Notes:
1. Refer to the following specifications for firestopping:
   a. 07 49 05 Firestopping
   b. 07 49 06 Penetration Firestopping
   c. 25 00 50 Plumbing
   d. 25 00 58 HVAC
   e. 25 00 50 Electrical
   f. 26 00 57 Communication
   For Quality Control requirements, refer to the Quality Control portion of the specifications.
2. Details shown are typical details containing general information only. Always refer to the full UL 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)
   - Water Rating (W-Rating)
   - Annular Space
   - Perforation
   - Movement
   - Type and Thickness of the rated construction.
3. Falsework details matching the field conditions are not available. Manufacturer's engineering judgment drawings are acceptable. Contact Hilti Inc. for alternative systems or Engineering Judgment (800-879-8000).
4. References:
   - 2013 Underwriter's Laboratories Fire Resistance Directory, Volumes 1 & 2
   - NFPA 70 National Electric Code

   - All governing local and regional building codes
   - Firestop System installation must meet requirements of ASTM E-84 (UL 177) tested assemblies that provide a fire rating equal to that of construction being penetrated.

   - All rated through-penetration assemblies shall be permanently labeled with a Hilti Firestop Label equipped with a QR code with the following information:
     - Warning: Do Not Disturb
     - Through Perforation Firestop System
     - UL System # (Products used)
     - Hourly Rating (H-Rating)
     - Total Area Listed

   - Contractor's Name

   - For outlet boxes requiring protection, use only Wall Opening Protective Materials, category CLIV as classified by Underwriter's Laboratories, Fire Resistance Directory (Volume 1).