously and each writing his/her own separate report.
62. **Joint information center (JIC).** A centralized facility to coordinate briefings to the news media by representatives of key response organizations in a disaster or emergency.
63. **Local coordinating officer.** The person designated by the local elected officials to serve as on-scene representative for the local government and to work in concert with the State Coordinating Officer in administering state assistance to disaster victims.
64. **Local warning point.** A facility in a city, town, or community that receives warnings over the National Attack Warning and Alert System (NAWAS) and activates the public warning system in its area of responsibility.
65. **Lockdown (external).** During an external lockdown, all school exterior doors are locked. This takes place if the threat is outside of the school. If the situation allows, parents/guardians could be admitted into the school with proper identification.

If it is deemed safe for parents/guardians, etc., to enter the building, they will need to show a proper form of identification,

such as a driver's license, military I.D., VBCPS school I.D. or other valid photo identification.

66. **Lockdown (internal).** During an internal lockdown, all school interior doors are locked, students are confined to their classrooms, and no entry or exit of the school is allowed. This takes place if there is a threat or possible threat inside the school.

During an internal lockdown the main entrance doors will be locked and a sign will be posted on the front door indicating that the school is in an internal lockdown. If there is no admittance to the building parents, etc., will be referred to the VBCPS Emergency Hotline at 757-263-1000 for information regarding this incident.

67. **Major damage.** A structure that has received substantial damage but is technically and economically feasible to repair.

68. **Major disaster.** Any hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mud slide, snowstorm, drought, fire, explosion, or other catastrophe in any part of the United States or its territories that, in the determination of the President, causes damage of sufficient severity and magnitude to warrant major disaster assistance under Public Law 93-188, and above and beyond emergency services by the federal government, to supplement the efforts and available resources of states, local governments and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.

69. **Mitigation.** See "hazard mitigation."

70. **National Attack Warning and Alert System (NAWAS).** A landline (hardwire) network for transmitting and receiving emergency information to federal, state, and local agencies that have NAWAS drops (phone). It was designed specifically for warning in the event of national emergency; now it is used for transmitting and receiving other emergency information such as severe weather.

71. **National Facility Survey (NFS).** Program data used by population protection planners to identify possible fallout shelters and determine spaces available for fallout protection for citizens and relocates the population in the event of nuclear attack.


72. **National Incident Management System (NIMS).** This system provides a consistent, nationwide template to enable Federal, State, local, tribal governments, the private-sector and nongovernmental organizations to work together effectively and efficiently to prepare for, prevent, respond to, and recover from domestic incidents, regardless of cause, size, or complexity, including acts of catastrophic terrorism.

73. **One-hundred-year flood.** The flooding condition that has a one percent chance of occurring each year. The 100-year flood level is used as the base planning factor for floodplain management in the

National Flood Insurance Program.

74. **Population protection planning (FPP).** State and local government plans, systems, and functional capabilities required to improve the survivability of the population from the effects of natural disasters and manmade technological hazards, including national security threats.
75. **Pre-delegation of emergency authorities.** The process established to allow specific emergency-related legal authorities to be exercised by the elected or appointed leadership or their designated successors.
76. **Preparedness.** Those activities, programs, and systems that exist prior to an emergency that are used to support and enhance response to an emergency or disaster.
77. **Public assistance.** That part of the emergency or major disaster relief program in which the federal government supplements the efforts and available resources of the state and local governments to restore certain public facilities or services. Public assistance includes emergency assistance, debris removal, community disaster loans, and the permanent repair, restoration, or replacement of public and designated private nonprofit facilities damaged or destroyed by a major disaster.
78. **Public information officer (PIO).** District spokesperson who speaks for the district and other agencies and is responsible for coordinating the release of information regarding an emergency or disaster to the public and news media, and establishing a joint information center (JIC), if necessary.
79. **Rad.** A measuring unit of radiation. It is the amount of absorbed dose equivalent to 100 ergs/gm of tissue.
80. **Radiological defense (RADEF).** The organized effort, through warning, detection, and preventative and remedial measures, to minimize the effect of nuclear radiation on people and resources.
81. **Radiological emergency preparedness (REP).** A program to provide protection for the public from effects of a radiation release from a commercial nuclear power plant and other peacetime-related incidents.
82. **Radiological officer (RDO).** A person responsible for establishing and administering a RADEF system at the state and local levels.
83. **Radiological protection program (RPP).** A program of planning and organization designed to mitigate radiation exposure of the public, and provide emergency warning of any type of radiological emergency, including nuclear attack. It encompasses the RADEF program.
84. **Radiological survey.** The directed effort to determine the distribution and dose rates of radiation in the area.

85. **Recovery.** Those long-term activities and programs, beyond the initial crisis period of an emergency or disaster, designed to return all systems to normal status or to reconstitute these systems to a new state that is less vulnerable.
86. **Resource inventory.** An analysis of the resources a community can call upon in the event of an emergency.
87. **Response.** Activities designed to provide emergency assistance to victims of the event and reduce the likelihood of secondary damage. The local fire department, law enforcement department, rescue squad, public works personnel, emergency medical services, and other emergency support services are primary responders.
88. **Shelter-in-place.** Shelter-in-place means selecting small, interior rooms in the school, with no or few windows, and taking refuge there until it is safe to release students. This is a precaution aimed to keep students safe from hazardous materials that may have been released into the atmosphere. (This is not the same thing as going to a shelter in case of a storm.) This procedure is implemented if it is determined that evacuation or dismissal could possibly place students at risk.
89. **Shelter manager.** A person trained in management skills in order to effectively manage a shelter during emergency and disaster situations.
90. **Standard operating procedures.** A set of instructions having the force of a directive, covering those features of operations that lend themselves to a definite or standardized procedure without loss of effectiveness. Generally, a checklist or set of instructions on things to be done under specific conditions. Any information needed to accomplish a task (e.g., personnel rosters and resource inventories that are attached or cited in a readily available reference).
91. **Standard system officer (SSO).** A person on the local level who establishes and maintains a shelter system and provides training to shelter managers.
92. **State coordinating officer.** The person designated by the governor to serve as on-scene representative for the Division of Comprehensive Emergency Management (CEM) and to work in concert with the federal coordinating officer in administering state and federal assistance to disaster victims.
93. **State emergency operations plan (EOP).** The state-level plan for actions to be taken by government and citizens when disaster threatens or strikes. It consists of assignments of responsibilities to state agencies, coordinating instructions, staffing, essential facilities, and general operations common to all major emergencies.
94. **Succession.** The process that establishes a list of the order or line of those entitled to succeed one another under emergency conditions.

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95. **Training and education.** The program of FEMA designed to assist state and local governments in training and education of emergency preparedness officials by means of a cooperative agreement.
 96. **Volunteer.** A person who, of his/her own free will, assumes responsibility for the performance of a task in the program for which he/she receives no salary.

9. Indoor Air Quality

Revised July 2012

The average age of Utah educational facilities today is somewhere between 30 and 50 years. Some buildings date back to the first decade of this century and are from 80 to 95 years old. School boards, district administrators and school-level administrators must take appropriate action to ensure school and district facilities last as long as possible. Local education agency (LEA) facility maintenance personnel should be provided the resources they need to maintain district and charter school buildings in the best possible condition. Top priority must be given to life-safety issues that protect the occupants of the buildings, followed closely by repairs without which the facility or equipment could be severely damaged. The topics listed below are some of the most critical elements of building maintenance to ensure the safety of occupants and longevity of existing facilities.

The importance of educating and training LEA maintenance staff about indoor air quality cannot be overstated. [Indoor air quality](#) concerns the safety and welfare of building occupants. Children, teachers and administrators spend over a thousand hours per year in our educational facilities. We must ensure the air they breathe is safe, clean and conducive to a positive learning environment.

However it is organized, indoor air quality monitoring and fundamental improvements should be accomplished in an organized and documented response. It is also important to ensure appropriate resources are dedicated to make the needed repairs as necessary.

A specific indoor air quality program coordinator should be appointed for each LEA. This person should be someone who is responsible, organized and who knows the building and heating, ventilating and air conditioning (HVAC) systems well and can work well with the maintenance staff. The important element of a good indoor air quality maintenance program is to be "proactive" instead of reactive to air quality issues. This will not only improve the indoor air quality in educational facilities, but will also improve the LEA legal position and professional image because the district or charter school has demonstrated that it is actively trying to minimize or prevent the problems before they occur.

a. Air Filtration Improvement

The one, single task that is the undisputed foundation of any indoor air quality maintenance program is changing air filters. This is where immediate indoor air quality can be achieved, but unfortunately, this is one particular job that is most often overlooked or neglected.

Maintenance and/or custodial personnel should first identify where each filter is located in each building and then start and maintain an air filter log to document how long each filter has been in place. Today the bottom line is to cut cost, and understandably, the majority of building owners and maintenance managers still use whatever inexpensive air filter is available. Many times these "cheap" filters are only about seven percent efficient, and so 93 percent of the air contaminants that could have been removed, are just re-circulated throughout

the building. The most elementary, most cost-effective and the most worthwhile indoor air quality improvement that can be made in most any building is to use at least a 30 percent pleated air filter, or a filter with similar efficiency, and change the filters regularly.

LEA maintenance and/or custodial personnel can get free local help from their specific air filter professionals. A good contact for information is the [National Air Filtration Association](#) at (757) 313-7400. Many local air filtration representatives will be happy to go to schools, look at the different applications, and try to help districts and charter schools get appropriate filtration systems in place.

b. Outside Fresh Air Intake, HVAC Air Handlers, and Building Exhaust Systems

The building Heating Ventilation and Air Conditioning (HVAC) system has a direct relationship to building air quality. It must be clean and operating properly. Many times building owners will try to save energy costs by closing the outside fresh air dampers during cold weather. The building will then be in a negative air pressure status and vehicle exhaust, for example, may be pulled into the building from a loading/unloading area. Sometimes an HVAC unit is wet and moldy inside because of improper condensate removal or a defective rooftop exhaust fan goes unnoticed because a related temperature problem in the building cannot be felt.

Maintenance personnel need to check the outside air intake louvers, bird screens, pre-filters, and pre-heat coils for obstructions. In addition, the outside air damper blades, linkage and damper motors need to be checked for proper operation. Also, check for outside air contaminants: is the outside air intake louver near a potential pollution source? Check the building exhaust system: is the fan operating properly (motor, pulleys, bearings, blower wheel)? Are there any obstructions?

c. Pollution Source Management

Indoor air quality maintenance personnel need to recognize sources of indoor air pollution that are happening daily. Many times maintenance personnel who understand potential pollution sources can prevent, minimize, or eliminate the problem easier than it may seem and sometimes at no additional cost to the school district or charter school. Keep it simple and use common sense to find and correct problems early when they are easiest to control. Areas of potential pollution include:

High indoor humidity areas or areas with water damage as evidenced by:

- Stained ceiling tiles.
- Visible mold/mildew.
- Damp walls or carpet.
- Steam or high humidity.
- Visible condensation.
- Wet basements.



Inadequate exhaust areas such as:

- Chemical storage.
- Science or photo labs.
- Printing press or machinery.
- Welding or soldering areas.
- Arts-crafts and paint shops.
- Kitchens and loading docks.
- Smoking spaces.

Results of occupant activities such as:

- Food or garbage accumulation.
- Use of air fresheners.
- Use of insect sprays.
- Use of portable fuel heaters.

Unoccupied areas and general clean up:

- Mechanical equipment rooms
- Attics and storage rooms
- Ceiling plenums or raised floors
- Crawl spaces and basements
- Utility closets

Being proactive and documenting potential pollution sources can eliminate air pollution before it occurs.

d. Responding to Occupant Complaints

It is important to follow a step-by-step written procedure for responding to indoor air quality complaints. Far too often these complaints are side-stepped or ignored because the maintenance and/or custodial department does not have a specific department policy in place to handle them. Maintenance and/or custodial personnel are not expected to immediately solve all indoor air quality problems, but they are expected to respond, to document, and to follow through on each incident.

Delayed or ignored responses to an indoor air quality complaint can eventually lead to an escalation of problems and additional cost that could have been avoided if addressed early on.

To prevent these situations, a simple complaint/response log sheet should be developed. The complaint/response log should contain the following elements:

- Building, area, room
- Who made the complaint and when
- Complete description of the person's concern

The complaint/response log should contain the type of indoor air quality problem, such as:

- Comfort-temperature or humidity problem.
- Too stuffy, no ventilation.
- Sudden strange odor.

- Is it a new problem or a recurrence?
- Is there a timing pattern for the problem?

Surrounding areas should be checked to verify if the problem is coming from:

- Storage rooms.
- Adjacent utility closets.
- Occupant activities.
- Covered vents or thermostats.
- Portable fans or heaters.
- Overcrowding.
- Recent spills or water damage stains.
- New construction or renovations.
- New carpet, wall coverings, painting or new office furniture that could be off-gassing when newly installed.

Basic air measurements should be checked, including:

- Temperature.
- Relative humidity.
- The time of day the problem presents itself.

Check the basics of the HVAC system:

- Is there a control problem?
- What is the sequence of operation?

Check the air distribution system—start at the return; check the filters; check inside the air handler; make sure no dampers are closed; check fire dampers.

- Is there a defective exhaust fan in the area?

Check the outside fresh air intake location—are there any indications of outside pollutant sources being pulled into the building?


Keep a record of all indoor air quality related phone calls, dates, meetings, etc.

