The following specification text has been prepared by Connect-EZ to assist design professionals in the preparation of a specification section covering shop-fabricated steel components that eliminate field welding of structural connections for tilt-up or precast panels, columns, and structural steel.

Utilize these paragraphs to insert text into Specification Section 03 30 00 – Cast-in-Place Concrete, 03 40 00 – Precast Concrete, 03 45 00 – Precast Architectural Concrete, 03 47 13 – Tilt-Up Concrete, 05 12 00 – Structural Steel Framing, or similarly titled section governing this work.

The following should be noted in using this document:

Text in black is intended to be placed in a project specification. Text in blue comprises notes to the specifier and locations within the CSI/CSC 3-Part Section Format where text should be inserted.

Optional text requiring a selection by the user is enclosed within brackets and as red text, e.g.: Source: [PA-12] [PA-18]"

Items requiring user input are enclosed within brackets and as red text, e.g.: "Manufacturer Qualifications: [\_\_] years’ experience."

Optional paragraphs are separated by an "OR" statement included as red text, e.g.: \*\*\*\* OR \*\*\*\*

For assistance on the use of the products in this section, contact Connect-EZ by calling 973-903-7836 or visit their website at www.theconnect-ez.com.

PART 1 – GENERAL

ADMINISTRATIVE REQUIREMENTS

Retain the following for a pre-installation conference held prior to start of product installation.

Pre-Installation Conference:

Attendance: [Architect,] [Owner,] [Contractor,] [Construction Manager,] [Design/Builder], manufacturer’s representative, installer, and related trades.

Review: Project conditions, manufacturer requirements, and product installation.

SUBMITTALS

 Action Submittals:

Shop Drawings: Illustrate products, installation, and relationship to adjacent construction.

Product Data: Manufacturer’s descriptive data and product attributes.

Informational Submittals:

Certificate of Compliance: Certification that installed products meet specified design and performance requirements.

QUALITY ASSURANCE

Retain the following to specify minimum experience of manufacturer and installer.

 Manufacturer Qualifications: Minimum [\_\_] years’ experience in work of this Section.

Installer Qualifications: Minimum [\_\_] years’ experience in work of this Section.

PART 2 – PRODUCTS

MATERIALS

Retain the following for tilt-up panel-to-foundation anchors. This anchor requires no on-site field welds, is installed from the building interior and eliminates the need for a perimeter slab pour-back strip.

Tilt-Up Panel Anchors:

Source: [PA-12] [PA-18] by Connect-EZ ([www.theconnect-ez.com](http://www.theconnect-ez.com/)) two-component welded steel anchor assembly and concrete fastener [or approved substitute].

Comply with ACI 318.

Comply with Seismic Design Category (SDC) A through F.

Nominal tension capacity: Minimum 24,000 PSI.

Manufacture and fabrication in USA.

Base Plate: ASTM A572 Grade 50.

Welds: Comply with AWS D1.1 Structural Welding Code.

Retain the following Concrete Fastener for Seismic Design Category (SDC) A through C.

 Concrete Fastener: Simpson Strong-Tie Carbon Steel, Titen HD Screw Anchor, ¾ inch x 10 inches.

Comply with ACI 355.2.

Comply with ICC-ES AC193.

Finish: Zinc plated to comply with ASTM B633, Class SC1.

Retain the following Concrete Fastener for Seismic Design Category (SDC) D through F.

Concrete Fastener: Threaded Rod and Epoxy as specified by Engineer of Record (EOR).

Comply with ASTM A193 Grade B7.

Retain the following (optional) interior panel anchor cover to conceal anchors.

 Panel anchor cover: Manufacturer’s pre-fabricated, steel cover to conceal anchor.

\*\*\*\* OR \*\*\*\*

Retain the following exterior installed low-profile tilt-wall panel-to-foundations anchoring. This anchor is 4 inches high and can be concealed by exterior landscaping or paving.

Tilt-Up Panel Anchors:

Source: PA-EX by Connect-EZ ([www.theconnect-ez.com](http://www.theconnect-ez.com/)) two-component welded steel anchor assembly and concrete fastener [or approved substitute].

Comply with ACI 318.

Comply with Seismic Design Category (SDC) A through F.

Nominal tension capacity: Minimum 18,000 PSI.

Manufacture and fabrication in USA.

Base Plate: ASTM A572 Grade 50.

Welds: Comply with AWS D1.1 Structural Welding Code.

Finish: Zinc, hot dip galvanized, complying with ASTM 123.

Concrete Fastener: Simpson Strong-Tie Carbon Steel, Torq Cut, Self Undercutting Anchor, 5/8 inch x 12 ½ inches.

Comply with ACI 355.2.

Comply with ICC-ES AC193.

Finish: Zinc plated to comply with ASTM B633, Class SC1.

\*\*\*\* OR \*\*\*\*

Retain the following for precast panel-to-foundation anchors. This anchor requires no on-site field welds is installed from the building interior and eliminates the need for a perimeter slab pour-back strip.

Precast Panel Anchors:

Source: PC-10 by Connect-EZ ([www.theconnect-ez.com](http://www.theconnect-ez.com/)) two-component welded steel anchor assembly and concrete fastener, [or approved substitute].

Comply with ACI 318.

Comply with Seismic Design Category (SDC) A through F.

Nominal tension capacity: Minimum 17,200 PSI.

Manufacture and fabrication in USA.

Base Plate: ASTM A572 Grade 50.

Welds: Comply with AWS D1.1 Structural Welding Code.

Retain the following Concrete Fastener for Seismic Design Category (SDC) A through C.

Concrete Fastener: Simpson Strong-Tie, Carbon Steel Titen HD Screw Anchor, ¾ inch x 8 ½ inches.

Comply with ACI 355.2.

Comply with ICC-ES AC193.

Finish: Zinc plated to comply with ASTM B633, Class SC1.

Retain the following Concrete Fastener for Seismic Design Category (SDC) D through F.

Concrete Fastener: Threaded Rod and Epoxy as specified by Engineer of Record (EOR).

Comply with ASTM A193 Grade B7.

Retain the following for column sockets for connection of steel tube or wide flange columns to column footings. This socket can accommodate any steel column size and eliminates diamond slab leave-outs. It installs 3/8 inch below the top of slab to provide uninterrupted screeding of concrete.

Column Connector:

Source: Columns Socket by Connect-EZ (www.theconnect-ez.com) [or approved substitute].

Material: Welded steel.

Comply with OSHA 1926.755.

Base Plate, ASTM A572 Grade 50, thickness and hole diameter/location as specified by Engineer of Record (EOR).

Welds: Comply with AWS D1.1 Structural Welding Code.

Drainage: Pre-fabricated weep drain.

Manufacture and fabrication in USA.

Protective Cover: Manufacturer’s temporary steel cap, compliant with OSHA requirements.

Retain the following for roof structural steel-to-concrete connectors. This connector casts into precast or tilt-up cast-in-place concrete and has slotted holes permitting 2 inch lateral movement. The chamber and bearing seat engage remotely, eliminating manual connections. These connectors are designed for use with Series “K”, “LH” and “DLH” joists.

Roof Panel Connector:

Source: V Chamber by Connect-EZ (www.theconnect-ez.com) [or approved substitute].

Material: Welded steel complying with ASTM A572 Grade 50.

Headed studs as sized by Engineer of Record (EOR).

Welds: Comply with AWS D1.1 Structural Welding Code.

Manufacture and fabrication in USA.

PART 3 – EXECUTION

INSTALLATION

Install in accordance with manufacturer’s instructions and approved Shop Drawings.