

FIRE RATED DUCTWORK SYSTEM

PART 1 GENERAL

1.1 Summary

- A. Provide an IAS accredited lab classified two hour fire resistive assembly for all locations indicated on the drawings.
- B. The use of Fire Rated Duct shall be allowed where duct is shown to be protected by a fire rated drywall enclosure.
  - a. When using Fire Rated Duct in lieu of a fire rated drywall enclosure, the Sheet Metal Contractor shall coordinate the removal of the fire rated drywall enclosure with the General Contractor.
- C. The following commonly used terms shall also refer to Fire Rated Ductwork:
  - a. Fire Rated Duct
  - b. Fire Rated Enclosure
  - c. Fire Wrapped Duct
  - d. 2-Hour Duct
- D. Grease duct systems shall be:
  - a. Listed to ASTM E2336 in compliance with International Mechanical Code and NFPA 96 codes
  - b. Tested for conformance to ICC ES AC101.2 or equivalent
- E. Ventilation Ducts shall be:
  - a. ISO 6944 (1985) UL Classified HNLN V-5, V-18 or HNLJ V-6 or ASTM E119 and ASTM E814
- F. Fire Rated Duct shall mean specifically enhanced duct systems manufactured in accordance with the relevant construction standards as published by Firespray International Ltd and as considered by UL and Intertek in their classification and listings of the Flamebar system. Conquest Firespray LLC shall manufacture the duct and factory apply the BW11 coating in accordance with the relevant construction standards.

1.2 References

- A. SMACNA (Sheet Metal and Air Conditioning Contractors National Association) Standards: Comply with the detailing required for this ductwork assembly as shown in the Firespray International Ltd, relevant published construction standards.
- B. NFPA (National Fire Protection Association): Comply with ANSI/NFPA 90A "Standard for the Installation of Air Conditioning and Ventilation Systems" and ANSI/NFPA 90B "Standard for the Installation of Warm Air Heating and Air-Conditioning Systems".
- C. NFPA 96A Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.
- D. UL File #18284: "Report on Ventilation Duct and Through-Penetration Firestop System."
- E. ASTM E-119: Compliance as Intertek FTL/FMF 120-10. This includes compliance with the hose stream test requirements compliance with ASTM E814 FTL/FMF 120-09
- F. ISO 6944 (1985): "Fire Resistance Tests Ventilation Ducts."
- G. ISO 834 (1975): "Fire Resistance Tests-Elements of Building Construction."
- H. ASTM E-2336: "Fire Resistive Grease Duct Enclosures Systems"

1.1 Submittals

- A. Shop Drawings: Submit properly scaled and dimensioned layouts for each fire rated system showing individual identifying marks for each component of the system in accordance with the UL and/or Intertek classifications and listing requirements.
- B. Record Drawings: At project closeout submit record drawings of installed ductwork systems including accessories, outlets and inlets.
- C. Certificate of Conformity: Provided by the manufacturer's local representative who shall inspect the completed installations and submit a certificate in the name of the Owner certifying compliance with the relevant Firespray International Ltd. Construction and Installation standards.

1.2 Quality Assurance

- A. All ductwork to be used on fire rated systems shall be constructed to compliance with the relevant enhanced Firespray International Ltd. construction standards and with the shop drawings. After inspection the ductwork shall be degreased and coated with BW11. After coating and curing, each individual section shall be inspected and labeled in accordance with the UL classification and Intertek Listing requirements. Records of all pieces shall be kept for inspection by the Authority Having Jurisdiction (AHJ).

1.3 Delivery, Storage, and Handling

- A. Protect factory fabricated and coated ductwork, accessories and purchased products from damage during shipping, storage and handling. Prevent end damage, and prevent dirt and moisture from entering ducts and fittings.
- B. Store ductwork indoors and protect from damage from other trades. Where necessary to store outside for a short time period store above grade on skids and enclose with secured waterproof wrapping.