If there is a delay in the progress of compliance with indoor air quality, talk to the concerned person and try to keep him/her informed. Document conversations and dates related to indoor air quality.

Maintain an indoor air quality list of the order of events and the specific repairs that eventually took place.

It may require the school district or charter school to have to call in an outside industry professional to rectify certain problems. The work that the district or charter indoor air quality maintenance and/or custodial personnel have done will be valuable to the consultant and the outcome of the solution.

An excellent resource for school districts and charters is [Indoor Air Quality for Schools](#) as well as the [Indoor Air Quality Tools for Schools \(IAQ TfS\) Action Kit](#), [Building Air Quality Action Plan](#), and the [Indoor Air Quality Design Tools for Schools](#). Other resources can be found at [Environmental Protection Agency \(EPA\)](#) web site and the [National Institute of Occupational Safety and Health](#)



[\(NIOSH\)](#) web site. These web pages and resources may be helpful to LEAs as they develop action plans to deal with indoor air quality as well.

10. Hazardous Waste

A waste is any solid, liquid, or contained gaseous material that you no longer use and either recycle, throw away, or store until you have enough to treat or dispose of. Local education agencies (LEAs) may generate wastes that can cause serious problems if not handled and disposed of carefully and properly. Such wastes could:

- Cause injury or death; or
- Damage or pollute land, air or water.

These wastes are considered hazardous, and they are currently regulated by federal and state public health and environment safety laws.

a. Hazardous Waste Laws, Regulations and Rules

In 1976, the U.S. Congress passed the Resource Conservation and Recovery Act (RCRA) which directed the [Environmental Protection Agency \(EPA\)](#) and [National Institute of Occupational Safety and Health \(NIOSH\)](#) to develop and implement a program to protect human health and the environment from improper hazardous waste management practices. The program is designed to control the management of hazardous waste from its generation to its ultimate disposal.

EPA first focused on large companies, which generate the greatest portion of hazardous waste. Business establishments, school districts, and other agencies and institutions producing less than 2,200 pounds of hazardous waste in a calendar month (known as small quantity generators) were exempted from most of the hazardous waste management regulations published by [EPA](#) in May 1980.

In recent years, however, public attention has focused on the potential for environmental and health problems that may result from mismanaging even small quantities of hazardous waste. For example, small amounts of hazardous waste dumped on the land may seep into the earth and contaminate underground water that supplies drinking water wells.

In November 1984, the Hazardous and Solid Waste Amendments to RCRA were signed into law. With these amendments, Congress directed [EPA](#) to establish new requirements that would bring small quantity generators, who generate between 220 and 2,200 pounds of hazardous waste in a calendar month, into the hazardous waste regulatory system. [EPA](#) issued final regulations for these small generators of hazardous waste in March 1986. Most of the requirements became effective in September 1986.

b. The Hazardous Waste Regulatory System

There are two ways a waste may be brought into the hazardous waste regulator system: listing, and identification through characteristics.

(1) "Listed" Wastes

LEA waste is considered hazardous if it appears on any one of the four lists of hazardous wastes contained in the federal Resource Conservation and Recovery Act (RCRA) regulations. These wastes have been listed because



they either exhibit one of the characteristics described below or contain any number of toxic constituents that have been shown to be harmful to health and the environment. The regulations list over 400 hazardous wastes. Many of the listed hazardous wastes that school districts or charter schools are likely to generate are included below.

(2) "Characteristic" Wastes

Even if a waste does not appear on one of the [EPA](#) lists, it is considered hazardous if it has one or more of the following characteristics:

- It is easily combustible or flammable. This is called an ignitable waste. Examples are paint wastes, certain de-greasers, or other solvents.
- It dissolves metals, other materials, or burns the skin. This is called a corrosive waste. Examples are waste rust removers, waste acid, or alkaline cleaning fluids, and waste battery acid.
- It is unstable or undergoes rapid or violent chemical reaction with water or other materials; this is called a reactive waste. Examples are cyanide plating wastes, waste bleaches, and other waste oxidizers.

A waste sample is tested and shows Extraction Procedure (EP) toxicity. Wastes are EP toxic if an extract from the waste is tested and found to contain high concentrations of heavy metals (such as mercury, cadmium or lead) or specific pesticides that could be released into the ground water.

In recent years attention and understanding has increased related to proper disposal of medications. This is not just limited to prescription medications. Proper knowledge of contents of all items disposed of in LEAs should be known. All staff members should be educated in proper disposal procedures.

c. Material Safety Data Sheets

[Material safety data sheets, or MSDS](#) sheets are a detailed information bulletin prepared by the manufacturer or importer of a chemical that describes the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first-aid procedures, and control measures.

Chemical manufacturers and importers must develop an [MSDS](#) for each hazardous chemical they produce or import, and must provide the [MSDS](#) automatically at the time of the initial shipment of a hazardous chemical to a distributor or user. Distributors also must ensure that downstream employers are similarly provided an [MSDS](#).

Each [MSDS](#) must be written in English and include information regarding the specific chemical identity of the hazardous material(s) involved and the common names. In addition, information must be provided on the physical and chemical characteristics of the hazardous chemical; known acute and chronic health effects and related health information; exposure limits; whether the chemical is considered to be a carcinogen by the [U.S. Occupational Safety and Health Administration \(OSHA\)](#) and [UOSH-Utah Occupational Safety and Health](#); precautionary measures; emergency and first-aid procedures; and the identification (name, address, and telephone number) of the organization responsible for preparing the [MSDS](#) sheet. Copies of the [MSDS](#) for hazardous

chemicals in a given work site are to be readily accessible to employees in that area. All employees should be aware of the location MSDS sheets are stored at each site.

d. Labeling Chemicals

Chemical manufacturers and importers must convey the hazard information they learn from their evaluations to downstream employers by means of labels on containers and material safety data sheets ([MSDS](#)).

In the workplace, each container is required to be properly labeled, tagged, or marked with the identity of hazardous chemicals contained therein, and must show hazard warnings appropriate for employee protection. The hazard warning can be any type of message, words, pictures, or symbols that provide at least general information regarding the hazards of the chemical(s) in the container and the targeted organs affected, if applicable. Labels must be legible, in English and prominently displayed.

e. Categories of Hazardous Waste Generators

There are three categories of hazardous waste generators:

1. Generators of no more than 220 pounds or 25 gallons per month (also known as conditionally-exempt small quantity generators). Most LEAs fall into this category. The federal hazardous waste laws require you to:

- Identify all hazardous waste you generate.
- Send this waste to a hazardous waste facility, or a landfill or other facility approved by the state for industrial or municipal wastes. The names of licensed hazardous waste removal companies under state contract are available from the [Utah State Purchasing and General Services Office](#) at (801) 538-3026.
- Generators in this category must never accumulate more than 220 pounds of hazardous waste on your property. If you do, you become subject to all the requirements applicable to the 220-2,200 pounds per month generators in the next category.

2. Generators of 220 to 2,200 pounds or 25 to under 300 gallons of hazardous waste, and no more than 2.2 pounds of acutely hazardous waste in any month.

The federal hazardous waste laws require you to:

- Comply with the 1986 rules for managing hazardous waste, including accumulation, treatment, storage, and disposal requirements. This includes:
 - Obtaining a U.S. [EPA](#) identification number and completing "Notification of Hazardous Waste Activity" forms and "Uniform Hazardous Waste Manifest" forms if shipping hazardous wastes.
 - Complying with rules pertaining to managing hazardous waste on-site (storage times, quantities, handling requirements and obtaining proper permits, taking adequate precautions to prevent accidents, and being prepared to handle accidents appropriately).
 - Complying with rules for shipping hazardous waste off-site.
 - Complying with "good housekeeping" and a safe environment rules.

3. Generators of more than 2,200 pounds or 300 gallons or more than 2.2 pounds of acutely hazardous waste in any month. The federal hazardous waste laws require you to comply with all applicable hazardous waste management laws and rules of the Resource Conservation and Recovery Act as amended in November 1984 as well as final regulations effective September 1986.

To determine which category of hazardous waste generator your school district falls into—and what requirements you must meet—you must measure or "count" the hazardous wastes your school district or charter school generates in a calendar month. The total weight will determine your generator category. The table below summarizes the kinds of wastes you must count and wastes you do not count when you determine your generator status.

Counting Your Hazardous Waste:

Do count some;

Do not count others

You do count all quantities of "listed" or "characteristic" hazardous wastes that you:

- Accumulate on-site for any period of time prior to subsequent management.
- Package and transport off-site.
- Place directly in a regulated on-site treatment or disposal unit.
- Generate as still bottoms or sluggers and remove from product storage tanks.

You do not have to count wastes that:

- Are specifically exempted from counting. Examples of these exempted wastes are:
 - Spent lead-acid batteries that will be sent off-site for reclamation.
 - Used oil that has not been mixed with hazardous waste.
 - May be left in the bottom of containers that have been completely emptied through conventional means, for example, by pouring or pumping.
 - Are left as residue in the bottom of product storage tanks, if the residue is not removed from the product tank.
 - You reclaim continuously on-site without storing the waste prior to reclamation.
 - You manage the waste in an elementary neutralization unit, a totally enclosed treatment unit, or a wastewater treatment unit. An elementary neutralization unit is a regulated tank, container, or transport vehicle which is designated to contain and neutralize corrosive wastes.
 - Are discharged directly to a publicly-owned treatment works (POTW) without being stored or accumulated first. This discharge to a POTW must comply with the Clean Water Act. POTWs are public utilities, usually owned by the city or county, that treats industrial and domestic sewage for disposal.
 - You have already counted once during the calendar month, and treated on-site or reclaimed in some manner, and used again.

f. Typical Waste Materials in LEAs

LEAs typically generate hazardous wastes from applied technology shops, grounds pesticide and chemical treatment shops, maintenance paint shops, science laboratories and facility and vehicle cleaning and maintenance activities. These areas may generate the following types of hazardous wastes:

Acids/Bases

Acids, bases, or mixtures having a pH less than or equal to 2 or greater than or equal to 12.5, are considered corrosive (for a complete description of corrosive wastes, see [40 CFR 261.22, Characteristics of Corrosivity](#)). The following are some of the more commonly used corrosives found in LEAs:

- Acetic acid
- Ammonium hydroxide
- Chromic acid
- Hydroponics acid
- Hydrochloric acid
- Hydrofluoric acid
- Ni/cad batteries nitric acid
- Oleum
- Perchloric acid
- Phosphoric acid
- Potassium hydroxide
- Sodium hydroxide
- Sulfuric acid

Heavy Metals/Inorganics

Heavy metals and other inorganic waste materials exhibit the characteristics of EP (extraction procedure) toxicity and are considered hazardous if the extract from a representative sample of the waste has any of the specific constituent concentrations as shown in [40 CFR 261.24, Table 1](#). This may include dusts, solutions, wastewater treatment sludgers, paint wastes, waste inks, and other such materials which contain heavy metals/inorganics. The following are some of the more commonly used heavy metals/inorganics found in LEAs:

- Arsenic
- Barium
- Chromium lead
- Mercury
- Silver
- Ignitable wastes

Ignitable wastes include any liquids that have a flash point less than 140 degrees Fahrenheit, any non-liquids that are capable of causing a fire through friction, absorption of moisture, or spontaneous chemical change, or any ignitable compressed gas as described in [49 CFR 173.300](#) (for a complete description of ignitable wastes, see [40 CFR 261.21, Characteristics of Ignitability](#)). Examples are spent solvents, solvent still bottoms, ignitable paint wastes (paint removers, brush cleaners and stripping agents), epoxy resins and adhesives (epoxies, rubber cements and marine glues), and waste inks containing flammable solvents. The following are some of the more commonly used ignitable wastes found in LEAs:

Acetone
Benzene
Cyclohexanone
Diesel fuel
Ethyl acetate
Gasoline
Methanol oil-based paints with lead
Paint-related materials
Petroleum distillates
Roofing tar

Pesticides

The pesticides listed below are hazardous. Wastes marked with an asterisk (*) have been designated acutely hazardous. For a more complete listing, see [40 CFR 261.32](#) and [261.33](#) for specific listed pesticides, and other wastes, waste waters, sludgers, and by-products from pesticide formulators. The following are some of the more commonly used pesticides found in LEAs:

*Arsenic Pentoxide
*Arsenic Trioxide
Acetic Acid
Decon
DDT
*Endrin
*Nicotine
*Strychnine

Reactives

Reactive wastes include reactive materials or mixtures which are unstable, react violently with or form explosive mixtures with water, generate toxic gases or vapors when mixed with water (or when exposed to pH conditions between 2 and 12.5 in the case of cyanide or sulfide bearing wastes), or are capable of detonation or explosive reaction when heated or subjected to shock (for a complete description of reactive wastes, see [40 CFR 261.23](#), Characteristics of Reactivity). The following are some of the more commonly used reactives found in LEAs:

Acetyl chloride
Chromic acid
Cyanides
Hypochlorites organic peroxides
Perchlorates
Permanganates
Sulfides

Solvents

Solvents, spent solvents, solvent mixtures, or solvent still bottoms are often hazardous. This includes solvents used in degreasing and paint brush cleaning and distillation residues from reclamation. See also [40 CFR 261.31](#) for most listed hazardous waste solvents. The following are some of the more commonly used solvents found in LEAs:

Benzene
Carbon tetrachloride
Ethanol
Isobutanol
Kerosene
Methyl ethyl ketone naphtha
Nitrobenzene
Petroleum solvents (flash points less than 140 degrees F)
Toluene
White spirits

Lead-Acid Batteries

Used lead-acid batteries should be reported on the notification form only if they are not recycled. Used lead-acid batteries that are recycled do not need to be counted in determining the quantity of waste you generate per month, nor do they require a hazardous waste manifest when shipped off your premises. The following are some of the more commonly used lead-battery products found in LEAs:

Lead dross
Spent acids
Lead-acid batteries

g. Managing Hazardous Waste On-Site

The three most important things you should know about managing your hazardous wastes on-site are:

1. Comply with storage time, quantity, and handling requirements for containers and tanks.
2. Obtain a storage, treatment, or disposal permit if you store, treat, or dispose of your hazardous waste on-site in a manner requiring a permit.
3. Take adequate precautions to prevent accidents, and be prepared to handle them properly in the event that they do occur.

