multi-line
Vermont School Boards Insurance Trust

Furniture Handling Considerations

Introduction 1

Preparing for the Back-to-School Setup 1

Avoid Using Staff Furniture/Residential Furniture and Opt for Commercial Grade Furniture in Schools 3

- Risks Associated with Staff and Residential Furniture 3
- Benefits of Commercial Grade Furniture 3
- Recommendation on use of Commercial Grade Furniture 4

Reporting and Addressing Concerns 4

Training and Education 4

- Training Topics 5
- General Outline of OSHA's Material Handling and Storage Regulations 5

Resources and References 6

- Commercial Furniture Suppliers 6
- Training Videos 6
- VSBIT Safety Grant 6

Appendix A - List of Different Types of Dollies and Furniture Moving Equipment 7

Appendix B - Pre-Setup Checklist for Furniture Handling 10

Introduction

As Vermont schools prepare for the new academic year, it's crucial to have controls in place to avoid injuries. One area of concern is the proper handling of furniture during the back-to-school setup. This resource aims to provide comprehensive guidelines focused on the effective use of dollies and other furniture moving equipment to prevent injuries and property damage. Schools should be aware of staff/faculty bringing in furniture or materials and have established controls.

Preparing for the Back-to-School Setup

1. Plan and Organize: Before starting the furniture moving process, create a clear plan. Identify the layout of the rooms, the placement of furniture, and the pathways for moving. Assign specific roles and responsibilities to team members to ensure a coordinated effort. Include steps like inspecting equipment for wear and tear, identifying potential obstacles, and planning the layout. See Appendix A for a checklist that schools can follow before the setup process begins.

2. Wear Appropriate Attire: Encourage staff members to wear comfortable clothing and closed-toe shoes with a good grip. Avoid loose clothing and accessories that might get caught on furniture or equipment.
3. Assess Furniture Weight and Size: Determine the weight and size of each piece of furniture before attempting to move it. Heavier items should be moved with the assistance of equipment like dollies, while smaller items may be manageable for manual lifting.
4. Utilize Proper Lifting Techniques: For items that can be lifted manually, emphasize the importance of using proper lifting techniques:
    a. Bend at the knees, not at the waist.
    b. Keep the back straight and use the legs to lift.
    c. Hold the object close to the body.
    d. Avoid twisting while lifting or carrying.
5. Select the Right Equipment: Refer to Appendix A for a list of furniture/material handling equipment:
    a. Choose the appropriate dolly type based on the furniture's dimensions and weight.
    b. Ensure the dolly's weight capacity exceeds the weight of the furniture.
    c. Secure the furniture to the dolly using straps or restraints to prevent shifting during movement.
6. Clear Pathways: Clear the pathways of obstacles, debris, and tripping hazards. Ensure there are no cords, rugs, or other items that might impede the movement of furniture and equipment.
7. Communicate and Coordinate: Effective communication among team members is crucial. Use simple and clear signals to indicate movements, stops, and changes in direction. Coordinate movements to prevent collisions and ensure a smooth process.
8. Teamwork: For larger furniture items, involve multiple team members to distribute the weight evenly and maintain control. Assign specific roles, such as guiding, pushing, and stabilizing the furniture.
9. Mind Doorways and Corners: Be cautious when navigating through doorways and around corners. Slow down and ensure that there is sufficient space for the furniture and equipment to pass through without causing damage or blocking the passage.
10. Use Ramps Safely: When using ramps to move furniture between levels, ensure the ramp is properly secured and stable. Keep the weight capacity of the ramp in mind and avoid sudden movements or excessive speeds.
11. Elevate and Secure Electronics: If moving electronics, such as projectors or computers, be sure to secure cables, detachable components, and fragile items. Elevate these items slightly off the floor to protect them from potential water damage or accidents.
12. Monitor and Adjust: Constantly assess the situation and adjust as needed. If a certain route becomes congested or obstacles arise, adapt the plan to ensure the safety of everyone involved.
13. Break Down Large Items: If feasible, disassemble larger furniture items into smaller, more manageable parts before moving. This reduces the overall weight and makes transportation easier.

