Note:
7. Refer to the following specifications for firestopping:
   a. 27 04 30 Penetration Firestopping
   b. 27 04 12 Penetration Firestopping
   c. 22 10 00 Plumbing
   d. 22 05 05 Plumbing
   e. 23 03 00 HVAC
   f. 27 03 37 Communication
   g. For Quality Control requirements, refer to the Quality Control portion of the specification.

2. Details shown are typical details, containing general information only. Always refer to the N.U.L. system detail for complete system requirements. If field conditions do not match requirements of details, approved alternate details shall be utilized. Design requirements, field conditions and dimensions need to be verified for compliance with the details, including but not limited to the following:
   * Fire Rating (F-Rating)
   * Temperature Rating (T-Rating)
   * Leakage Rating (L-Rating)
   * Quality Control
   * Pressure
   * Movement
   * Type and thickness of fire-rated construction.

3. If alternate details matching the field conditions are not available, manufacturer’s engineering judgment drawings are acceptable. Contact Hilti Inc. for alternative systems or Engineering Judgment (RJ) drawings. All governing local and regional building codes and UL or Intertek Classification or the intended temperature or fire ratings. Refer to the following specifications for firestopping.

4. References:
   b. NFPA 70 - National Electric Code
   d. NFPA 1171 - Fire Protection of Electrical and Electronic Systems - “Systems Engineering Judgments.”
   e. Laboratories, Fire Resistance Directory (Volume 1.)
   f. Laboratories, Fire Resistance Directory (Volume 2.)
   g. Protective Materials, category CLIV as classified by Underwriter’s Laboratories

For additional information on the details, refer to the most current “Underwriter’s Laboratories Fire Resistance Directory (volume 2.)”- "Notes to designer (delete this note after reading and replace with title block information)"

1. Any modification to these details could result in an application/system not meeting the system requirements. If field conditions do not match requirements of details, approved alternate details shall be utilized. See the following specifications for firestopping.

2. Details shown are typical details, containing general information only. Always refer to the N.U.L. system detail for complete system requirements. If field conditions do not match requirements of details, approved alternate details shall be utilized. Design requirements, field conditions and dimensions need to be verified for compliance with the details, including but not limited to the following:
   * Fire Rating (F-Rating)
   * Temperature Rating (T-Rating)
   * Leakage Rating (L-Rating)
   * Quality Control
   * Pressure
   * Movement
   * Type and thickness of fire-rated construction.

3. If alternate details matching the field conditions are not available, manufacturer’s engineering judgment drawings are acceptable. Contact Hilti Inc. for alternative systems or Engineering Judgment (RJ) drawings. No governing local and regional building codes and UL or Intertek Classification or the intended temperature or fire ratings.

For Quality Control requirements, refer to the Quality Control portion of the specification.
Refer to the following specifications for firestopping:

1. Firestop System installation must meet requirements of ASTM E 144 (UL 1140) listed assemblies that provide a fire rating of 2 hours for the construction being penetrated.
2. All governing local and regional building codes.
3. Firestopping materials, systems and components shall be listed by UL with a Firestop Label equipped with a QR code with the following information:
   - Rated for firestopping for a minimum of 2 hours.
   - Listed (or recognized) by Underwriter's Laboratories Inc.
   - Rated for use in the temperature range of 0 to 1000°F.
   - Firestop System installation must meet requirements of ASTM E 144 (UL 1140) listed assemblies that provide a fire rating of 2 hours for the construction being penetrated.
4. Firestop System installation must meet requirements of ASTM E 144 (UL 1140) listed assemblies that provide a fire rating of 2 hours for the construction being penetrated.
5. For additional information on the firestopping systems, refer to the most current "Underwriter's Laboratories Firestop Directory (Volume 2.)" or the "Firestop Council (IFC) Guidelines for Evaluating Firestop Systems Engineering Judgments."