PART 2 PRODUCTS

2.01 Manufacturer of Flamebar BW11 Coating and Ancillaries

- A. **Manufacturer:** Conquest FireSpray LLC., 28408 Lorna, Warren, MI 48092 (586)576-7600, [www.conquest-firespray.com](http://www.conquest-firespray.com)
- B. **Contact:** sales@conquest-firespray.com

2.02 Ductwork Construction

- A. Comply with ASTM A527, Lock forming quality.
- B. Comply ASTM A 525 G60 or G90 Zinc coating, mill phosphate.
- C. Comply with Firespray International Ltd standards (STD's) for rectangular, circular and flat oval ductwork (STD's 251, 351, 353, 355 and 357 respectively) and Grease Duct (STD 380, 381, 382, 383). Copies of these are available on request.
- D. Duct Sealant: As supplied by Conquest Firespray.
- E. Gasketing: As supplied by Conquest Firespray.
- F. G-Clamps: As supplied by Conquest Firespray.
- G. Insulation on Flamebar BW11 Grease Duct Systems shall be 2 layers of Unifrax FireWrap Max 2.0 or 1.5 Elite applied as required by Unifrax installation requirements.
- H. Insulation (when required) on Flamebar BW11 Ventilation Systems shall be foil faced mineral density 4lb/cf.

PART 3 EXECUTION

3.01 Inspection

Examine areas and conditions under which ductwork is to be installed. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the manufacturer.

3.01 Installation of Ductwork

Install in accordance with the relevant Firespray construction standard and any applicable local codes.

3.02 Hangers

Conquest Firespray will provide installing contractor hanger size and spacing based on the duct configuration. All hangers will be sized to hold the fire rated ductwork in vertical and horizontal configuration. Hanging system will conform to the UL classification and Intertek listing.

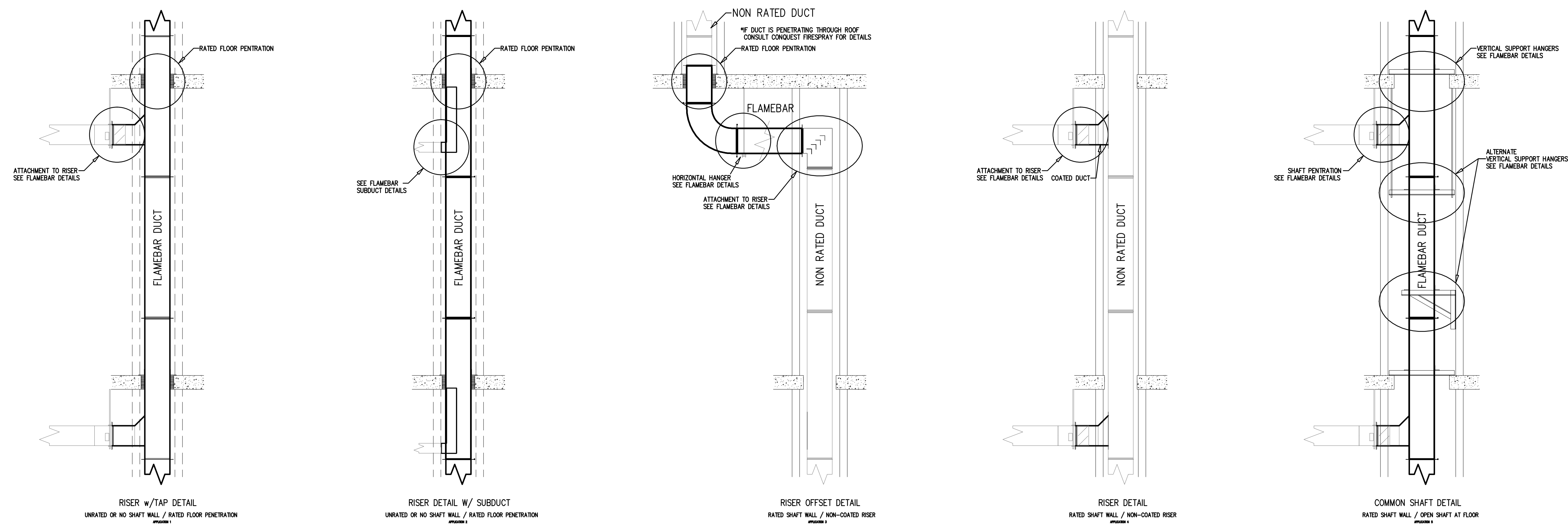
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STREET ADDRESS  
CITY, STATE ZIP CODE