14. Stay Hydrated and Take Breaks: Moving furniture can be physically demanding. Encourage staff to stay hydrated and take short breaks as needed to prevent fatigue and maintain alertness.
15. Post-Setup Inspection: Once the furniture is in place, inspect it for stability and safety. Ensure that items are securely positioned, and any potential hazards are addressed before allowing students and staff into the area.

Avoid Using Staff Furniture/Residential Furniture and Opt for Commercial Grade Furniture in Schools

Selecting the right furniture for school facilities is pivotal in creating an optimal learning environment. The practice of using staff or residential furniture might appear cost-effective initially, but it brings forth potential risks and liabilities. This recommendation underscores the significance of opting for commercial-grade furniture and avoiding the utilization of residential grade or personal furniture.

Risks Associated with Staff and Residential Furniture

1. Durability Deficiency: Personal furniture might not be engineered to endure the rigors of a school environment. In contrast, commercial-grade furniture is built with durability at the forefront, equipped to withstand frequent use and minimize the risk of breakage.
2. Compromised Safety: Furniture not explicitly designed for educational settings may fall short of meeting safety standards, increasing the likelihood of accidents and injuries among both students and staff.
3. Ergonomics Concerns: Commercial furniture integrates ergonomic principles, promoting proper posture and comfort. This reduces the risk of musculoskeletal problems in students and staff members. Residential furniture often lacks these essential features.
4. Hygiene and Cleanliness Challenges: Furniture brought from home could harbor allergens, pests, or germs detrimental to the health of students and staff. Commercial-grade furniture, engineered for easy cleaning, significantly reduces the risk of illness spread.

Benefits of Commercial Grade Furniture

1. Safety and Adherence to Regulations: Commercial furniture is engineered in accordance with safety regulations specific to educational environments. It guarantees structural integrity and minimal accident risks, fostering a secure atmosphere.
2. Enduring Durability: Built to withstand substantial use, commercial-grade furniture exhibits a longer lifespan than its residential counterparts. This durability translates to fewer replacements and repairs over time, thereby offering financial savings.
3. Enhanced Ergonomics and Comfort: Commercial furniture's ergonomic design ensures superior comfort during extended periods of use. It contributes to a more comfortable learning experience and reduces the likelihood of discomfort or strain.
4. Aesthetic Appeal and Learning Environment: The visual appeal of commercial furniture enhances the learning environment. With a diverse range of styles and colors, schools can create a harmonious and engaging space that positively impacts student morale and engagement.

5. Simplified Maintenance: Designed for effortless maintenance and cleaning, commercial furniture aids in swift sanitization efforts. This feature promotes a hygienic environment, crucial for student and staff well-being.

Recommendation on use of Commercial Grade Furniture

1. To establish a conducive and secure learning environment, school facilities should prioritize commercial-grade furniture over personal or residential options. Implement this recommendation through the following steps:
2. Policy Establishment: Develop a well-defined policy that restricts the use of personal or residential furniture within school premises. Clearly communicate the rationale behind this policy to all staff members.
3. Quality Investment: Allocate resources to procure commercial-grade furniture. Partner with reputable suppliers renowned for producing furniture that aligns with safety, durability, and ergonomic standards.
4. Staff Education: Educate staff on the importance of opting for commercial-grade furniture and the associated risks of using personal items. Encourage them to prioritize safety and comfort for both themselves and their students.
5. Periodic Assessments: Conduct regular evaluations of existing furniture inventory to identify items not meeting commercial standards. Promptly replace or retrofit such items to ensure compliance with safety and quality norms.
6. Collaborative Engagement: Engage stakeholders, including staff, parents, and relevant parties, to elucidate the reasoning behind the policy. Collaborative efforts guarantee a united approach towards creating a secure and productive learning environment.

Choosing commercial-grade furniture over personal or residential alternatives substantiates the commitment to safety, functionality, and an enriching learning atmosphere. The benefits extend beyond initial cost considerations, offering enhanced safety, longevity, comfort, aesthetics, and functionality that collectively enrich the educational journey for all stakeholders involved.