(1) Storing Hazardous Waste On-Site

You may store no more than 13,200 pounds of hazardous waste on your site for up to 180 days or for up to 270 days if the waste must be shipped to a treatment, storage, or disposal facility that is located over 200 miles away. If you exceed these time or quantity limits, you will be considered a storage facility and you must obtain a storage permit and meet all of the Resource Conservation and Recovery Act (RCRA) storage requirements. You are allowed to store your waste for as long as 180 or 270 days so that you will have time to accumulate enough hazardous waste to ship it off-site for treatment or disposal economically.

You can store hazardous waste in 55-gallon drums, tanks, or other containers suitable for the type of waste generated if you follow certain common sense rules that are meant to protect human health and the environment, and reduce the likelihood of damages or injuries caused by leaks or spills of hazardous wastes. If you store your hazardous waste in containers, you must:

- Clearly mark each container with the words: "**HAZARDOUS WASTE**" and with the date you began to collect waste in that container.
- Keep containers in good condition, handle them carefully, and replace any leaking ones.
- Do not store hazardous waste in a container if it may cause rupture, leaks, corrosion, or other failure.
- Keep containers closed except when you fill or empty them.
- Inspect the container for leaks or corrosion every week.
- Make sure that if you are storing ignitable or reactive wastes, containers are placed as far as possible from your facility property line to create a buffer zone to surrounding properties.
- NEVER store wastes in the same container that could react together to cause fires, leaks, or other releases.
- Make sure that the stored waste is taken off-site or treated within 180 or 270 days.

If you store your waste in tanks, you must follow similar commonsense rules:

- Do not store hazardous waste in a tank if it may cause rupture, leaks, corrosion, or otherwise cause the tank to fail.
- Keep the tank covered or provide at least two feet of space at the top of the tank in uncovered tanks.

If your tanks have equipment that allow the waste to flow into them continuously, provide waste feed cutoff or bypass systems to stop the flow in case of problems.

Inspect any monitoring or gauging systems on each operating day and inspect the tanks themselves for leaks or corrosion every week.

Use the [National Fire Protection Association's \(NFPA\)](#) buffer zone requirements for tanks containing ignitable or reactive wastes. These requirements specify distances considered as safe buffer zones for various liquids based on the characteristics of all combustible and flammable liquids.

(2) Preparing for and Preventing Accidents

Whenever you generate hazardous waste and store it on-site, you must take the precautions and steps necessary to prevent any sudden or accidental release to the environment. This means that you must carefully operate and maintain your facility to reduce the possibility of fire, explosion, or release of hazardous waste.

Your district or charter school facilities must have appropriate types of emergency communication and fire equipment for the kinds of waste handled. You must also attempt to make arrangements with local fire, police, or hospital officials as needed to ensure that they will be able to respond to any potential emergencies that may arise. Some of the steps you may need to take to prepare for emergencies at school district or charter schools sites may include:

- Installing and maintaining emergency equipment such as an alarm, a telephone or a two-way radio, fire extinguishers (using water, foam, inert gas, or dry chemicals as appropriate to your waste type).

- Provide enough room for emergency equipment and response teams to get into any area in your district in the event of an emergency.
- Communicating with local fire, police and hospital officials or state or local emergency response teams explaining the types of wastes you handle and asking for their cooperation and assistance in handling emergency situations.
- Emergency phone numbers and locations of emergency equipment must be posted near telephones. Employees must know proper waste handling and emergency procedures.
- You must appoint an employee to act as an emergency coordinator to ensure that emergency procedures are carried out in the event of an emergency.
- If you have a serious emergency and you have to call your local fire department or you have a spill that could reach surface waters, you must immediately call the [National Response Center](http://www.nrc.gov) (NRC) at (800) 424-8802, e-mail: HQS-DG-1st-nrcinfo@uscg.mil, and provide them the information they ask for. If you call them and didn't need to call, they will tell you so. But anyone who was supposed to call and does not is subject to a \$10,000 fine, a year in jail, or both. If you fail to report a release you may also be required to pay for the entire cost of repairing any damage.

(3) "Good Housekeeping" and a Safe Environment

Good hazardous waste management can be thought of as simply using "good housekeeping" practices such as using and reusing materials as much as possible; recycling or reclaiming waste; treating waste to reduce its hazards; or reducing the amount of waste you generate.

The most important "good housekeeping" things you should remember about managing your wastes properly are:

- To reduce the amount of your hazardous waste whenever you can:
 - Do not mix nonhazardous waste with hazardous waste.
 - Avoid mixing several different hazardous wastes. Doing so may make recycling very difficult, if not impossible, make disposal more expensive, or make previously hazardous waste more hazardous.
 - Avoid spills or leaks of hazardous products. Remember that the materials used to clean up spills or leaks also become hazardous.
 - Make sure the original containers of hazardous products are completely empty before you throw them away. Use ALL the product.
 - Avoid using more of a hazardous product than you need. For example, use no more degreasing solvent or pesticide than you need to do the job.
- To conduct your own self-inspection. The best way to prepare for a visit from an inspector is to conduct your own self-inspection. Make sure you can correctly answer the following questions:
 - Do you have documentation on the amounts and kinds of hazardous waste you generate and how you determined that they are hazardous?
 - Do you have a U.S. EPA Identification Number, if required?
 - Do you ship waste off-site? If so, by which hauler and to which designated hazardous waste management facility? Have you checked the hauler's credentials?

- Do you have copies of manifests used to ship your hazardous waste off-site? Are they filled out correctly? Have they been signed by the designated facility?
 - Is your hazardous waste stored in the proper containers?
 - Are the containers properly dated and marked?
 - Have you designated a school district or charter school emergency coordinator?
 - Have you posted emergency telephone numbers and the location of emergency equipment?
 - Are all your employees thoroughly familiar with proper waste handling and emergency procedures?
 - Do you understand when you may need to contact the [National Response Center](#)?
- To cooperate fully with local, state and federal inspectors.

h. When You Need Help

If you need help:

Contact your local fire department, the State Fire Marshal's office:

[Utah State Fire Marshal](#)
5272 South College Drive, Suite 302
Murray, Utah 84123-2611
(801) 284-6350
<http://publicsafety.utah.gov/firemarshal/>

State Division of Air Quality:

[Utah Department of Environmental Quality](#)
Division of Air Quality
150 North 1950 West
Salt Lake City, Utah 84114
(801) 536-4000
<http://www.deq.utah.gov/>

The Utah state hazardous waste management agency:

[Utah Department of Environmental Quality](#)
[Division of Solid and Hazardous Waste](#)
P.O. Box 144880
Salt Lake City, Utah 84114-4880
(801) 538-6170
<http://www.hazardouswaste.utah.gov/>

[U.S. EPA Denver Region office: EPA Region VIII](#)
[Waste Management Division \(8HWM-ON\)](#)

Mailing address:

1595 Wynkoop St
Denver, CO 80202-1129

Phone:

303-312-6312



800-227-8917 (Region 8 states only)

<http://www.epa.gov/region8/>

11. Legal Liability in Building Maintenance and Operations

All staff members who are involved, in any way, in the operations and maintenance of educational facilities need to be aware that accidents and other mishaps that occur in school buildings, facilities, or on school grounds may result in lawsuits against the school district or charter school. As part of these lawsuits employees may be named as parties to the lawsuits or, at a minimum, they may be involved as witnesses in the lawsuit process. In most of these actions plaintiff's attorney will try to prove that the school district or charter school and its employees were negligent, and through this negligence the client was injured. Throughout this manual you have been informed about issues or problems that affect the operation of schools which can be identified through a self-inspection. The concept behind a self-inspection is one of identifying potential problems and correcting them before they injure someone, create potentially unsafe conditions, or cause situations that lead to prolonged litigation.

It is important for those involved in the process of self-inspection and the maintenance of school property and buildings to understand how the law works in situations involving physical problems with educational facilities and grounds. Local education agencies (LEAs) have a basic responsibility to provide a safe environment for students, staff, and others who visit or otherwise utilize the facilities. If someone is injured while using the facility, and it is determined that the injury is related to or caused by a problem of which school district or charter school personnel were aware or should have been aware of but failed to correct, liability may be imputed to the school district or charter school. This means if staff members are aware of a problem like a trip-and-fall hazard—such as a piece of pipe sticking up on the playground, or broken glass under a swing set, or a pool of water on a slick floor—and do nothing to correct the problem, the school may be held liable if someone is injured. The courts have established a "knew or reasonably should have known" standard for determining liability. If school personnel knew about the problem, or reasonably should have known, and did nothing to correct the problem, then the school district or charter school may be successfully sued. LEAs will not be held liable for everything that could possibly occur, but they may be held liable for those things that were known and could have been corrected but were not.

Facilities' staffs have a special duty to find and address these problems before they become life/safety issues and/or legal liabilities for the school and the school district or charter school. Self-inspection tools provide a handy way of finding problems before they become liabilities. Many of the self-inspection documents in use today are designed to point out specific problems that have been identified as potential liabilities. Many of the issues or subjects addressed in the self-inspections have been the subject of lawsuits in the past. In addition, many of the issues addressed in the documents are areas or subjects addressed by various federal laws or rules. [Occupational Safety and Health Administration \(OSHA\)](#) requirements, hazardous waste management, and other safety guidelines and rules established by federal and state agencies are also addressed in self-inspection documents. When one of these rules is violated and someone is injured, the fact that the agency was in violation of the rules or standard will most likely be used in court to prove guilt.



The self-inspection process allows schools to find or anticipate problems before they become liability issues. If properly used, self-inspection documents provide a list of problems that can be prioritized and then corrective measures addressed in a logical order. By using the self-inspection process LEAs are able to show that they are interested in providing a safe environment for their patrons. Once the inspections are completed, however, the school district or charter school must act to address the problems. This must be done in a timely and proper manner. Performing self-inspections and then addressing the identified problems is one of the best ways for schools to avoid legal liability.

For more information, contact [State Risk Management](#) at (801) 538-9560.

12. Facility Graffiti Removal and Prevention

Graffiti on school facilities diminishes the educational climate and attracts even more graffiti and vandalism. Graffiti should be removed completely and as soon as possible when it occurs. Removing graffiti quickly and completely sends a message to the individuals who created the "art work" or "tag" on the buildings, signs, asphalt/concrete surfaces, or whatever object at the facility that this school will not tolerate such behavior and will take swift action to remove any signs of it. The converse is also true; if graffiti is not removed quickly and completely, it attracts additional graffiti—much like one or two broken windows in a building invites more windows to be broken and additional vandalism. Inaction sends the message, "We don't care about this facility."

School personnel should take photographs of all graffiti "tags" and share the photos with district security personnel as well as local police. This may help in locating the perpetrators or in documenting a pattern that could lead law enforcement personnel to those who committed the crime.

A combination of physical scrubbing with pressure and power washing using chemical solvents can usually remove most graffiti. Specialized graffiti-cleaning solvents and washers are available from commercial suppliers. Care must be taken to protect maintenance employees when using chemical and mechanical cleaning methods, including providing the required personal protection equipment. It is critical to follow the instructions provided by the manufacturer of the solvent and washer. Using chemicals that are organic or biodegradable is preferred.



13. Radon Gas in Facilities

Radon is a natural radioactive gas formed by the decay of uranium in the earth's soil. It is tasteless, odorless and invisible. Eventually it can work its way to the surface through cracks in the earth's surface and through porous soil. Radon gas is diluted into the outdoor atmosphere and poses little danger because of the high ratio of air to radon.

a. Health Risks of Radon

Radon seeps through gaps in the foundation or insulation and is trapped in the confined areas of a building. Long-term exposure to radon under these conditions has been associated with an increased risk of lung cancer. The [U.S. Environmental Protection Agency](#) (EPA) estimates that radon is responsible for up to 15,000 deaths annually.

b. Radon Detection

Because radon gas is odorless, tasteless and invisible, nonscientific equipment is needed for detection. There are two basic detectors for measurements: a charcoal device and an alpha-track detector.

A charcoal device can be placed in a section of a building for three to four days. It is then returned to the manufacturer for analysis. An alpha-track detector is placed in the building approximately from two weeks to three months (or longer), before being returned to a laboratory for examination. Long-term testing averages the exposure to radon gas levels over a period of time. This gives a more conclusive test result. There are other techniques requiring operation by trained personnel which can be used to measure radon levels. Call [State Risk Management](#) at (801) 538-9578 for assistance.

c. Reducing High Levels of Radon

Corrective actions can often be quick and inexpensive. In some cases, the following steps will help to lower dangerous levels of radon gas or prevent it from entering facilities:

- Ventilate the school buildings.
- Open windows or doors (natural ventilation) or use ventilation systems (forced ventilation)—for example, fans, air exchange ventilators, etc.—to increase air flow whenever possible.
- Make sure all crawl space vents are open and clear.
- Seal cracks in foundations, along basement walls, floors or moldings.
- Seal loose-fitting pipes as they penetrate foundations and walls.
- Vent sump pumps.
- Paint basement floors and walls with a sealing paint.
- Ventilate sub slabs, if possible.