**CONTRACTOR'S NAME**  
STREET ADDRESS  
CITY, STATE ZIP CODE  
PH (###) ###-#### FX (###) ###-####

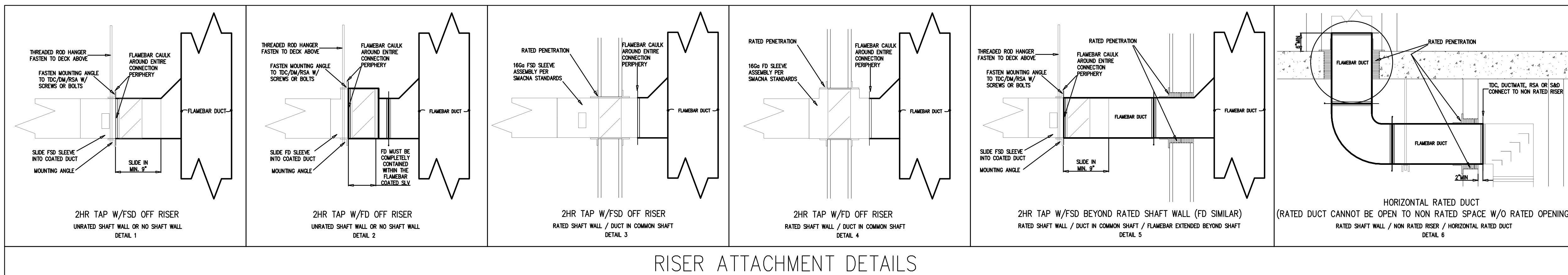
Mechanical Detailing by:  
**ConQuest**  
FIRE RATED DUCT SOLUTIONS  
28408 Lorna Warren, MI 48092  
Phone (586) 576-7600 Fax (586) 576-8800  
<http://www.conquest-firespray.com>