Reporting and Addressing Concerns

Establish a reporting system for identifying hazards or concerns related to furniture handling. Encourage staff to report damaged equipment, obstacles, or any other potential risks. Outline the process for addressing reported concerns promptly.

While it is discouraged to utilize staff/faculty furniture, schools should have a process in place for staff/faculty to report any furniture that they plan to bring on site. This will allow the school to ensure that it is of commercial quality and that a plan is in place for proper handling.

Training and Education

It's important to provide proper training for staff members involved in furniture handling.

Training Topics

Safe Lifting Techniques: Provide training on proper lifting techniques to minimize the risk of musculoskeletal injuries. Emphasize techniques such as bending at the knees, keeping the back straight, and using the legs to lift.

Equipment Usage: Familiarize staff with the various types of dollies, furniture moving equipment, and accessories available. Teach them how to choose the appropriate equipment for different types of furniture and how to use it safely.

Ergonomics: Educate staff on the importance of ergonomics and how to set up furniture to promote proper posture and comfort. This is especially important for classrooms and office spaces.

Risk Assessment: Train staff to assess the risks associated with moving specific furniture items, considering factors such as weight, size, and the path of movement. This enables them to plan ahead and mitigate potential hazards.

Communication and Coordination: Highlight the significance of clear communication and coordination during the furniture handling process. Teach staff how to signal movements, stops, and changes in direction effectively to prevent collisions and accidents.

Integration with School Policies: Incorporate furniture handling training into the school's broader safety policies. Ensure that staff understand the alignment between safe furniture handling practices and the school's commitment to well-being.

General Outline of OSHA's Material Handling and Storage Regulations

1. Safe Storage Practices: This section emphasizes the importance of storing materials in a way that prevents hazards, including tripping hazards, falling materials, and obstructions in pathways. Schools should consider the layout of storage areas to ensure that materials are stored safely and securely.

2. Stacking and Piling: §1910.176(b) outlines regulations for proper stacking and piling of materials to prevent collapses. When stacking furniture, supplies, or equipment, ensure that stacks are stable, not too high, and positioned on a stable surface to prevent tipping.

3. Handling and Storage of Materials Safely: §1910.176(c) highlights that materials should be handled and stored in a manner that does not create a hazard. This involves considering the weight, size, and nature of the materials being moved or stored.

4. Clearance and Aisles: §1910.176(d) focuses on maintaining clear aisles, passageways, and working spaces to facilitate safe movement of personnel and materials. This is particularly important in school storage rooms, classrooms, and other areas where furniture and supplies are kept.

5. Storage of Materials Inside Buildings: §1910.176(e) addresses safe storage practices within buildings. It emphasizes that stored materials should not obstruct exits, fire protection equipment, or electrical panels. Schools must ensure that materials are not blocking pathways, doors, or safety equipment.

6. Storage of Materials Outside Buildings: §1910.176(f) pertains to the storage of materials outside buildings. When schools have outdoor storage areas, materials should be properly secured to prevent them from becoming dislodged, creating tripping hazards, or causing other accidents.

7. Storage Arrangements: §1910.176(g) discusses the need to ensure that stored materials are arranged in a manner that prevents them from falling, collapsing, or rolling. Proper arrangements can help mitigate the risk of accidents and injuries caused by improperly stored materials.

8. Housekeeping: §1910.176(h) emphasizes the importance of maintaining good housekeeping practices. This includes promptly removing debris, waste, and unused materials from work areas to prevent clutter and tripping hazards.

9. Inspection of Materials: §1910.176(i) advises conducting regular inspections of stored materials to identify and address any potential hazards. Schools should have procedures in place for staff members to report damaged or unstable furniture or equipment.

While OSHA's Material Handling and Storage Regulations provides general guidelines for materials handling and storage in various workplaces, schools can adapt these principles to ensure the safe movement and storage of furniture, supplies, and equipment within their facilities. Prioritizing safety through proper storage, stacking, and handling practices can contribute to a safer and more productive learning environment for students, staff, and faculty.