Contact [State Risk Management](#), at (801) 538-9578, for more detailed information on radon and radon abatement procedures.



14. Asbestos Removal/Containment in Facilities

The Asbestos Hazard Emergency Response Act (AHERA), a provision of the Toxic Substances Control Act, became law in 1986. AHERA requires local education agencies to inspect their schools for asbestos-containing building material and prepare management plans to prevent or reduce asbestos hazards.

Public school districts and non-profit private schools (collectively called local education agencies (LEAs)) are subject to AHERA's requirements. This includes charter schools and schools affiliated with religious institutions.

The word "[asbestos](#)" is derived from the Greek language. The Greeks admired the "miracle mineral" because of its softness and flexibility and its ability to withstand heat. The Greeks used asbestos much like cotton, spinning and weaving it into cloth. Asbestos was not widely available anywhere in the world until the late 1800's, when major deposits were found in Canada. Thereafter, asbestos was used to make thermal insulation for boilers, pipes, and other high-temperature applications, and was also used as a fireproofing and reinforcement material. During World Wars I and II, the military used asbestos extensively in ships and other applications. Commercial usages of asbestos in buildings increased thereafter, but growing concerns about the health risks associated with asbestos exposure resulted in a voluntary reduction in the use of asbestos beginning in the 1970s.

a. Characteristics of Asbestos

Asbestos is comprised of a group of natural minerals. Unlike other minerals, however, the crystals of asbestos form long, thin fibers. Asbestos deposits are found throughout the world, but the primary sites of commercial asbestos production are Canada, Russia, and South Africa. Commercial mining of asbestos in the United States was halted in the 1980s.

Once extracted from the earth, asbestos-containing rock is crushed, and grated. This produces long, thread-like fibers of material. What appears to the naked eye as a single fiber is actually a bundle of hundreds or thousands of fibers, each of which can be divided even further into tiny fibers (fibrils), invisible without the aid of a microscope.

Asbestos materials are divided into two groups: serpentine and amphibole. All asbestos in the serpentine group is called Chrysotile. This is the most common type of asbestos found in buildings in the United States, accounting for approximately 95 percent of the asbestos found in our nation's buildings. It is commonly known as "white asbestos" because of its natural color.

The amphibole group contains five types of asbestos. Amosite, the second most common type of asbestos found in buildings in the United States, is often referred to as "brown asbestos" for the color of the natural mineral. Crocidolite, or "blue asbestos" has been used in high-temperature insulation products and on chemical resistant surfaces, such as laboratory tables for chemistry and



biology classes (occasionally, staff will drill holes in table tops for new fixtures without realizing that the material may contain crocidolite). The remaining three types of asbestos in the amphibole group are Anthophyllite, Tremolite, and Actinolite; these are rare and have little commercial value. They are occasionally found as contaminants or minor constituents in asbestos-containing materials.

b. Uses of Asbestos

Asbestos has been used in thousands of products, largely because it is plentiful, readily available, cheap, and strong, does not burn, conducts heat and electricity poorly, and is resistant to chemical corrosion. Products made with asbestos are often referred to as asbestos-containing materials (ACM).

Asbestos has proved particularly useful in the construction industry. Building materials that contain asbestos are referred to as asbestos-containing building materials (ACBM). Commercial usage of asbestos products in the construction industry was most common from about 1945 to 1980. Some of the most common uses of ACBM include:

- Fire proofing material—usually spray-applied to steel beams used in construction of multi-story buildings to prevent structural members from warping or collapsing in the event of fire.
- Insulation material—usually spray-applied, trowel-applied, or manually installed after being preformed to fit surfaces such as pipes for thermal insulation and condensation control.
- Acoustical or soundproofing material—trowel- or spray-applied. This asbestos may also be used for decoration. Asbestos was mixed with other materials and sprayed onto ceilings and walls to produce a soft, textured look (sometimes referred to as cottage cheese).
- Miscellaneous materials—asbestos has been added to asphalt, vinyl, cement and other materials to make products like roofing felts, exterior siding and roofing shingles, wallboard, pipes for water supply, combustion vents, and flues for waste gases and heat. Fibers in asbestos cement, asphalt, and vinyl materials are usually firmly bound into materials in good condition and typically will be released only if the material is damaged mechanically—for example, through drilling, cutting, grinding, or sanding. In addition, asbestos in roofing shingles and siding exposed to weathering may slowly deteriorate and has the potential to release fibers.

Examples of the more common ACBM found in buildings are flooring, vinyl base, mastic, roofing materials, gaskets in heating and air-conditioning equipment, ceiling panels and tiles, wallboard, joint compound, plaster, pipe and boiler insulation, duct-wrap insulation, duct joint tape, duct vibration dampening cloth, fireproofing on structural members, fire brick for boilers, fire doors, acoustical spray-on, cement pipes, and panels.

c. Friable vs. Non-Friable ACBM

Friable ACBM will release fibers into the air more readily than non-friable ACBM. Therefore, the [Asbestos Hazardous Emergency Response Act](#) (AHERA) differentiates between friable and non-friable ACBM. The regulations define friable ACBM as material that may be crumbled, pulverized, or reduced to powder by hand pressure when dry. Friable ACBM also includes previously non-friable material when it becomes damaged to the extent that when dry it

may be crumbled, pulverized, or reduced to powder by hand pressure. Undamaged non-friable ACBM should be treated as friable if any action performed on the material will make it friable.

d. Categories of Asbestos-Containing Building Materials

EPA identifies three categories of ACBM:

- **Surfacing Materials**—Interior ACBM that has been sprayed on, troweled on or otherwise applied to surfaces (structural members, walls, ceilings, etc.) for acoustical, decorative, fireproofing, or other purposes. This includes acoustical plaster, hard plasters (wall or ceiling), fireproofing insulation, spray-applied or blown-in thermal material, joint or patching compound (wall or ceiling), and textured paints or plasters.
- **Thermal System Insulation**—Insulation used to control heat transfer or prevent condensation on pipes and pipe fittings, boilers, breeching, tanks, ducts, and other parts of hot and cold water systems; heating, ventilation, and air conditioning (HVAC) systems; or other mechanical systems. These insulation materials include pipe lagging, pipe wrap, HVAC duct insulation, block insulation, cements and mud, and a variety of other products such as gaskets and ropes.
- **Miscellaneous Materials**—Other, mostly non-friable products and materials found on structural components, structural members or fixtures, such as floor tile, ceiling tile, construction mastic for floor and ceiling materials, sheet flooring, fire doors, asbestos cement pipe and board, wallboard, acoustical wall tile, and vibration damping cloth. "Miscellaneous materials" do not include thermal system insulation or surfacing materials.

e. Summary Key Points About Asbestos

These are some important terms used in the [AHERA](#). The designated AHERA person at each school district or charter school should be especially familiar with the following:

- **Asbestos-containing material (ACM)** — any material or product that contains more than one percent asbestos.
- **Asbestos-containing building material (ACBM)**—Surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior structural members or other parts of a building.
- **Friable ACBM**—Material that may be crumbled, pulverized, or reduced to powder by hand pressure when dry. Friable ACBM also includes previously non-friable material when it becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.
- **Non-friable ACBM**—Material that, when dry, may not be crumbled, pulverized, or reduced to powder by hand pressure.
- **Surfacing ACM**—Interior ACM that has been sprayed on, troweled on, or otherwise applied to surfaces (structural members, walls, ceilings, etc.) for acoustical, decorative, fireproofing, or other purposes.

- Thermal system ACM—Insulation used to control heat transfer or prevent condensation on pipes and pipe fittings, boilers, breeching, tanks, ducts, and other parts of hot and cold water systems; heating, ventilation, and air-conditioning (HVAC) systems; or other mechanical systems.
- Miscellaneous ACM—Other, mostly non-friable, products and materials (found on structural components, structural members or fixtures) such as floor tile, ceiling tile, construction mastic for floor and ceiling materials, sheet flooring, fire doors, asbestos cement pipe and board, wallboard, acoustical wall tile, and vibration damping cloth.

Undamaged non-friable ACBM should be treated as friable if any action performed would render these materials friable. When previously non-friable ACBM becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure, it should be treated as friable.

f. Asbestos Health Risks

The health effects associated with asbestos exposure have been studied for many years. Results of these studies show that inhalation (breathing in) of asbestos fibers leads to increased risk of developing several diseases. Exactly why some people develop these diseases remains a mystery, but it has been well demonstrated that most asbestos-related illnesses are dose-response related—that is, the greater the exposure to airborne asbestos fibers, the greater the risk of developing an illness.

(1) Relative Hazards of Asbestos Exposure

Almost daily, we are exposed to some prevailing level of asbestos fibers in buildings or experience some existing level in the outdoor air. Some fibers that are inhaled remain in the lungs. Brief "bursts" of exposure, when added to the background level, increase the potential to cause or trigger the development of an asbestos-related disease. These brief bursts of exposure occur in many ways. For example, when a carpenter drills a hole in an asbestos fire door without taking any precautions, an increased amount of asbestos may be released into the air. The more often these bursts of exposure occur, the greater the risk of breathing asbestos fibers. People most at-risk for this additional exposure are maintenance and construction workers who work on and disturb asbestos in buildings. This clearly demonstrates the need for an active asbestos policy and an ongoing operations and plan for buildings that contain ACBM.

It is important to recognize that the majority of people who have developed diseases because of asbestos exposures are former asbestos workers. These workers were frequently exposed to high levels of asbestos fibers each working day, with little or no protection. Today's asbestos maintenance workers and AHERA-trained asbestos abatement workers are trained to follow specific work practices and wear appropriate protection, including respirators, to minimize the risk of exposure. However, increased risk may occur when a worker who does not use a respirator or follow specific work practices disturbs any ACBM.

(2) The Respiratory System

The effects of asbestos exposure most often involve the lungs. Air breathed into the body passes through the mouth and nose, continuing into the

windpipe. The windpipe divides into smaller and smaller tubes that end up in the lungs as air sacs called alveoli. It is in these air sacs that respiration occurs. Oxygen is absorbed into tiny blood vessels (or capillaries), and waste gases—such as carbon dioxide—pass out of the blood and are exhaled.

The body has several mechanisms to "filter" the air it breathes. First, large particles are removed in the nose and mouth. Many smaller particles are caught on the mucus-coated walls of the airway tubes. These airways have "hairy" linings (ciliate cells) that constantly propel mucus upward. Particles caught in the mucus are swept up into the back of the mouth. From here they are swallowed or expelled (spit out). Smokers' problems increase as the effects of smoking temporarily paralyzes these hair-like cells, disabling one of the body's natural defenses against unwanted dust or fibers.

Despite natural bodily defenses, some dust particles inevitably reach the tiny air sacs in the lungs. When this occurs, the human immune system dispatches large cells called macrophages to engulf the particles and "digest" them. These cells deposit a coating on the particles and may begin forming scar tissue around them. This is just another natural defense mechanism the body uses against unwanted debris in the lungs.

g. Asbestos-Related Diseases

If the body's defenses fail to control or remove asbestos fibers that enter the lungs, the risk of developing an asbestos-related disease increases. Asbestos-related diseases include asbestosis, lung cancer, mesothelioma, and other cancers.

(1) Asbestosis

Asbestosis is a disease characterized by lung scarring. It reduces lung elasticity—the ability to inhale and exhale in response to muscular contractions of the diaphragm—and makes breathing very difficult. Asbestosis is most common among workers who have been exposed to large amounts of asbestos fibers over a long period of time. It is a serious disease and, in those persons exposed to high levels of asbestos, it can eventually lead to disability or death. All forms of asbestos are suspected to have the potential to cause asbestosis. Like all diseases associated with asbestos exposure, it may take many years for the disease to show up. The typical latency period for asbestosis is 15 to 30 years. Available data indicate that the frequency of occurrence of asbestosis rises and the disease worsens with increasing dust exposure. The [Occupational Safety and Health Administration](#) (OSHA) [Asbestos Standards](#) were developed to minimize the incidence of asbestosis among asbestos workers by reducing their exposure to asbestos.

(2) Lung Cancer

As with asbestosis, there appears to be a dose-response relationship between asbestos exposure and lung cancer. In addition, lung cancer arising from asbestos exposure also has a latency period before development—typically 30 years or longer. The risk of contracting lung cancer as a result of exposure to asbestos increases if the worker is a smoker. Smokers who are exposed to asbestos are over 50 times more likely to develop lung cancer than the normal, non-smoking population. As a result, a program to help workers stop smoking

and an asbestos operations and maintenance program will help reduce the risk of lung cancer among asbestos workers.

(3) Esthetical

Esthetical is a cancer that occurs in the chest cavity lining or in the abdominal (stomach) lining. This type of cancer spreads rapidly and is always fatal. Cases of esthetical have been found in people who have had a limited exposure to asbestos. The onset of this disease appears to be independent of smoking behavior but related to dose and to time from first known asbestos exposure. Mesothelioma tends to have a long latency period—usually 30 to 40 years.

(4) Other Diseases

Several other diseases seem to occur more frequently among people who have been exposed to asbestos. These include cancer of the esophagus, stomach, colon, and pancreas; pleural (fibrous) plaques; pleural thickening; and pleural effusion.

