1 Information to be provided

1.1 The name of metal building manufacturer is to be submitted with the bid.

1.2 Metal building manufacturer’s proof of AISC Certification Category MB is to be submitted with the Materials and Subcontractor Questionnaire.

1.3 Contractor’s Certificate certifying that the Contractor complies with specified requirements and is a manufacturer’s currently authorized dealer of the system to be furnished shall be submitted with the Materials and Subcontractor Questionnaire.

1.4 Letter of Design Certification shall be submitted with the shop drawings. Letter of Design Certification shall include:
- Signature of Registered Professional Engineer licensed in the State of Indiana
- Building dimensions
- Design criteria
- Governing building codes including year
- Procedures used
- Design dead, live, snow, seismic, collateral, wind, and concentrated loads; load combinations; methods of load application; and load path.

2 Design Criteria

2.1 A minimum collateral load of 10 PSF shall be applied to the entire structure to account for the weight of additional materials, systems, and/or equipment.

2.1.1 Collateral load shall not be included when considering load combination of (Dead + Wind Uplift)

2.1.2 Additional Collateral load shall be included in the roof design for mechanical rooms, laboratories, corridors, etc. or any other space that may experience hanging loads beyond the normal collateral dead load.

2.2 Additional framing considerations shall be made for anticipated concentrated loads

2.3 The live load deflection of roof elements shall not exceed the following where L is the span of the element considered:

2.3.1 Exposed structure (no ceilings) shall not exceed L/180

2.3.2 Supporting plaster ceilings shall not exceed L/360

2.3.3 Supporting other ceilings shall not exceed L/240

2.4 Lateral deflections, or drift, at the roof level in relation to the slab-on-grade shall be calculated based on a 50-year mean recurrence interval and shall not exceed the following:

2.4.1 H/125 for buildings with exterior metal panel walls,

2.4.2 H/500 for buildings with masonry or concrete exterior walls.

2.4.3 H/600 for masonry walls with steel stud backup walls

2.5 Maximum deflection for wall and roof panels under full dead and live and/or wind loads shall not exceed L/180.

2.6 Frost Wall: The building foundation shall include a continuous perimeter reinforced concrete frost wall which is founded at or below the minimum frost depth prescribed by the building code.

2.7 Minimum 18 gage steel to be used for steel stud backup walls of masonry/steel stud walls.

2.8 Minimum slope for a mechanically seamed metal roof shall be 1:12.

2.9 Minimum slope for a manual snap-in seamed roof shall be 3:12.

2.10 Aluminum roofing and siding shall not be acceptable unless approved by Owner.

2.11 All non-standard flashing and trim details shall be designed and detailed by Architect or Engineer of Record.

3 Wall & Roof Finish

3.1 All exterior metal wall panels and visible roof panels shall have a two-Coat Fluoropolymer AAMA 621 finish containing not less than 70 percent PVDF resin by weight in color coat such as Kynar200 or Hylar5000 finish. A Galvalume finish shall be acceptable on low slope, non-visible roofs.

3.2 Insulation: In addition to the “hourglass” installation of roof and wall insulation, the Architect of Record shall provide details for additional insulation as required to meet building code. Methods including thermal blocks and proprietary systems (e.g. Simple Saver, Sky-Web Systems, etc.) shall be reviewed by Owner.