

RELOCATABLE CLASSROOM RELOCATION AND FOUNDATION SYSTEM

PART 1 – GENERAL

1.1 PROJECT DESCRIPTION

The Contractor shall provide all labor, materials, equipment, supervision, permits, transportation, and incidentals necessary to relocate and reinstall two (2) existing relocatable classroom buildings, each approximately **64'-0" x 24'-0" (±1,536 SF per unit)**.

Relocation shall be:

From:

Gregg Middle School
500 Greenwave Blvd., Summerville, SC

To:

Sand Hill Elementary
324 Gnarly Oak Ln., Summerville, SC

Work includes:

- Disconnection and preparation for transport
- Transportation (including separation into halves if required)
- Installation of new CMU pier foundation system
- Installation of earth anchor and strap tie-down system
- Resetting, leveling, and structural reconnection
- Marriage line restoration (if split for transport)
- Final anchoring and stabilization

This specification incorporates structural drawings dated 12/12/2025 (Sheets S1-101 and S1-201).

1.2 CODES AND STANDARDS

Comply with:

- IBC 2021
- ASCE 7-16

- 2020 South Carolina Minimum Specifications Guide for Relocatable Classrooms
 - 2020 South Carolina Annual Inspection and Maintenance for Relocatables
 - Applicable state and local codes
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1.3 DESIGN CRITERIA (FOUNDATION)

Soil Bearing (Assumed):

- 2,000 PSF allowable minimum

Wind Design:

- 139 mph (3-sec gust)
- Exposure B
- Enclosed structure
- Velocity pressure $q = 24$ psf

Seismic:

- Site Class D
 - Seismic Design Category D
 - Risk Category II
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1.4 SUBMITTALS

Contractor shall submit:

- Transportation plan and route
 - Oversize load permits
 - Foundation layout verification
 - Earth anchor product data
 - Installation procedures
 - Certification that installation matches structural drawings
 - Warranty documentation
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PART 2 – PRODUCTS

2.1 CMU PIERS

- 16" x 16" CMU (ASTM C90)
- 1900 psi minimum compressive strength
- Dry stacked
- Solid cap block minimum 4" thick
- Maximum pier height: 2'-8" (verify field conditions)

2.2 BEARING PADS

- 18" x 18" precast concrete pad OR
- 18" x 18" ABS pad for portable installations

Subgrade preparation:

- Excavate 3" below pad
- Remove organic material
- Backfill with compacted sand leveling course

2.3 EARTH ANCHORS

Minimum properties:

- 48" length
- 5/8" shaft diameter
- Minimum one 6" helix
- 11" x 17" stabilizer plate
- U-shaped head for dual-bolt strap connection
- Integrated tension locking mechanism

Pre-drilling not permitted.

2.4 STRAPPING AND HARDWARE

- 1-1/4" x 14ga galvanized flat strap (Fy = 33 ksi, G60 min.)
 - Frame clip assembly rated minimum 1.4 kips working load
 - Swivel strap connectors
 - (2) 3/8"Ø lag bolts per strap, minimum 3" embedment
 - Crimp seals (2 crimps per seal)
 - Slotted bolt for pretensioning
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PART 3 – EXECUTION

3.1 PREPARATION AT EXISTING SITE

At Gregg Middle School:

- Disconnect electrical, plumbing, sewer, data, and HVAC.
- Remove skirting, stairs, ramps, and appurtenances.
- Cap utilities in accordance with code.
- Prepare units for transport.

If required for transport width compliance, separate 24' wide units into two (2) 12' sections.

Contractor responsible for preventing structural damage during separation.

3.2 TRANSPORTATION

- Obtain all required permits.
 - Provide escort vehicles if required.
 - Protect units from racking and weather intrusion.
 - Deliver to Sand Hill Elementary.
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3.3 FOUNDATION INSTALLATION

Install foundation per Structural Sheets S1-101 and S1-201.

General Requirements

- Center piers beneath supporting beams/walls.
- Dewater excavations.
- Footings bear on undisturbed soil.
- Densify loose soil.

CMU Piers

- Install 16"x16" dry-stacked CMU piers.
- Install solid cap block at bearing.
- Install 18"x18" bearing pads over compacted sand leveling base.
- Shim with hardwood as required.

Pier layout shall match the foundation plan for Portable 1 and Portable 2.

Notify Engineer of Record of discrepancies prior to proceeding.

3.4 EARTH ANCHOR INSTALLATION

Install anchors per Detail 7/S1-201:

Sequence 1

- Machine-drive anchor.
- May tilt up to 10° from vertical.
- Leave 14–16" exposed initially.

Sequence 2

- Drive stabilizer plate flush.
- Complete anchor to flush with grade.

Sequence 3

- Install diagonal strap.
- Pretension.
- Install vertical strap.
- Fully tension using locking mechanism.

Stabilizer plate must be on same side as diagonal strap.

3.5 RAMP AND STAIR HOLD-DOWNS

Provide:

- 24" x 5/8" tie-down anchors
- Installed at 8'-0" O.C.
- At each landing beam
- 1-1/4" x 20ga strapping
- 40" soil nails cross-installed

Stair and ramp bearing per ramp designer.

3.6 ROOF AND SHEATHING REQUIREMENTS

Verify hurricane clips at each truss.

If missing, install Simpson H3 clip per detail.

Correct sheathing fastening deficiencies using Simpson T08C225WQC screws per specified nailing pattern.

3.7 SETTING AND RECONNECTION

- Set units on CMU piers.
- Level and secure.
- Reconnect structural marriage line if split.
- Restore roof seam, wall finishes, floor system.
- Reconnect electrical, plumbing, HVAC, and data systems between halves.

Units shall be structurally sound and weather-tight.

3.8 CLEANUP

- Remove debris from both sites.
 - Leave site broom clean.
 - Coordinate inspections with AHJ.
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3.9 WARRANTY

Provide minimum one (1) year workmanship warranty covering:

- CMU pier installation
- Anchor system
- Structural reconnection
- Weatherproofing at marriage line