

## **REMODELING, SPECIAL CONSIDERATIONS**

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**Continuity:** When a space is remodeled, the new construction work shall appropriately incorporate the construction type, architectural features/details, finishes/treatments, color schemes, fixtures, hardware, etc. that have been used in adjacent areas in order to maintain continuity.

**Code Compliance:** All structural and architectural aspects of a space that is to be remodeled, including furnishings, shall be evaluated for compliance with current codes and standards and shall be upgraded as required to achieve compliance. Special consideration shall be given to restrooms, fire separations and exits, since bringing them into compliance often has a significant impact on a project. The elements of the space that are being altered must generally comply with the requirements for new construction, but in no case may the level of life safety in an existing building be reduced by any remodeling project.

All existing systems that serve a space that is to be remodeled shall also be evaluated. The systems shall also be upgraded as required to achieve code compliance (e.g. ventilation systems, plumbing systems, electrical systems, fire protection systems, communication/data systems, fire alarm systems). Specific examples include providing adequate ventilation air quantities as required by the current revision of ASHRAE Standard 62, providing backflow prevention and proper venting of plumbing systems as required by the current International Plumbing Code, installing appropriate acid waste piping systems as required by the International Plumbing Code and these *Standards* and installing GFI's in electrical circuits as required by the current edition of the NEC.

**Critical Safety & Accessibility Features:** When evaluating the scope of work to be undertaken in the renovation of an existing building, the critical safety and accessibility features that serve the project area shall be addressed.

This will include as a minimum, providing adequate exit distribution and exit enclosures of at least the minimum required fire resistance rating specified by the applicable Life Safety Code. This provision will not be mandatory in projects that consist of only work that is:

1. Cosmetic in nature, such as painting, new carpeting, wall repairs, etc. Cosmetic work does not include the removal or relocation of any walls, the removal or cutting of any structural beam or load bearing support, or the rearrangement of parts of a structure affecting the egress requirements. Or
2. Replacement or upgrade of components of a mechanical, electrical or plumbing system. Examples of replacement or upgrade activities would include the installation of an emergency generator, replacement of an air handler, or the installation of a new switchgear component.

The designation of areas of rescue assistance within existing stairways will require that the entire stairway be properly enclosed with walls and doors of the required fire resistance rating, be equipped with the required fire door hardware, and have provisions for proper emergency lighting of the stairway. This is necessary to avoid the creation of an illusion of safety for a person that may need to use the area of rescue assistance. The placement of areas of rescue assistance outside of the exit stairways, in accordance with the provisions of the Nebraska Accessibility Guidelines, will not be affected by the special requirements of this standard. When technically feasible, areas of rescue assistance shall be provided as part of the remodeling project. This will include an approved means of two-way communication. See *Technical Section 27 00 00 – Communications*.

The utilization of these criteria for the renovation of existing buildings will help to ensure that these critical life safety features are not ignored. The use of these requirements should also reduce the incremental approach to the upgrade of critical safety features (such as exit

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distributions and enclosures) that cannot adequately achieve the minimum required level of life safety through segmental changes.

***Infrastructure:*** The “infrastructure” that serves a space, including that which is located outside of the space, shall be evaluated during a major remodeling and be upgraded as appropriate. During major remodeling, consideration shall be given to upgrading all systems associated with the remodeled space. This includes roofs, exterior walls, windows, HVAC systems, plumbing systems, specialty piping systems, fire protection systems, electrical systems, communication/data systems, security systems and alarm systems. In less extensive renovation projects, all elements that are altered shall be compliant with the applicable code requirements.

***Minimum Requirements for Major Remodeling Projects:*** Adequate exit distribution and proper fire-rated separation of exits are essential features for life safety in buildings, and as such, they must be made code-compliant in all major remodeling projects. The roof(s), exterior wall(s) and windows shall also be upgraded during major remodeling as required to protect the remodeled space from weather-related damage. All dedicated equipment, such as air handling units, shall be replaced. Also, the HVAC branch piping and all associated valves serving a remodeled space shall be removed and replaced back to the associated mains. Electrical wiring, switching and associated electrical devices shall be removed and replaced back to the associated panel. If an electrical panel is incorporated within the remodeled space, it shall be replaced with a new panel. Thermostats, control valves and actuators shall also be replaced.

***Asbestos Abatement:*** The need for asbestos abatement shall be evaluated early in a project and appropriate steps taken for its removal. NU EHS shall be consulted during the planning phase of any project before asbestos abatement work is initiated. ACM's that will not be disturbed during the course of a project need not be removed unless they are “friable”, in which case the friable portions shall be abated or repaired. Of course, any removed insulation must be replaced with new insulation.

***Lead Abatement:*** The need for lead abatement shall be evaluated early in a project and appropriate steps taken for proper handling. NU EHS shall be consulted prior to release of lead into the environment.

***Utilities:*** Utility/HVAC system requirements as compared to the availability and capacity of existing systems shall also be evaluated early in a project. A survey of existing utility/HVAC systems, the manner in which they are controlled and their spare capacities shall be conducted, rather than making assumptions.

***Penetrations:*** When floors, walls, etc. are penetrated, care must be taken not to compromise the integrity of the building structure. All penetrations of fire rated floors, walls, etc. shall be appropriately “fire-stopped” after construction is complete. This includes all penetrations made by new installations as well as any such existing penetrations that are exposed during the renovation work.

***Floors:*** New flooring systems shall never be installed over old ones. Old floor finish materials shall always be removed first, regardless of their condition.

***Access:*** Furniture and equipment shall be located and configured so as to allow adequate access to all equipment/devices that require operation and/or periodic maintenance such as perimeter heating units, thermostats, electrical outlets and voice/data jacks. This continues to be a growing problem in campus buildings as modular furniture systems grow in popularity.

***Future Considerations:*** When sizing and laying out utility/HVAC systems that serve a remodeled area, consideration shall be given to the potential future needs of the area. These systems shall be sized and configured so as to maximize flexibility to facilitate future changes.

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***Abandoned Equipment:*** All abandoned materials, equipment, piping, conduit, wiring, etc. that are located within or that pass through a remodeled space shall be removed. This includes equipment and components that are remotely located (e.g. in a mechanical equipment room).

***Historic Preservation:*** When a historic building/structure is remodeled / rehabilitated, state and federal statutes require that historic spaces, features, finishes and materials must be retained and preserved. If replacement of features, materials and finishes, due to deterioration, is necessary, replacement materials will match the existing materials, profiles and finishes to the highest possible degree. Modification of the historic space configuration of a building is considered an adverse effect and must be mitigated on a case by case basis through Facilities Planning and Construction.

***Communications:*** Special consideration shall be given to remodeled areas that may affect communication equipment rooms (CERs). Any HVAC, electrical, security and alarm systems that are served from a CER must remain in service during the remodeling phase.