Resources and References

Commercial Furniture Suppliers

The state of Vermont has a list of commercial furniture suppliers which can be found on the following page: https://bgs.vermont.gov/furniture.

Training Videos

Furniture Handling-Lifting Technique Video: https://www.youtube.com/watch?v=u6Ig1rt2e8I

How To Use a Dolly with a Buddytruk: https://www.youtube.com/watch?v=oIq-EJgYZQs

VSBIT Safety Grant

Multi-Line members can take advantage of the safety grant to purchase furniture moving equipment. To learn more check out grants page: https://www.vsbit.org/grants.

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Appendix A - List of Different Types of Dollies and Furniture Moving Equipment

Choosing the appropriate equipment based on the types of furniture commonly used in schools is important. Proper equipment can improve efficiency and productivity during setup. Factors to consider, such as weight capacity, maneuverability, and adaptability to different surfaces.

Platform Dollies:

Platform dollies consist of a flat surface mounted on four wheels. They are versatile and can handle a wide range of furniture items. Platform dollies come in different sizes and weight capacities, making them suitable for moving items like desks, chairs, and boxes.

Furniture Dollies:

These dollies are specifically designed for moving furniture. They often have padded surfaces or straps to secure the furniture in place, preventing scratches and damage during transit. Furniture dollies can be used for heavy items like bookcases, cabinets, and large desks.

Appliance Dollies:

Appliance dollies, also known as hand trucks, are designed for moving heavy appliances and larger items. They feature a pair of wheels and a flat platform to support the weight of the item being moved. Appliance dollies are useful for moving refrigerators, washers, dryers, and other bulky items.

Chair Dollies:

Chair dollies are specifically designed for moving stacks of chairs efficiently. They often have tiers or racks where chairs can be stacked securely. These dollies are particularly useful in school auditoriums, gymnasiums, and multipurpose rooms.

Desk Dollies:

Similar to chair dollies, desk dollies are designed to move multiple desks at once. They typically have adjustable components to accommodate different desk sizes and shapes.

Panel Dollies:

Panel dollies are designed to move partitions, dividers, and panels commonly found in open office spaces or classroom configurations. They often have adjustable features to secure and transport panels of varying sizes.

Piano Dollies:

Piano dollies are heavy-duty dollies designed to move large and heavy instruments like pianos. They have sturdy construction and often feature specialized padding to protect the piano's finish.

Caster Dollies:

Caster dollies are small dollies equipped with swivel casters, making them ideal for maneuvering furniture in tight spaces. They are useful for moving items that are difficult to lift, such as filing cabinets or bookshelves.

Stair Climbing Dollies:

Stair climbing dollies are equipped with innovative mechanisms that allow them to navigate staircases easily. They are particularly useful when moving furniture between different floors in a school building.

Hydraulic Lift Dollies:

These dollies feature hydraulic mechanisms that allow you to raise furniture off the ground, making it easier to move heavy items across uneven surfaces or thresholds.

Furniture Sliders:

Furniture sliders are flat, smooth pads that can be placed under furniture legs or corners. They reduce friction and make it easier to slide furniture across floors, minimizing the need for lifting.

Straps and Moving Harnesses:

Straps and moving harnesses can be used to lift and move heavy furniture items in a controlled manner. These accessories distribute the weight more evenly across the body, reducing the strain on individual muscles.

Moving Blankets and Pads:

Moving blankets and pads provide cushioning and protection for furniture during transport. They can be wrapped around items to prevent scratches, dents, and other damage. These blankets also offer a degree of grip, making it easier to slide items without directly contacting the floor.

Hand Trucks and Convertible Hand Trucks:

Hand trucks, also known as utility carts, have a vertical frame with wheels and a platform. They are versatile for moving boxes, smaller furniture items, and other loads. Convertible hand trucks can be used as both a standard hand truck and a platform dolly, offering greater flexibility.

Lift Straps and Moving Harnesses:

Lift straps and moving harnesses distribute the weight of heavy furniture across the body, making lifting and moving more manageable. They are particularly helpful for carrying items up or down stairs and for maintaining proper lifting techniques.

