

SECTION 31 66 00
THE SLEEVE-IT™ 1224R FENCE POST FOUNDATION SYSTEM (12" DIAM.)

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Sleeve-It™ 1224R fence post foundation system
- B. Subgrade preparation for system installation
- C. Assembly of the Sleeve-It™ 1224R system
- D. Installation of fence posts
- E. Concrete anchorages for posts

1.2 REFERENCES

- A. ASTM A82 – Specification for Steel Wire, Plain
- B. ASTM A496 – Specification for Steel Wire, Deformed
- C. ASTM A497 – Specification for Steel Welded Wire Reinforcement, Deformed
- D. ASTM C94 - Ready-mixed Concrete
- E. ASTM C1372 - Specification for Segmental Retaining Wall Units
- F. ASTM D698 – Test Method for Laboratory Compaction of Soils Using Standard Effort
- G. IBC 2006 – International Building Code
- H. NCMA TR127B – Design Manual for Segmental Retaining Walls

1.3 RELATED SECTIONS

- A. Section 03 30 00 - Cast-In-Place Concrete: Concrete anchorage for posts
- B. Section 31 00 00 - Earthwork
- C. Section 32 32 23 - Segmental Retaining Walls
- D. Section 32 31 00 - Fences and Gates

1.4 FENCE FOUNDATION DESIGN REQUIREMENT

- A. Pre-engineered fence foundation designed in compliance with IBC Section 1013.1, 1013.2, and 1607.7.1 such as Sleeve-It 1224R or equal.

1.5 PROJECT RECORD DOCUMENTS

- A. If required in Project Specifications, accurately record actual locations of property perimeter posts relative to property lines and easements.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with the standards prescribed in this section in addition to all standards related to the construction and installation of the segmental retaining wall system, and as prescribed by the fencing manufacturer, the segmental wall system manufacturer and the design engineer, as appropriate.

1.7 FIELD MEASUREMENTS

- A. Verify that field measurements (horizontal spacing requirements) are as instructed by the fence system manufacturer.

PART 2 PRODUCTS

2.1 MATERIALS

- A. SLEEVE-IT™ SYSTEM CAVITY COMPONENTS — High density polyethylene sleeve and caps. Sleeve units are two pieces specifically manufactured for field assembly. Cap shall fit securely and prevent debris and soil material from entering the sleeve cavity. Only sleeves and caps manufactured by Strata Systems, Inc. are approved for use as part of the Sleeve-It™ system. No other materials or substitutions are allowed.

- B. SLEEVE-IT™ SYSTEM CANTILEVER BASE — Cantilever base shall be welded wire reinforcement using D-4 and D-7 wire and meet the requirements of ASTM A497. Steel wire shall comply with ASTM A496. Exposed portions of base shall be coated with a proprietary PVC Plastisol coating in accordance with manufacturer's requirements. Only cantilever bases specifically manufactured and provided by Strata Systems, Inc. are approved for use as part of the Sleeve-It™ system. No other materials or substitutions are allowed.
- C. STRUTS — Two struts shall be furnished for each Sleeve-It™ unit. Steel struts shall consists of W-4 wire size (min.) (0.225 in. dia.) and comply with ASTM A82. Exposed portions of struts shall be coated with proprietary PVC plastisol coating in accordance with the manufacturer's requirements. Only struts specifically manufactured and provided by Strata Systems, Inc. are approved for use as part of the Sleeve-It™ system. No other materials or substitutions are allowed.
- D. CONCRETE – ASTM C94; commercial mix Portland cement concrete 3,000 psi minimum strength at 28 days, 3-4 in. slump, or as required by Fence System. Minimum strength shall not be less than 3,000 psi at 28 days.

PART 3 EXECUTION

3.1 ASSEMBLY & INSTALLATION

- A. General — The Sleeve-It™ fence post foundation system shall be installed in strict accordance with plans and specifications in a workmanlike manner. The installers shall be skilled in this type of construction.
- B. Assembly & Installation – Refer to instructions provided with units for specific information related to the assembly of the Sleeve-It™ system and the correct installation procedure. When the segmental retaining wall has been constructed to two feet from top not including the capstone:
 1. Prepare a level area approximately 24" wide x 36" deep behind the wall face. The prepared area should be 24" below the proposed top of wall (not including the cap stone).
 2. Take the two sleeve halves, one front (no slots) and one back (with slots) and set them vertically facing each other. Interweave the sleeve fingers along one side of the units, Spin the sleeve 180 degrees and interweave the sleeve fingers on the other side. Use furnished ties to secure the sleeve halves into a cylindrical unit.
 3. Place the PVC coated cantilever base on the prepared area with the vertical upright about 6" from the tail of the block.
 4. Slide the sleeve over the vertical leg (the uncoated portion) with the slotted side of the sleeve facing away from the wall face.
 5. Slip the uncoated end of each strut through the slots located in the back of the sleeve and connect them to the topmost transverse bar on the vertical leg inside the sleeve. Connect the coated ends of the struts to the coated base portion of the steel cantilever on the second transverse bar from the rear of the base.
 6. Reposition the entire system as needed by lifting it using the top transverse bar of the vertical portion of the steel cantilever inside the sleeve after assembly. Make sure the wall batter for any remaining courses of block is accounted for when positioning the Sleeve-It™ 1224R in its final location.
 7. Place enough 3/4" clean stone around the system to stabilize it. Set the lid in place with the handle perpendicular to the wall face. Use the handle as the center line measuring guide to ensure that the next Sleeve-It™ is placed with the proper spacing requirements as directed by the fence specifications.
 8. When installing geogrid around the Sleeve-It™ system, slit the geogrid perpendicular to the wall face just enough to fold around the sleeve ensuring that the grid is properly attached to the wall face everywhere with the exception of where the sleeve is. This method is acceptable by geogrid manufacturers when obstacles such as fence post foundations are present.
 9. Backfill soil as prescribed by retaining wall manufacturer. Backfill material above and surrounding the Sleeve-It™ system must be compacted to a minimum of 95% of the material's maximum dry density as determined by ASTM D-698 (Standard Proctor). Backfill and compaction within three feet of the wall face should be performed with hand operated equipment as recommended by the National

Concrete Masonry Association (NCMA) SRW guidelines. Care should be taken during the first 6-8" lift to avoid affecting the integrity of the struts extending back into the backfill zone.

10. Backfill shall be placed and compacted to the top of the Sleeve-It System Cavity prior to installation of post and placement of concrete (3,000 psi minimum strength at 28 days).
 11. Repeat Above Steps for next Sleeve-It™ unit.
 12. When installing fencing, posts must be concreted into the Sleeve-It™ cavity. Fence posts shall extend a minimum distance of 18" into the sleeve to ensure proper engagement with the Sleeve-It™ system. All posts must be on "inboard" side of vertical portion of cantilever base. Do not install posts between vertical leg and wall face. Post size is limited to 4"x4". Fill cavity completely with concrete (3,000 psi minimum). When concrete cures, topsoil or other surficial cover may be placed over the Sleeve-It™ system to create final, finished appearance.
- C. The Sleeve-It™ product shall be evenly spaced accounting for top of wall grade changes, curves, and corners. Use of the Sleeve-It™ 1224R is limited to the following rail/fence applications:
1. Chain Link / Ornamental Fence: 8'0" max height at 8'0" centers (Use of privacy cloth prohibited)
 2. Pedestrian Guards: 4'0" max height at 8'0" spacing
 3. For all other applications contact Strata Systems Inc. at 800-680-7750
- D. ALL material may be subject to site testing for compliance to the above specifications.