Date:	
Revision:	
Date:	XX-XX-XX
Revision:	FOR REVIEW
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Checked By:	
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Title:	2HR FLAMEBAR FABRICATION DETAILS
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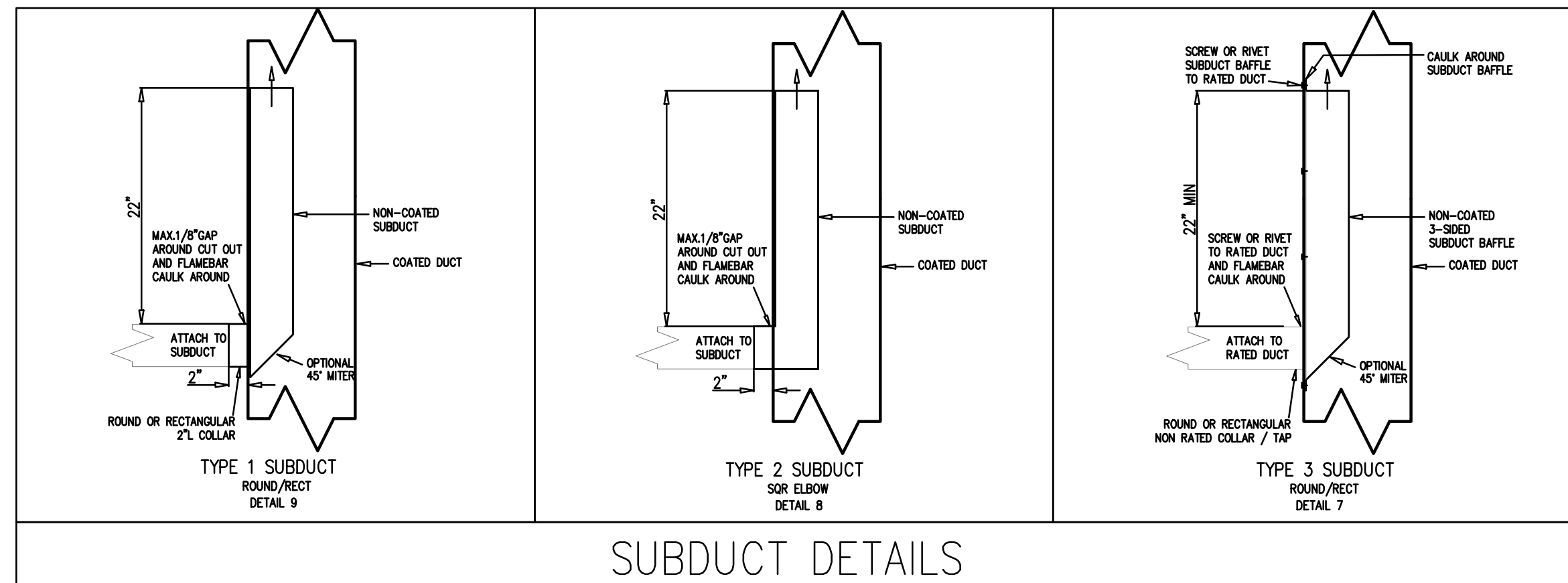
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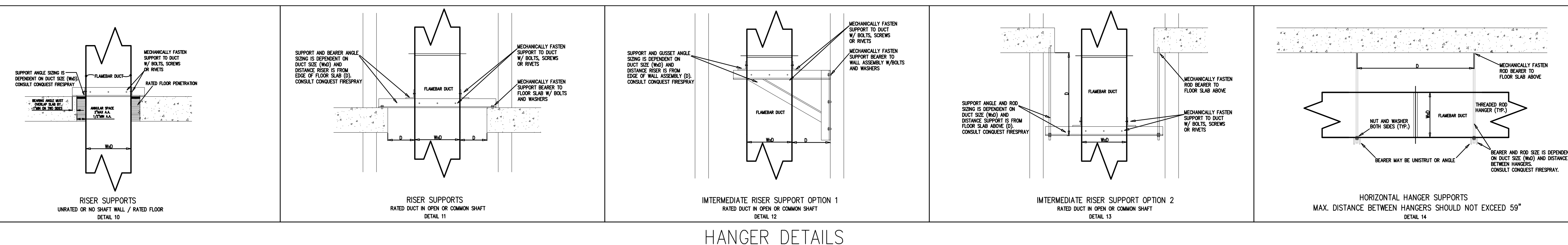
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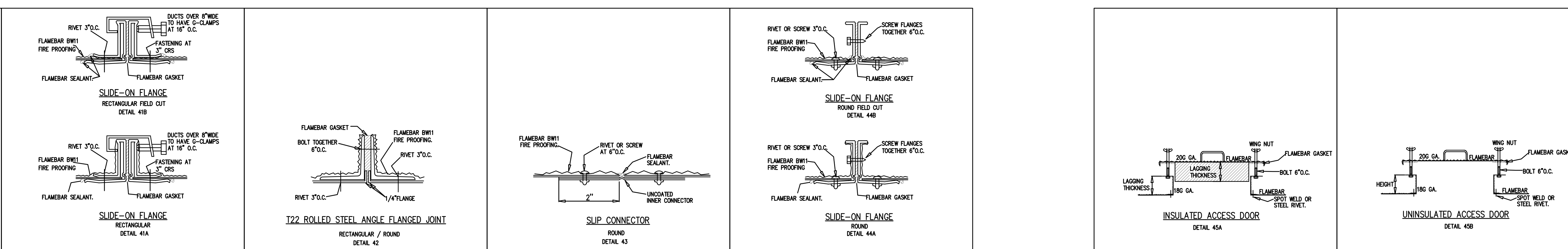
SUBDUCT DETAILS



HANGER DETAILS



CONNECTION DETAILS



ACCESS DOOR DETAILS