The risks of contracting any of these diseases make it extremely important that asbestos maintenance workers utilize proper work practices and respiratory protection.

While studies of asbestos workers and laboratory animals clearly reveal that asbestos is hazardous, the risks associated with low-level, non-occupational exposure, for example an occupant of a building who is not actually disturbing the asbestos, have not been directly demonstrated. Estimating low-level risks from exposure data is not a straightforward process, and the validity of current methodologies is questionable.

h. EPA Policy for Asbestos Control in Schools

The [EPA](#) bases its policy for asbestos control in schools on the following premises:

- Although asbestos is hazardous, the risk of asbestos-related disease depends upon ingestion, primarily upon exposure to airborne asbestos fibers through inhalation.
- Based upon available data, the average airborne asbestos levels in buildings seem to be very low. Accordingly, the health risk to most building occupants also appears to be very low.
- Removal is often not a building owner's best course of action to reduce asbestos exposure. In fact, an improper removal can create a dangerous situation where none previously existed.

[EPA](#) only requires asbestos removal to prevent significant public exposure to airborne asbestos fibers during building demolition or renovation activities. Asbestos that has been identified will pose little risk if it is well maintained under an operations and maintenance program. Improper operations and maintenance also can cause dangerous situations. Therefore, the EPA requires a proactive, in-place management program whenever ACBM is discovered and is not removed.

i. Local Education Agency (School District and Charter School) Responsibilities

The local education agency (LEA) must have an accredited inspector conduct inspections of each school building under its authority. [The State Department of Environmental Quality, Division of Air Quality](#)—(801) 536-4000; 150 North 1950 West, Salt Lake City, Utah 84116—can provide this service. A reinspection by an accredited inspector of all friable and non-friable known or assumed ACBM in each school building must be conducted at least once every three years that a [management plan](#) is in effect. An accredited management planner must review all three-year inspection reports.

For each inspection and re-inspection, an [accredited inspector](#) must provide a written assessment of all friable known or assumed ACBM in the school building.

Local education agencies (LEAs) must have an accredited management planner review the results of the inspection/re-inspection and the assessment and make written recommendations on appropriate response actions. The accredited management planner also prepares the asbestos management plan for each school under its authority.

LEAs must select the appropriate response actions consistent with the assessment of the ACBM and the recommendations of the management planner.

LEAs must implement an Operations and Maintenance (O&M) program whenever any friable ACBM is present or assumed to be present in a building under its authority. Here is a link to the EPA publication [How to Manage Asbestos in School Buildings](#).

Building inspectors, management planners, project designers, contractors/supervisors, and asbestos workers must complete [EPA](#) or state-approved courses and receive accreditation before they can perform any asbestos-related activities.

The [AHERA Rule](#) also specifies training requirements for LEA designated persons and custodial and maintenance workers, although these individuals are not required to complete any EPA-approved courses or receive accreditation.

LEAs must:

- Conduct periodic surveillance in each building under its authority at least once every six months after a management plan is in effect.
- Comply with the requirements to provide notification about asbestos activities to workers, students, parents, teachers and short-term workers.
- Maintain records in accordance with the AHERA regulations.
- Attach a warning label immediately adjacent to any friable and non-friable ACBM and assumed ACBM located in routine maintenance areas (such as boiler rooms) at each school building.

The [AHERA Designated Person](#) must provide a statement that the local education agency has met (or will meet) the responsibilities listed below. All references are to specific provisions to the [AHERA regulations](#) (under §

763.94). The AHERA Designated Person should be able to answer "yes" to each statement below:

- The activities of any persons who perform “inspections, re-inspections, and periodic surveillance, develop and update management plans, and develop and implement response actions, including operations and maintenance,” are carried out in accordance with [40 CFR Part 763, Subpart E](#).
- All custodial and maintenance employees are properly trained as required in 40 CFR Part 763, Subpart E and all other applicable federal and/or state regulations of the [Occupational Safety and Health Administration Asbestos Standard for Construction](#), the [EPA Worker Protection Rule](#), and applicable [state regulations](#).
- All workers and building occupants, or their legal guardians, are informed at least once each school year about inspections, response actions, post-response action activities, including periodic re-inspections and surveillance activities, that are planned or in progress.
- All short-term workers (telephone repair workers, utility workers, etc.) who may come in contact with asbestos in schools are provided information regarding the locations of ACBM and assumed ACBM.
- All warning labels are posted in accordance with [§ 763.95](#).
- All management plans are available for inspection, and notification of this availability has been provided in accordance with [§ 763.93\(g\)](#).
- The person designated by the school district according to [§ 763.84\(g\) \(1\)](#) has received adequate training as required by [§ 763.84\(g\) \(2\)](#).
- The LEA has and will consider whether any conflict of interest may arise from the interrelationship between the accredited person and whether this potential conflict might not influence the selection of certified personnel to perform activities under [40 CFR parts 763, Subpart E](#).

j. AHERA Inspections

Summary key points about AHERA Inspections:

- An AHERA inspection must be conducted by an accredited inspector. The inspector must identify all homogeneous areas of material that are suspected of containing asbestos. Homogeneous areas contain asbestos that is uniform (alike) in color and texture.
- All material suspected of being ACBM must be assumed to be ACBM unless the homogeneous area is sampled, and the analysis of the samples shows them to be non-asbestos. Adequate number of samples must be taken or the area will be considered to be ACBM regardless of the results of the analysis.
- Once the inspector has identified all ACBM in a building, he or she must perform a physical assessment of all non-friable and friable ACBM. This involves categorizing the material into one of seven Physical Assessment Classifications.
- The results of an AHERA inspection and the assessment must be documented in an inspection report. This report will be used by the management planner to make written recommendations on appropriate response actions.

k. The Management Plan

The management plan is a site-specific guidance document that the school district or charter school Designated Person must follow in managing the ACBM present in a school building. The management plan must be prepared by an accredited management planner and must be updated in a timely manner. The management plan must also include the documentation required under [§ 763.87](#) of the AHERA Rule for each laboratory performing a bulk sample analysis and the results of each analysis.

In the management plan, the management planner must recommend an appropriate response action (operations and maintenance, repair, encapsulation, enclosure, or removal) for all areas of friable ACBM (including ACBM which has the potential of becoming friable). All of the initial response actions implemented to control friable asbestos require a project design specifying how to conduct the abatement project.

Final air clearance of a functional space after a response action to remove, encapsulates, or encloses ACBM involves a visual inspection and the collection and analysis of air samples. Final air sampling must be done using the transmission electron microscopy (TEM) method, unless the project involves no more than 160 square feet or 260 linear feet, in which case phase contrast microscopy (PCM) may be used. The school district or charter school Designated Person is responsible for ensuring that the activities related to the management plan are implemented and that the management plan is updated in a timely manner.

l. Re-Inspections and Periodic Surveillance

As long as any ACBM remains in a school building, the building must be re-inspected at least once every three years. The re-inspection and assessments/reassessments must be conducted by an accredited inspector. The results of the inspection must be submitted to the Designated Person within 30 days to be included in the management plan.

The management planner must:

- Review the results of the re-inspection.
- Make a written response action and preventive measure recommendations for each area of friable surfacing and miscellaneous ACBM and each area of ACBM.
- Determine whether additional cleaning is necessary and, if so, specify how, when, and where to perform cleaning.
- Include an implementation schedule for the recommended activities and make an estimate regarding the resources needed to conduct the activities.
- Review the adequacy of the Operations & Maintenance Program.

At least once every six months after a management plan is in effect, the LEA must conduct periodic surveillance in each building that contains ACBM or is assumed to contain ACBM.

m. The Operations and Maintenance Program

An Operations and Maintenance (O&M) program must be implemented whenever any friable ACBM is present or assumed to be present in a school building or whenever any non-friable ACBM or assumed non-friable ACBM is about to become friable as a result of activities performed in the school building.

Unless the building has been cleaned using methods described at [§ 763.91\(c\)](#) of the AHERA Rule within the previous six months, all areas of a building where friable ACBM, friable suspected ACBM, assumed to be ACBM, or significantly damaged ACBM is present must be cleaned at least once after the completion of the AHERA inspection and before the initiation of any response action, other than O&M activities or repair.

Specialized work practices and procedures must be followed for any O&M activities disturbing friable ACBM. When a fiber release episode occurs, the work practices that must be followed depend on whether the episode is minor or major in nature. A minor fiber release episode consists of the falling or dislodging of three square or linear feet or less of friable ACBM. A major fiber release episode consists of the falling or dislodging of more than three square or linear feet of friable ACBM.

Once ACBM is identified or assumed to be present, the school district or charter school should start a notification and warning program to alert affected parties to a potential hazard in the building and to provide basic information on how to avoid the hazard. The school district or charter school is required to attach a warning label immediately adjacent to any friable and non-friable ACBM and suspected ACBM that is assumed to be ACBM that is located in routine maintenance areas. Where employees work in areas where fiber levels exceed permissible exposure limits or are required to wear pressure respirators, the school district or charter school must establish a medical surveillance and respiratory protection program.

A school district or charter school Designated Person can minimize accidental disturbances of ACBM during maintenance and renovation activities by establishing a permit system that calls for all work orders and requests to be processed through the designated person. The specific work practices that must be followed when routine maintenance activities are being conducted depend on the likelihood that the activities will disturb the ACBM and cause fibers to be released.

n. Handling and Disposing of Asbestos Waste

The amount and type of asbestos present both determine whether a school district or charter school must notify the [State Division of Air Quality](#) and what procedures that the school district or charter school must follow to control asbestos emissions. If the amount exceeds the regulatory threshold, then a written notification must be submitted ten working days prior to any asbestos stripping or removal operation or demolition operation. EPA regulations (along with state and local requirements) provide detailed instructions on the handling, transport, and disposal of asbestos materials. This includes emission control methods (such as wetting and leak proof wrapping), labels on the containers, record keeping and a trained representative on-site. Waste must be disposed of at a site meeting federal, state and local requirements.

For a site in your area, contact the [local public health department](#).

o. Training and Accreditation

AHERA requires that LEAs employ accredited persons to perform most of the activities associated with asbestos management. Building inspectors, management planners, project designers, contractors/supervisors, and asbestos workers must all complete EPA or state-approved courses that result in accreditation. The AHERA Rule also details specific training requirements for LEA Designated Persons and maintenance and custodial workers, although these individuals are not required to complete any EPA-approved courses or receive accreditation.

(1) Designated Person Training

AHERA requires that the AHERA Designated Person be adequately trained to carry out his or her responsibilities. Due to the differing needs of LEAs based on the size of the district, the size of the charter school, and the amount and condition of the ACBM, AHERA does not list a specific training course or specific number of hours of training for the Designated Person. Further, AHERA does not require the Designated Person to be accredited. Specifically, the regulations note the training must include the following topics:

- Health effects of asbestos
- Detection, identification and assessment of asbestos-containing building materials
- Options for controlling asbestos-containing building materials
- Asbestos management program
- Relevant [federal regulations](#) and [state administrative rules](#) concerning asbestos, including AHERA and its implementing regulations and the regulations of the [Occupational Safety and Health Administration](#), the [U.S. Department of Transportation](#), and the [U.S. Environmental Protection Agency](#)

The training completed by the school district or charter school Designated Person must be documented by course name, dates, and hours of training. This must be kept as a permanent part of the management plan.

(2) Training for Maintenance and Custodial Workers

The school district or charter school must ensure that all maintenance and custodial staff who work in a building that contains ACBM receive a minimum of two hours of awareness training, whether or not they are required to work with ACBM. New custodial and maintenance employees must be trained within 60 days after the commencement of employment. The awareness training must include, but is not limited to:

- Information regarding asbestos and its various uses and forms.
- Information on the health effects associated with asbestos exposure.
- Locations of ACBM identified throughout each school building in which they work.
- Information on how to recognize damaged, deteriorated, and delaminated ACBM.

- The name and telephone number of the school district or charter school Designated Person.
- Information on the availability and location of the management plan.

Staff that could disturb ACBM must receive an additional 14 hours of training. Once this additional training is completed, attendees will be adequately trained to conduct small scale, short-duration activities and/or minor fiber release episode cleanup and repair procedures.

The additional training must include, but is not limited to:

- Descriptions of the proper methods for handling ACBM;
- Information on the use of personal protection measures and respiratory protection;
- The provisions of the AHERA Rule relating to O&M activities ([40CFR763.91](#)) and training and periodic surveillance ([40CFR763.92](#)) as well as Appendices A-E of the Rule; EPA Regulations contained in [40 CFR Part 763](#), subpart G, and in 40 CFR Part 61, Subpart M, and OSHA regulations;
- Hands-on training in the use of respiratory protection and other personal protective measures and good work practices.

p. Accredited Personnel

Under AHERA, LEAs may employ the following individuals only if they have completed EPA- or State-approved training courses, passed the exams, and received accreditation.

