

## STONE CARVING LAB

### SPACE DESCRIPTION

The Stone Carving Lab is a dedicated space used by students to explore, develop, and express their creative talents by working with stone. This space requires a large open area, direct access to the exterior, and storage space for materials and tools.

The Lab shall have stone carving stations arranged in a grid or linear pattern and served by a hoist and crane for positioning large pieces of stone. Electricity and compressed air shall be provided overhead. This is a dusty space that requires frequent cleaning. Stone carving dust is routinely removed from surfaces using blowers. Portable suction devices and a dust collection system shall be provided. Walls shall be washable epoxy paint.

Additional support spaces for stone carving consist of a dedicated general classroom, outdoor area for hand carving, interior storage space, and a tool room. Classes move back and forth between the lab and the classroom.

An adjacent outdoor covered area, accessible by overhead door, is preferred for outdoor instruction. Provide space for a dumpster as well as an outdoor area for leftover stone and dust. Plan for forklift access to the Lab where stone will be offloaded from pallets and reduced to movable sizes.

### SUCCESS FACTORS

**Ventilation and dust management:** It is necessary to have appropriate and sufficient portable and permanent mechanical systems, including additional filtration. See Art Lab Suite for additional factors.

### GENERAL

All perimeter walls shall extend full height to deck.

Anticipated Room Occupancy 16

Minimum Ceiling Height in Lab: 10' clear with additional height as required for overhead equipment.

### ADJACENCIES

Dedicated General Classroom

Separate adjacent storage space for tool crib.

Enclosed separate space for air compressor.

Direct access to the exterior, with overhead door.

Outdoor space for initial receipt of large pieces of stone, hand carving, waste materials.

Display space for student work: Gallery. Visibility of program in action from high-traffic areas in the building.

Access to laundry, locker rooms, showers, and custodial amenities.

## ACOUSTIC

Acoustic ratings for Stone Carving perimeter walls: STC 50. Special accommodations may be required due to location in the building. Acoustical isolation and/or acoustic surface treatment on walls and ceilings may be required. Acoustic isolation of air compressor equipment is required.

Maximum recommended HVAC Background Noise: 40dBa

Follow the recommended methodologies and best practices for mechanical system noise control in ANSI Standard S12.60; the 2015 ASHRAE Handbook-- HVAC Applications, Chapter 48, Noise and Vibration Control (with errata); and AHRI Standard 885–2008.

Maximum NC Level for VAV's shall be less than 30 at maximum CFM.

## MECHANICAL

Provide plumbing and a dust collection system per OSHA requirements.

Special air handling, ventilation, and additional filtration for particulates are required in the Stone Carving Lab. Dust containment, collection, and filtration required. Coordinate with specific program requirements.

Compressed air / air compressor. Provide overhead retractable compressed air hoses to each work station.

## ELECTRICAL & DATA

Provide electricity per OSHA requirements.

Provide voltages as required by selected equipment. 120/208V and 277/480V typical. Verify equipment specifications and requirements with program.

Place wall outlets at no more than 6' intervals or as necessary to allow for 30% coverage.

Provide overhead retractable outlets to each work station.

## LIGHTING

Provide low-brightness luminaires with high visual comfort probability (VCP) in all viewing directions. Average 40fc at 30" A.F.F. Min CRI 80.

Lighting watts per square foot and controls shall meet the latest requirements of ASHRE 90.1

Natural daylight when possible, with North-facing windows or clerestory preferred.

Light fixtures shall be suitable for the dusty environment.

## TECHNOLOGY

Provide Wireless capability in all labs.

## ACCESSORIES AND EQUIPMENT

Provide 16 stone carving stations; each approximately 10' x 10' for safety, with a bench or sturdy worktable 2' X 2' with 3'-0' around for movement.

Provide overhead mounted crane system with hoist and chains with a reach range to cover the entire carving area. Space below hoist system to be 10' clear minimum. Hoist shall be capable of moving up to a 1-ton piece; about 11 CF.

Air Compressor in separate, adjacent room.

Portable suction devices.

Provide two framed 4' x 4' tackboards within each Art Lab.

Provide storage systems within the Lab, including a peg board for tools. Provide wall and base cabinets countertops. Lockers shall be provided in a separate space or adjacent hallway.

Provide a tool storage room within the Lab. The tool room must allow for student access, 10 sets of hand tools and pneumatic tools, 20 tool boxes that are 12" X 18" each, and an angle grinder, and a mounted bench grinder, at minimum.

## FURNITURE

Furniture shall be selected for durability, cleanability, and flexibility.

Provide sculptor's benches and sturdy worktables capable of supporting large pieces of stone.

## FINISHES

Floors shall be sealed concrete without floor drains.

### Ceilings

Recommended Height: 10' minimum clear headroom under hoist and crane.

Ceilings shall have an NRC of .70 to .85.

### Floors

Sealed concrete. No floor drains.

### Walls

Washable Epoxy Paint.

## DOORS AND WINDOWS

Doors shall be minimum STC 30 with 6" x 30" Window Lite preferred.

Provide Overhead door with direct access to the exterior.

Consider interior windows to corridor for visibility, exposure of the program in action.

Windows or clerestory for daylight: North facing preferred.