Pallet Jacks:

Pallet jacks are devices with forks that can be slipped under pallets or heavy objects. They are commonly used in commercial settings but can be useful for moving large furniture items that are on pallets or skids.

Lifting Belts and Forearm Forklifts:

Lifting belts and forearm forklifts are designed to help people lift and move heavy items with improved posture and reduced strain. They can be particularly useful for moving bulky furniture items like couches and mattresses.

Furniture Lifting Levers:

Furniture lifting levers use leverage to lift furniture off the ground, allowing you to place gliders or sliders underneath the legs. This makes it easier to move furniture without causing damage to the floor.

Suction Cup Lifters:

Suction cup lifters create a vacuum seal on smooth surfaces, enabling you to lift and move glass tabletops, mirrors, and other items with a flat surface. They can be useful for delicate furniture items.

Furniture Moving Straps:

Furniture moving straps are designed to allow two people to work together to lift and move heavy items more easily. These straps distribute the weight and provide better control over the movement.

Tow Straps and Rope:

For moving large items, you can use tow straps or ropes to create makeshift harnesses or loops that make lifting and moving more manageable. However, it's important to ensure proper lifting techniques and avoid strain.

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Appendix B - Pre-Setup Checklist for Furniture Handling

Pre-Setup Checklist for Furniture Handling in Schools

Before initiating the furniture setup process, it's essential to ensure that all necessary preparations are in place to prioritize safety and efficiency. This checklist provides a comprehensive guide for schools to follow:

1. Planning and Organization:

- ☐ Determine the layout of each room or area where furniture will be placed.
- ☐ Assign roles and responsibilities to staff members for the setup process.
- ☐ Identify high-traffic areas and pathways to ensure easy and safe movement of furniture.

2. Equipment Readiness:

- ☐ Inspect and ensure the availability of dollies, furniture moving equipment, and accessories.
- ☐ Check the condition of straps, restraints, and padding for equipment like dollies.
- ☐ Ensure all necessary tools, such as wrenches or screwdrivers, are readily available for assembly.

3. Inventory Check:

- ☐ Create an inventory of all furniture items that need to be moved, including their sizes and weights.
- ☐ Identify any fragile or valuable items that require special handling or additional protection.

4. Space Preparation:

- ☐ Clear pathways of obstacles, debris, and tripping hazards.
- ☐ Remove or cover items that might be damaged during the setup process, such as artwork or delicate decorations.

5. Safety Considerations:

- ☐ Ensure fire exits, emergency exits, and pathways are not blocked by furniture.
- ☐ Verify that furniture placement complies with safety regulations and guidelines.

6. Communication:

- [ ] Hold a pre-setup meeting to brief staff members on the setup plan, roles, and safety protocols.

- [ ] Establish clear communication signals for guiding furniture movement, stops, and direction changes.

7. Personal Protective Equipment (PPE):

- [ ] Provide staff members with appropriate PPE, such as gloves and back support belts, if needed.

8. Team Coordination:

- [ ] Ensure there is enough staff members available for the setup process.

- [ ] Assign specific tasks to individuals or teams to streamline the process.

9. Assembly and Disassembly:

- [ ] If applicable, gather necessary tools for assembling and disassembling furniture items.

- [ ] Confirm that staff members are familiar with the assembly instructions and have the required tools.

10. Review and Adapt:

- [ ] Conduct a final walkthrough of the setup plan and identify any potential challenges.

- [ ] Be prepared to adapt the plan based on any unexpected obstacles or changes.

11. Emergency Procedures:

- [ ] Review emergency procedures with staff, including evacuation routes and steps to take in case of accidents.

12. Hydration and Breaks:

- [ ] Encourage staff members to stay hydrated and take short breaks to prevent fatigue.

13. Reporting and Feedback:

- [ ] Establish a reporting system for identifying any hazards or concerns during the setup process.

- [ ] Encourage staff to provide feedback on the efficiency and safety of the process.

14. Post-Setup Inspection:

- [ ] After the furniture is in place, conduct a thorough inspection to ensure stability and safety.
- [ ] Address any issues promptly before allowing students and staff into the area.