- **Building Inspectors**—Building inspectors must complete a minimum of three days (24 hours) of training. Training course information covers technical information needed to identify and describe ACBM and information needed to write an inspection report.
- **Management Planners**—Management planners must complete a two-day (16 hours) course after they have completed and passed the exam for the building inspector training described above. This course is an extension of the building inspector training and teaches how to develop a schedule (or plan) for implementation of response actions for hazards or potential hazards identified in the inspection report, how to develop an O&M plan, and how to prepare and update a management plan.
- **Project Designers**—Project designers must complete a three-day (24 hours) abatement project designer training course. The project designer course teaches how to design response actions and abatement projects. It also covers basic concepts of architectural design, engineering controls and proper work practices as required by the regulation.
- **Contractors/Supervisors**—Contractors/supervisors must complete a minimum of five days (40 hours) of training. The course teaches proper work practices and procedures and covers contractor issues such as legal liability, contract specifications, insurance and bonding, and air monitoring. The course fulfills the OSHA "competent person" training requirement and the [National Emission Standards for Hazardous Air Pollutants](#) (NESHAP) "trained representative" requirement.

- **Asbestos Workers**—An asbestos worker must complete a minimum of four days (32 hours) of training. The course covers work practices and procedures, personal protective equipment, health effects of asbestos exposure, and other information critical to individuals who work in an abatement area with hazardous materials.

Update training is required for all levels of accredited personnel on a yearly basis.

q. Record Keeping

Each LEA must maintain a copy of its management plan in its administrative office, and the plan must be available to persons for inspection without cost or restriction. Each school must maintain a copy of the management plan for each facility in its administrative office, and the plan must be available to persons for inspection without cost or restriction.


The LEA must also maintain records of events that occur after submission of the management plan. These records include training information, periodic surveillance information, cleaning information, small-scale, short duration O&M activity information, information on O&M activities other than small-scale, short-duration, information on fiber release episodes, information on response actions and preventive measures, and air sampling information. These records should be included in the management plans in a timely manner. For each homogeneous area where all ACBM has been removed, the LEA must retain the records of events for three years after the next reinspection, or for an equivalent period. It is the responsibility of the LEA Designated Person to ensure that complete and up-to-date records are maintained and included in the management plans.

r. Related Regulations

Although AHERA and its implementing regulations, the [AHERA Rule](#), set out many of the responsibilities of the school district, there are several other federal regulations that the LEA should be aware of when implementing an asbestos management program. These regulations include the following:

- [National Emission Standards for Hazardous Air Pollutants](#) (NESHAP)
- Occupational Safety and Health Administration (OSHA) Construction Industry Standard ([29 CFR 1926.1101](#)) and General Industry Standard ([29 CFR 1910.1001](#))
- The EPA Worker Protection Rule ([40 CFR § 763.121](#))
- Department of Transportation (DOT) regulations governing the transport and disposal of asbestos-containing materials ([49 CFR Parts 171](#) and [172](#))

By following the requirements of these related regulations, the LEA can not only protect the people in its buildings from negative health effects, but also may protect itself from legal liability. These regulations should be considered to establish minimum standards; going beyond these requirements may help keep buildings as safe as possible. For further information about these related regulations, call the [Asbestos Ombudsman Clearinghouse](#) Hotline at (800) 368-5888 between 8:00 a.m. And 4:30 p.m., Eastern Time. Please contact [State Risk Management](#) at 538-9578 or the [State Division of Air Quality](#) at (801) 536-



4000 for more detailed information on asbestos removal and containment in schools.

15. The Americans with Disabilities Act (ADA)

As a government entity providing programs and services to the public, school programs and services must be accessible to persons with disabilities. A transition plan indicating which facilities need to be upgraded and the construction schedule for such work was developed by each school district in 1991. Along with developing the transition plans, local education agencies (LEAs) must work toward adherence to ADA requirements. Failure to work toward compliance over this time period may place the facility under scrutiny, lead to potential fines, and require that modifications be made in a more restricted schedule. In general, all new construction and altered facilities in public areas must be fully accessible to persons with disabilities. In addition, all publicly accessible paths of travel must be accessible to persons with disabilities.

Both the [International Building Code](#) (IBC) and the [American National Standards Institute—ANSI](#) (ANSI) have [accessibility standards](#) that School District Building Officials (SDBOs) and Charter School Board Building Officer (CSBBO) must comply with the most restrictive between these and ADA. Quoting the purpose section from the American National Standard:

The specifications in this standard make buildings and facilities accessible to and usable by people with such physical disabilities as the inability to walk, difficulty walking, reliance on walking aids, blindness and visual impairment, deafness and hearing impairment, incoordination, reaching and manipulation disabilities, lack of stamina, difficulty interpreting and reacting to sensory information, and extremes of physical size based generally upon adult dimensions. Accessibility and usability allow a person with a physical disability to independently get to, enter and use a building or facility.

This standard provides specifications for elements that are used in making functional spaces accessible. For example, it specifies technical requirements for making doors, routes, seating, and other elements accessible. These accessible elements are used to design accessible functional spaces such as classrooms, hotel rooms, lobbies, or offices.

School districts (and charter schools) must follow all local, state, and federal accessibility codes and guidelines. Under the [Americans with Disabilities Act](#), the most stringent (accessible) code applies. In cases of conflict, federal ADA accessibility standards prevail over conflicting local or state law, administrative rules or regulations. All new or altered facilities must be accessible to and useable by individuals with disabilities. Shown below are ADA accessibility requirements for existing facilities and new construction or alteration/remodel projects:

- ADA accessibility requirements
- Location in ADA statute
- Existing facilities
- New construction
- Alterations/remodels



[Title II Programs](#) must be readily accessible when viewed in their entirety—unless to do so would cause a fundamental alteration in the nature of the program, undue financial or administrative burden (these "legal defenses" for not doing so must be fully documented and have legal review). Facilities must be fully accessible under [Americans with Disabilities Act Accessibility Guidelines](#) (ADAAG) or [Uniform Federal Accessibility Standards](#) (UFAS)—if construction commenced after January 26, 1992. NOTE: ADAAG should be used wherever possible. The [Department of Justice](#) plans to roll UFAS into ADAAG in the near future. All new construction and renovation should adhere to the 2010 version of ADA, with which compliance became mandatory effective March 15, 2012.

Consultation help on issues relating to the Americans with Disabilities Act and [Section 504 of the Rehabilitation Act](#) may be obtained from the [Disability and Technical Assistance Center](#) (DBTAC) in Colorado—toll-free telephone number: 1-800-949-4232.

The Utah State Division of Risk Management can review new construction, addition, and remodel plans for ADA/Section 504 compliance. These agencies need to review any deviation from accessibility as defined above. Contact [State Risk Management](#) at (801) 538-9560 for more information.

16. Roof Inspection Management and Maintenance

A roof membrane is a consumable building element. Every day part of the useful life of the roof is being consumed by wind, snow, hail, rain, and ultraviolet rays from the sun, as well as foot traffic and various forms of abuse—even vandalism. While other elements of a building (for example, the paint finish) are more visible, and thus tend to be maintained on a regular basis, the roof membrane is usually hidden, not readily accessible, and often overlooked until it is leaking. At this point, extensive and costly damage may already have occurred.

The most important reason for establishing a roof inspection management and maintenance program is to protect the capital investment of new and existing roofs. A properly functioning roof maintenance program will not only add years to the life of a roof, but will detect minor problems before major damage to the roof is done and interior building damage occur.

a. Establishing a Roof Inspection Management and Maintenance Program

Step One—Establishing roof information files.

Each building should have a roof plan to show all roof areas: original building roof area, reroof areas, and building addition roof areas. Information contained in the file is essential to any roof inspection. The record files should contain the following sections:

Original Building Roof Design Sections:

- Project records, roof drawings, specifications, and applicable addendums
- Roof plan(s) showing location of all penetrations and rooftop equipment
- Approved submittals of material manufacturer's production data specifications and components used in the original construction of the roof (provide for each section of the building roof)

Installation Section:

- Field reports related to the roofing installation
- All correspondence between parties involved in the installation of the roof (general contractor, roofing subcontractor, architect/engineer, roofing consultant, etc.)

Warranty Section:

- Roof guarantees from the roof installer and/or manufacturer with telephone numbers and addresses for contacting in case of problems.

Inspection Maintenance Section: (These items are filed chronologically.)

- Periodic inspection reports, with photographs
- Reports of maintenance repairs, with photographs

- Records of any construction changes/modifications made to or on the roof surface decks
- Record of rooftop equipment services and/or replacements made on the roof, as well as the firm involved

Step Two—Implementing a roof inspection program with periodic inspections.

Generally, roof inspections should be made twice each year, once in the spring and once in the fall. Additional roof inspections should be made after major storms, when vandalism relating to the roof is suspected, or after any rooftop equipment service or installation.

Prior to any roof inspection, an inspection checklist should be developed. It is recommended that a standard checklist be developed for various roofing systems (build-up roof, single-ply membrane, singles, tiles, etc.). Standard checklists help to develop a continuity of reports and a consistency that allows statistical analysis when longitudinal data has been gathered. With the inspection checklist and the roof plan, roof problems can be marked on the roof plan itself and notes made on the checklist.

When problems are identified, the roof record file can be consulted and options for repairs can be pinpointed. Each inspection checklist should be returned to the master roofing record file to be reviewed prior to the next inspection. Over time, the roof record file becomes the primary resource to log problems and subsequent repairs.

Step Three—Maintenance scheduling and implementation.

Scheduling is usually done based on the following criteria:

- Immediately related to storm or vandalism damage repairs.
- Yearly for pitch pan filling repairs.
- Multiple-year (up to five years) for base flashing repairs.

Long-term costs of repairs need to be estimated prior to actual maintenance implementation. Cost comparisons of projected maintenance by roof type and roof age allow maintenance personnel to determine whether it is better to replace a roof or continue to repair it.

b. Methods of Program Development

An effective roof management program may be developed in several ways:

The first method is for the school district or charter school to develop a complete in-house program to perform all steps within the district's/charter's organization. In this method, the first two steps (1: Establishing roof information files and 2: Implementing a roof inspection program with periodic inspections) are performed by the same group of personnel. This method has the advantage of total in-house control. However, this in-house capability can also be a disadvantage in that a large technical staff may be required, or it may not be possible for some school districts or charters schools to hire such specialized personnel. In addition, this method may also require extensive specialized capital equipment investment.



The second method is for the school district or charter school to contract with outside professional roofing consultants. The first two steps (1: Establishing roof information files and 2: Implementing a roof inspection program with periodic inspections) are performed by a consulting firm. The third step (maintenance scheduling and implementation) is divided between the school district or charter school for cost analysis and decision-making, the consulting firm for scheduling, and a roofing contractor for implementation. The advantage of this method is that, through the use of outside personnel, large staff costs and investment in specialized equipment are reduced. The disadvantage is the lack of in-house personnel to provide direct owner involvement and supervision, as well as a strong dependence on outside consulting personnel.

The third method—which is used by many facility owners today—is a combination of owner staff and the use of outside consultants. The school district or charter school staff may participate with an outside consultant for the first two steps (1: Establishing roof information files and 2: Implementing a roof inspection program with periodic inspections). For the third step, the district or charter staff may only become involved in emergency and yearly maintenance implementation, with an outside roof contracting firm providing major repair/renovations. In this roofing systems maintenance strategy, the level of school district or charter school staff involvement is usually a direct function of the district's/charter's commitment to a structured and systematic roofing management program and the district's ability to fund it.

c. Roof Inspection Procedures

One of the key elements of any roof maintenance program is regular roof inspections. Another critical element is immediate attention to all identified problems. If the roof system is currently covered by a manufacturer's or contractor's warranty, the warrantor should be contacted if problems are detected in the roof system during an inspection. In the absence of a warranty, a professional roofing consultant should be contacted to obtain sound repair and maintenance advice if the problems involve other than small repairs.

The following roof inspections should be scheduled at least yearly:

- Semiannual inspections: spring and fall.
- Special inspections following extraordinary situations that may affect the roof (storms, vandalism, etc.). These inspections should be made as soon as possible after the event.

Each inspection should follow a prescribed routine that enables the inspector to examine the visible components of the roof system and identify areas requiring attention. It is also essential to consult and follow the manufacturer's and installation contractor's warranty instructions. Here is a sample [Owner Maintenance Inspection Checklist](#) with example roof system historical records and roof plan grids. If defects are found, investigate to the most reasonable extent possible to determine their severity and then obtain professional consultant advice to determine appropriate solutions.

The starting point of a roof inspection should be the interior of the building:

- Check interior walls and ceilings for signs of water and staining.
- A floor plan/roof plan should be developed from the interior inspection to indicate where there may be problems at the roof level.

- After inspection of the interior, check the exterior walls and overhangs for moisture, cracks, and signs of movement.

The roof should then be inspected by checking the following components:

- Cap flashings
- Edge metal
- Base flashings
- Penetrations
- Field membrane
- Other components as required

During inspection, the following maintenance should be routinely performed:

- Pick up and properly dispose of debris and organic plant material and repair any damage.
- Clean drains, gutters, down spouts, and scuppers; cut back tree limbs.
- Aggregate surfacing that has been displaced by wind, ice, snow, or water flow should be redistributed by using a push broom. Aggregate protects the roof membrane from ultraviolet degradation and must stay in place.
- Inspect duct work, which often leaks and causes a good roof and flashing assembly to fail.

The following procedures will have a significant impact on the service life of school district or charter school roof systems:

- Limit and control roof access; walk in areas that will minimize damage to the roof membrane—use designated roof walkways if they are provided.
- Take immediate action to repair leaks and damage.

The addition of penetrations or equipment to the roof system should only be done in collaboration with a professional roofing consultant and a structural engineer. How and where equipment is placed is critical to the roofing system, the structural system, and the state building and fire code.

Whether a local education agency (LEA) has one, three or one hundred schools, implementing a systematic roof management and maintenance program and employing a good roofing consultant are essential to maintaining good roofing systems. Using a roofing consultant to help select appropriate new roofing systems adequate to meet local weather conditions is also essential for dependable, long-lasting roofs.

d. Earthquakes and Roofing

Time and again, earthquakes in Utah and other parts of the United States have shown the vulnerability of parapets, chimneys, and other roof appendages to even moderate levels of ground shaking (Richter magnitude 5 and greater). Many deaths and injuries occur due to these roof elements being shaken from the roof.

In 1991, a statewide amendment to the building code was adopted, requiring the bracing of seismically hazardous roof appendages at the time of reroofing. The ordinance refers to parapet walls, cornices, spires, towers, tanks, statuary, and other appendages that have exhibited a high rate of failure during

earthquakes. This portion of the building code was modified during the 2012 Legislative session to read:

Section 3401.6, is added as follows: "3401.6 Parapet bracing, wall anchors, and other appendages. Until June 30, 2014, a building constructed before 1975 shall have parapet bracing, wall anchors, and appendages such as cornices, spires, towers, tanks, signs, statuary, etc. evaluated by a licensed engineer when the building is undergoing structural alterations, which may include structural sheathing replacement of 10% or greater, or other structural repairs. Reroofing or water membrane replacement may not be considered a structural alteration or repair for purposes of this section. Beginning July 1, 2014, a building constructed before 1975 shall have parapet bracing, wall anchors, and appendages such as cornices, spires, towers, tanks, signs, statuary, etc. evaluated by a licensed engineer when the building is undergoing a total reroofing. Parapet bracing, wall anchors, and appendages required by this section shall be evaluated in accordance with 75% of the seismic forces as specified in Section 1613. When allowed by the local building official, alternate methods of equivalent strength as referenced in an approved code under Utah Code, Subsection 15A-1-204(6)(a), will be considered when accompanied by engineer-sealed drawings, details, and calculations. When found to be deficient because of design or deteriorated condition, the engineer's recommendations to anchor, brace, reinforce, or remove the deficient feature shall be implemented. Exceptions:

- 1. Group R-3 and U occupancies.*
- 2. Unreinforced masonry parapets need not be braced according to the above stated provisions provided that the maximum height of an unreinforced masonry parapet above the level of the diaphragm tension anchors or above the parapet braces shall not exceed one and one-half times the thickness of the parapet wall. The parapet height may be a maximum of two and one-half times its thickness in other than Seismic Design Categories D, E, or F."*

The Utah Parapet Ordinance was adopted to provide an opportunity to protect the health, safety, and welfare of the public with regard to seismic risk. It is intended to correct a known seismic life-safety hazard at a time when it is most cost effective to perform the work. Most seismic activity in Utah follows the faults that occur along the North-South I-15 corridor from the Idaho border to the Nevada border.

The ordinance requires that roof elements be reviewed by a licensed engineer. Just because a building was built prior to 1975 does not mean that it will require bracing. The engineer will determine whether the ordinance applies to the specific building. This ordinance applies primarily to older commercial structures and schools. Building owners, architects, engineers, roofing contractors, school officials, and government officials are required to comply with it.

The first step is to determine whether or not the specific building needs bracing and/or wall anchorage. An engineer can determine this. School District Building Officials and Charter School Board Building Officers can approach the ordinance requirements in several ways:

- Hire a roofing contractor who will procure the necessary engineering services and perform the work.

- Hire a structural engineer to perform an analysis and provide the necessary bracing and anchorage details (if required). These details are then given to a selected roofing contractor to perform the work.
- Hire an architect or roofing consultant. This individual will procure the necessary engineering services and also provide drawings and specifications which could be bid by several roofing contractors to perform the work.

The Utah Parapet Ordinance only addresses the most common life-safety hazards posed by older buildings (i.e., parapets and appendages). Even after complying with the ordinance, your school buildings may still be vulnerable to severe damage or collapse in an earthquake due to inadequate floor anchorage, inadequate wall strength, weak mortar joints, inadequate foundation anchorage, etc.

You may want to consider additional seismic risk reduction measures. You can obtain additional information from the following sources:

- The Federal Emergency Management Agency ([FEMA](#)) produces a number of publications on the retrofitting of existing buildings. The publications are available at no charge, but some are quite technical in nature.
- The [Utah Division of Homeland Security](#) has publications and brochures on earthquake preparedness, including some typical details for seismic retrofit of existing unreinforced masonry buildings.
- A structural engineer can be hired through the [Structural Engineers Association of Utah](#) to perform a study on your building(s). This will help identify additional retrofit measures to further reduce the risk posed by earthquakes.

17. Underground Natural Gas Piping

The [Labor Commission of Utah](#) has established the following areas of consideration for new underground natural gas piping at school facilities:

- Establishment of a written operation and maintenance plan.
- Establishment of a written emergency plan.
- Maintenance of accurate maps of underground gas facilities.
- Establishment of procedures for maintenance work on pipeline leaks, cathodic protection, and other test records.
- Establishment of cathodic protection if steel piping is used underground.
- Establishment of training programs for employees involved in gas system operations and maintenance.

The Labor Commission of Utah has also established the following areas of consideration for annual maintenance of natural gas underground piping:

- Maintenance of testing and repair records.
- Annual leak survey of all underground piping.
- Annual testing of cathodic protection—testing six times annually for rectifier systems.
- Maintenance of training records.
- Annual inspection and servicing of valves.
- Annual inspection of above-ground piping for atmospheric corrosion, with restoration of protection if needed.

Federal and state laws require the above actions. For assistance, LEA personnel may call Utah Pipeline Safety at (801) 530-6673. Here is a link to the [Natural Gas Pipeline Safety law 54-13 UCA](#) and [Administrative Rule R746-409](#).



18. Relocatable (Portable Classroom) Building Issues

Relocatables, which are also referred to as portable classrooms and modular buildings, have three advantages in meeting peak enrollment needs:

- They can be constructed and located on a school campus in a relatively short period of time compared to permanent buildings.
- The initial cost of a relocatable classroom is less than the cost of a traditional classroom.
- When the enrollment peak is past or when the permanent, larger school is completed, the relocatables can be moved to another location where a need exists.

Most relocatable structures have been used to increase the capacity of an existing permanent building and thus reduce the need for a new building and a quick solution for space needed. This use represents an addition to an existing building. There is a limit, however, to the number of relocatable classrooms that can be added to a school campus. It is important to note that relocatables **must comply with all applicable building code requirements** as other construction, and although they may be considered as a temporary solution, they do not meet the exemptions of “temporary construction.” The fire code allows relocatables to be grouped together without separation from each other provided they are of the same construction type and the aggregate area of the relocatables does not exceed the allowable area permitted by the fire code.

The other limitation to the number of relocatables on a school campus is the limited support space the existing facility can provide (for example, multi-purpose space, auditorium space, instructional media space, food service facilities, restrooms, and other support areas). In addition, there is a limit on the volume of utilities that can be accommodated through an existing permanent building to portable buildings. The most often limited utility is electricity. Each permanent building has a finite amount of electrical service that can run through the building to relocatables. When the maximum electrical service is reached, either additional service must be brought to the site and added by the electrical utility company and the school district or charter school, or the number of relocatable buildings must not increase. Water and sewer service can also limit the number of relocatables located at a school campus.

The following is a checklist of items LEA facilities personnel should consider when locating portable structures on school campuses:

- Approve the site location with the local fire marshal and the State Fire Marshal.
- Relocatables may not be located closer than 20 feet from a permanent building.
- All locations for relocatable units, as well as the buildings themselves, comply with all of the applicable requirements found in the [Pre-Construction Checklist](#) and the [Active Construction and Project Closeout](#); must be reviewed by the:
 - State Fire Marshal's office.
 - Principal of the school.
 - District/charter director of plant operations and grounds.
 - District transportation director (if applicable).



- District/charter asbestos personnel keeping records on portables and school locations.
- School District Building Official (SDBO) or Charter School Board Building Officer (CSBBO).
- Others as needed.
- What a design professional's (architect/engineer) services will be required for the placement of the portable structure?

Choosing a location or site:

- Contact Blue Stakes and all underground utilities providers.
- Do not locate portables directly under high voltage utility lines (more than 600 volts).
- Locate and comply with all easements and right-of-ways.
- If the portable is to be located on a grass area:
 - Remove the sod.
 - Disconnect sprinkler heads and other water sources under the portable.
- Make sure the site has good drainage and that the portable(s) is not located over water collection basins.
- Be sure the site is located to be able to move the portable(s) in and out.
- Choose a site that is as level as possible.
- Sidewalks or walkways to the main building should be present.
- Consider snow removal:
 - Can the entry be positioned with a southern exposure so that snow melts quickly?
 - Can a cover be placed on the porch, ramp, and stairs to minimize snow accumulation in areas where children and staff are likely to slip and fall?
 - Is ice likely to form along the walkway to the portable(s) or at the entry of the portable(s)? What can be done to reduce or eliminate chunks of ice falling or ice forming on walkways and the entry?
 - What should the porch, ramp and stair surface be made of to reduce slips and falls during the winter?
 - Has ADA access been considered and need to be provided to be compliant? This may require the appropriate ramps, restrooms, and so forth.

Utilities and other services designed and installed by the properly licensed, certified, and credentialed individual:

- Where will the electrical power service come from?
- Is there adequate service to meet the needs of the new portable(s)?
- Will electrical power come to the portable(s) from underground or overhead?
- Are restrooms necessary in the portable(s), or are washing sinks and drinking fountains adequate?
- Is there sufficient water?
- Will the sewer drain line have the adequate drop per lineal foot to drain properly?
- Are the connections to water and sewer service proper for a relocatable structure?
- Is natural gas or liquid petroleum gas (LPG) needed in the portable(s)?
- Is the gas service adequate?

- Are the connections to gas service proper for a relocatable structure?

The portable(s) should be connected to the main building fire alarm system with the proper number and location of fire alarm horns and beacons. Be sure the proper numbers of fire alarm pull-stations are located within the portable(s) to be compliant with all applicable fire codes.

- Will the school intercom and bell signal system be extended to the new portable(s)? Be sure they are wired properly and installed by the properly licensed and credentialed individuals.
- Will there be telephone service to the new portable(s)? Be sure they are wired properly.

Be sure each portable meets [Americans with Disabilities Act \(ADA\)](#) and [Individuals with Disabilities Education Act \(IDEA\)](#) criteria for accessibility and an appropriate education in the least restrictive environment to allow students, school and district/charter personnel, parents, family members, and others appropriate access to each classroom.

Relocatable buildings traditionally consist of wood construction and this must meet all of the requirements of the building code for a type VN structure. Those with differing construction types must adhere to the individual requirements accordingly.

Foundation, blocking and anchoring:

All relocatable buildings must be located and installed in accordance with engineering standards for specific seismic and wind loads pertaining to each area where the building is located. Check the state-adopted building code ([58-56](#)), the [Utah Fire Prevention & Safety Act](#), and local building ordinances. Here is an additional [example relocatable checklist](#).

Relocatable buildings must not only meet the requirements of the International Building Codes, but must also meet the design criteria for snow load, wind velocity, and seismic motion for their specific location. Quality control and inspection by an approved authority is required of relocatable buildings during the manufacturing process. School District Building Officials (SDBOs) or Charter School Board Building Officers (CSBBOs) are required to ensure that relocatable buildings meet the appropriate design criteria. See Chapter 7, subsection (a) Building Code Inspection Guidelines, and subsection (4) Approved Fabricators of this Resource Manual for related inspection guidelines.

19. Outdoor Learning Play Centers and Playgrounds

Playgrounds are a fundamental part of the childhood and young adult learning experience. They should be safe, peaceful, nurturing play centers that are an extension of the school learning environment and accommodate the State Core Curriculum. This includes play equipment, hard surface games areas, and sand areas, as well as field games and outdoor classroom nature learning areas. These play areas should provide age-appropriate play value, activities, and events which foster imagination and creativity, with opportunities for social interaction, trying new activities, experimentation, problem solving, developing new skills, and testing capabilities that challenge the physical, intellectual, emotional, and social development of children and young adults. Because of the varied developmental levels of students the recommended is that separate play equipment and play areas for K-3 and 3-6 age groups be provided whenever possible.

School district and school personnel must provide safe, hazard-free playgrounds by providing qualified, licensed playground specialists as well as thoughtful planning, design, construction, maintenance, training, inspections, and records of same. Playgrounds should meet the basic major design criteria of good use relationships, compliant fall zones, adequate resilient fall surfacing, good drainage, proper surface grades, and avoiding hazards of head entrapment, protrusions, clothing entanglement, tripping, falls, limitations of blind spots and preferred open viewing of the overall playground whenever possible, etc. It should be noted that playgrounds, and specifically play equipment and those areas which will be used in the school curriculum, must be ADA accessible.

Recent changes in federal funding for the child nutrition may be tied directly to physical education programs the schools have. Because of this, LEAs should ensure their programs align with current child nutrition requirements to reduce the chance of loss of federal funds.

a. Play Equipment

All school playground equipment must be designed and installed in compliance with the [Handbook for Public Playground Safety](#), published by the [U.S. Consumer Product Safety Commission](#), [Utah State Risk Management](#) criteria, and [ADA accessibility standards](#). Playgrounds should be inspected initially when they are built or modified, and school personnel should then complete daily, weekly, and monthly visual safety inspections. It is recommended that district personnel provide an annual playground safety inspection. Here is a link to the [Public Playground Safety Checklist](#), published by the U.S. Consumer Product Safety Commission.

In addition, school personnel should ensure that students use appropriate personal protective equipment for each sport. Players must have appropriate helmets, face masks, shin guards, shoulder pads, etc. to protect themselves. If a decision is made to allow a sport, then the protective equipment normally available for that sport is required.



One aspect of outdoor learning centers and playgrounds often not considered is the requirement of not only having the actual equipment ADA compliant, but also making all equipment and fields accessible. The 2010 ADA guidelines can be referred to for specific details. However, the fact that a particular school district or charter school facility may not currently have disabled students and/or staff does not exempt compliance of ADA regulation.

b. Hard-Surface Games and Sand Play Areas

LEAs need to provide adequate hard surface areas, age-appropriate game standards, markings, and separate areas for hard-surface games to meet the needs of the population of the school site. Districts and charters should plan and provide for curriculum related activities the following typical activities for elementary grade students:

- basketball
- tetherball
- squares
- circles
- hopscotch
- skipping
- maps
- bounce walls
- alphabet
- numbers

Districts and charters should provide sand play areas for imaginative, creative, and skill development. In addition, they should consider providing features such as walking paths to promote healthy lifestyles.


c. Field Games

Adequate play fields should be provided to accommodate typical field games in order to develop social interaction, team building skills, individual skills, and testing capabilities that promote physical, intellectual, emotional, and social development.

LEAs must also control the use of skateboards, in-line skates, bicycles, sleighs, golfing, unauthorized access, and other forms of transportation/recreation on school grounds both during and after school hours. There has been property damage, as well as serious injuries and even deaths, as a result of inappropriate use of such equipment on school grounds. Policy, procedure for enforcement, and appropriate signage prohibiting these items should be developed for each school according to the types of problems being experienced.

d. Outdoor Classroom Areas

LEAs should also consider providing for and allowing development and enhancement of outdoor classroom nature learning areas by each individual school to extend their indoor learning center and accommodate the State Core Curriculum. Schools should allow activities and events which foster imagination and creativity, with opportunities for social interaction, developing community and leadership skills, trying new activities, experimentation, problem solving,



developing new learning skills, testing capabilities, and enhancing knowledge and education.

20. Fire Extinguishing Systems Inspection and Test

Nearly every school has some sort of kitchen for preparing and/or serving lunches. Most kitchens have a fume hood system to take cooking vapors safely out of the building. A hood system with fire protection over the equipment, behind the hood filters, and in the duct system is required over **all** commercial kitchen equipment which produces grease-laden vapors. This equipment includes cooking surfaces, deep fat fryers, griddles, broilers, range tops, grills, and tilting skillets.

Fire extinguishing systems must be interconnected to the fuel or power supply for cooking equipment. This interconnection must also be arranged to automatically shut off all cooking equipment and electrical receptacles which are located under the hood when the alarm is activated. The shut-off valves or switches must be of the type that requires manual operation to reset. The system must also be activated by heat on fusible links, or by a manual activation device installed at an approved location—usually on the way to or near the rear exit of the kitchen.

The following inspections are required for kitchen hood systems:

- Hood filters must be removed and cleaned sufficiently often to prevent the accumulation of grease, dust, and lint. A record containing the extent of cleaning, the time, and the date of cleaning must also be maintained in or near the kitchen area.
- The fusible links and automatic sprinkler heads must be replaced annually or according to the manufacturer's recommendations.
- The hood system must be inspected and appropriately maintained at least every six months or immediately after activation.
- The exhaust duct and fume hood should be inspected and cleaned as well.
- Any additional inspection as deemed necessary by the Utah State Fire Marshal's office.

All inspections and maintenance of kitchen hood systems must be conducted by an individual qualified and licensed to perform such inspections. For more information, contact the [State Fire Marshal's](#) office at (801) 284-6350.



21. Fire and Structural Wall Identification

It is recommended that **all existing** (in new construction this is required) fire walls (area separation walls), occupancy separation, and structural bearing walls be identified by stenciling every twenty feet on the wall in the plenum area above the ceiling the following:

For fire (area separation) walls:

"FIRE WALL. DO NOT PENETRATE."

For occupancy separation walls:

"OCCUPANCY WALL. ALL PENETRATIONS MUST BE PROPERLY SEALED."

For structural bearing walls:

"STRUCTURAL WALL. ALL PENETRATIONS MUST BE APPROVED BY STRUCTURAL ENGINEER."

Proper labeling of fire/area separation walls, occupancy separation walls, and structural load bearing walls will help future facility planners, architects, engineers, equipment installers, and repair personnel, as well as local education agency (LEA) facility maintenance personnel, to make proper decisions that will maintain the integrity of these special walls as repairs, additions, and modifications are made to school facilities.

It is recommended that a program be implemented in each LEA, along with the labeling of fire and structural walls, which includes educating staff at facilities, and maintenance and custodial personnel as to the importance of maintaining the integrity of these walls. This should also include providing information about the potential risks to the life/safety of occupants and the integrity of the facility when the integrity of fire and/or structural walls is affected.

In the event that there is a need to penetrate, modify, etc., walls and a complete set of plans are not readily available, obtaining the services of the necessary design professionals should be obtained.



22. Nonstructural Earthquake Hazards

This section is intended to help identify nonstructural hazards in schools and to show how those hazards can be reduced. Nonstructural hazards can occur in every part of a building and all of its contents, with the exception of the structure. In other words, nonstructural elements are everything but the columns, beams, floors, load-bearing walls, and foundations. Common nonstructural items include ceilings, lights, windows, office equipment, computers, files, window air conditioners, electrical equipment, furnishings, and anything stored on shelves or hung on walls. In an earthquake, nonstructural elements become unhooked, dislodged, thrown about, and tipped over; this can cause injury and loss of life, extensive damage, and interruption of school.

This [nonstructural earthquake hazards checklist](#) contains the nonstructural hazards known to be dangerous or problematic in earthquakes. School administrators, maintenance personnel, and engineers may carry the checklist with them as they survey a school site. After the survey is complete, any “NO” checked boxes represent hazards in need of correction. In parentheses after each hazard listed there is either a brief suggested solution or a numbered reference. The numbers refer to suggested solutions that illustrate how to restrain or anchor nonstructural elements and thereby reduce their hazardousness. The illustrations contain the specifications necessary to correct the particular nonstructural hazard.

For some items the fix is fairly complicated, and (A/E) indicates that an architect or engineer should be consulted. (LS) after an item draws attention to the fact that it is a life safety hazard and should be a high priority for correction. Items in italics are generally already taken care of if they were part of a recent state-approved construction project in public schools.

It should be noted that the common practice of stacking items on top of cabinets and equipment higher than allowed is not only a violation of the fire code but also lessens the effectiveness of nonstructural earthquake hazard avoidance measures.



23. Storage of Flammable and Combustible Liquids

Care must be used in the storing, handling, and use of flammable and combustible liquids, due to the great potential for loss of life or property by fire. There are very specific characteristics unique to various flammable and combustible liquids. There are also a variety of storage situations, and usage processes or methods, plus varying degrees of user experience and training that need to be considered. It becomes important to identify just how hazardous an individual flammable/combustible material may be.

The purpose of this section is to provide some basic information for local education agency (LEA) employees to assist in identifying and controlling the fire hazards presented by the majority of combustible and flammable liquids used and stored in and around schools.

It is important to identify how hazardous for fire a material may be. There are many factors which may increase the hazardous nature of a material, such as vapor pressure, boiling point, temperature, dispersion, available oxygen or oxidizing chemicals, sources of ignition, etc. Vehicles and containers being transported often have red and white diamond-shaped labels to indicate the degree to which the contents are flammable. Containers may also have the [NFPA](#) diamond-shaped label with blue, red, yellow, and white. The uppermost (red) section tells the degree of flammability from 1 (lowest) to 4 (highest). The other sections of the label indicate the degree of health hazard (blue), reactivity (yellow), or other notable features (white).

Chemicals are divided into various classes and subcategories to further help identify their degree of flammability:

- **FLAMMABLE** liquid is any liquid with a flash point below 100 F, a vapor pressure not exceeding 40 psi at 100 F, and a boiling point below 100 F.
 - Class I-A includes those liquids having flash points below 73 F and a boiling point below 100 F.
 - Class I-B includes those liquids having flash points below 73 F and a boiling point at or above 100 F.
 - Class I-C includes those liquids having flash points at or above 73 F and below 100 F.
- **COMBUSTIBLE** liquids are those with flash points at or above 100 F, but below 200 F. They are further classified into:
 - Class II—those liquids having flash points at or above 100 F but below 140 F.
 - Class III—those liquids having flash points at or above 140 F.
 - Class III-A—flash points at or above 140 F, but less than 200 F.
 - Class III-B—flash points at or above 200 F.

Note that the [U.S. Department of Transportation](#) defines a flammable liquid as any liquid that gives off flammable vapors at or below a temperature of 80 F. This disparity should not cause any difficulty in storage as long as one understands the difference in terminology which affects the labeling of the containers being received.



Flammable or combustible materials should be stored only in approved containers designed for the material. Small amounts of materials may be stored for use in approved containers throughout the building, but should be returned to a central storage point when no longer needed. Any quantity over ten gallons total should be stored within an approved metal storage cabinet specifically designed to store and vent flammable or combustible liquids. Even small quantities should be stored in an approved metal storage cabinet when one is available. The maximum quantity of materials in combination is 120 gallons. Class I liquids shall not be stored in a basement.

It is not appropriate to mix the storage of flammable materials with other laboratory chemicals, explosives, pesticides, herbicides, or reactives, including water reactives. Such materials should be stored separately in appropriate containers and cabinets. Cylinders containing compressed gases should also be isolated in secure locations, properly capped and chained, well away from flammable/combustible storage areas.

The [Uniform Fire Code, Table 7902.5-A](#) contains standards specifying the quantity of each class of flammable liquid that can be stored in various locations on the premises with one-hour fire resistive construction known as "control areas." This is summarized and simplified as follows:

For educational type occupancies (Group E), the storage quantities of flammable or combustible liquids allowed per control area shall not exceed 30 gallons of Class I-A, 60 gallons of Class I-B, 90 gallons of Class I-C, or 120 gallons in combination of Classes I-A, I-B and I-C. Combustible liquids shall not exceed 120 gallons of Class II, or 330 gallons of Class III-A. Nevertheless, the quantities in Group E Occupancies shall not exceed the amounts necessary for demonstration, treatment, laboratory work, maintenance purposes, and operation of equipment.

When tanks or containers are being filled, sufficient vapor space (known as "outage") should be maintained above the liquid so the liquid can safely expand when the temperature increases. The recommended outage space for gasoline, for example, is two percent of the container's capacity. Tanks and containers should NOT be stored near heat sources where temperature fluctuations are dramatic. This includes NOT storing containers in sunlight or near radiant energy sources. Adequate ventilation should be provided for any area where flammable or combustible materials are stored or used.

All containers should be properly listed and approved, as well as labeled with the name of the chemical contained, the correct hazard rating, and the quantity. Any smaller containers used for shift work or similar temporary usage must also be properly labeled and dated. Only the quantity of material expected to be consumed during a given shift should be dispensed into smaller containers from the original container. Care should be taken to assure that smaller containers are compatible, and also rugged enough to handle abuse such as accidental dropping onto the floor. Do not place materials into a larger container than that in which they were purchased, as there are restrictions on the size of container allowed for each type of flammable material.

When pouring flammable liquids from one container to another, care must be taken to assure that the two containers are of the same electrical state. That is, each container must be bonded to the other container and grounded to reduce the static electric charge on either container. Several fires have started while

pouring from one container to the other, which can create or transfer static electricity, creating a spark which ignites the fumes of the flammable liquid. An example of this is the requirement to remove a gasoline can from the bed of a pickup truck prior to filling it, as there is a definite possibility that the plastic can or the plastic bed liner has introduced a static charge.

Sources of ignition around flammable or combustible storage areas must be eliminated. Smoking and open flames should be prohibited, and the area must be well posted with signs accordingly. Grinders, saws, spark-producing equipment, spark-producing brush-type motors, welders, electric heaters, cigarettes, gas appliances such as stoves and ovens, hot water heaters, open flames, candles, matches, etc., are examples of ignition sources that should be avoided around storage areas.

Portable fire extinguishers should be mounted in easily visible and accessible locations within close proximity (between 10 and 50 feet). Approved metal waste receptacles with self-closing lids should be used to dispose of cleaning rags or other waste materials, such as cardboard which has been impregnated with flammable or combustible materials. It should be noted that the "combustible" materials having higher flash points are often thought to be less dangerous than "flammable" liquids. This is not true. It is the combustible liquids that have the higher oxidation potential, which creates the possibility of spontaneous combustion. For this reason it is important to remove all cleaning rags and impregnated materials from the building each evening.

For special operations or activities, or for large quantity storage, tank storage, or rack storage, please refer to the [Uniform Fire Code](#) and the appropriate [National Fire Protection Association codes and standards](#). **The information presented here is only an overview of general flammable and combustible liquid storage guidelines for educational occupancies, and should not be taken as complete in lieu of existing laws, codes, or administrative standards. The material is taken from reputable sources, and no warranty is expressed or implied by the author or by the [Utah Division of Risk Management](#) that compliance with any of the above will be adequate or sufficient to avert any degree of fire, disaster, claim, or incident. For more information contact the [State Fire Marshal's](#) office at (801) 284-6351 or the [State Risk Manager's Office](#) at (801) 538-9597.**