

PLEASE READ: These instructions are for your use during the process of requesting a Retrofit Systems Estimate from McElroy's Technical Services Group. It is important to understand before we can begin estimating a project, that the existing building roof's structural support system will virtually dictate the design and layout of the retrofit framing system. Because of this and as explained in our Designer's Guide, the spacing of our vertical framing members and our base member type and placement is governed by the existing roof's structural framework design.

AVAILABLE FORMS: The following is a form that is available to assist you communicating the structural framework information of the existing building. This form is required to obtain an estimate.

Request for Information (RFI) – This form is a simple two-page document that allows the customer to select the specific existing roof system type insofar as how it was constructed and what components make up the structural framework. The first page specifies eight different types of roof support systems and requests specific data about each. The second page addresses the existing roof's perimeter and edge construction and requests specific dimensions that are needed to design our framing to fit the actual jobsite conditions.

Quote Request Form – This form is McElroy's standard document for requesting quotations on engineered system projects. It is self-explanatory, but your attention should be directed to the "Materials" section. For a retrofit project, please check the box to the left of "Sub Structure" and write Retrofit System in the "Product Description" column.

WHAT INFORMATION WE NEED: During your inspection of the existing roof and building, please identify the following and provide to McElroy to obtain an accurate and competitive estimate.

1. Specifically, what components make up the construction of the existing roof system?

This answer can be a multiple of system types if preset in the existing building, but what is most important, is our knowing about the joists, the primary support members and the decking. Please describe the following:

- A. Joist type (bar joist, steel beam, dimensional lumber, heavy-timber, concrete, etc.)
- B. The joist spacing regardless of type (dimensions across the joists)
- C. The joist's span direction in relationship to the exterior building walls
- D. How the joist are supported at each end (beams, load-bearing walls, etc.)
- E. The dimension(s) from joist support beams/walls to the other joist supports
- F. The decking type (ribbed metal, structural wood/plywood, structural concrete, etc.)

2. What is the existing roof's geometry and roof edge construction?

This question addresses the physical shape and geometry of the existing roof as well as how the roof edges are constructed. Please describe the following:

- A. If the roof is not dead-flat, then describe any slope that exists
- B. If the roof is not one contiguous system, then describe any change in elevations for areas within its perimeter as well as locate interior firewalls/parapets that protrude through the roof (will require extending through the new roof)
- C. Locate any adjacent buildings on a roof plan sketch that are higher in elevation and are within 20 lineal feet from the roof that will be retrofitted. Provide the vertical dimensional distance between the two roofs
- D. Describe the construction of the existing roof edges, whether they are gravel stops or parapet walls. If parapet walls, determine if they are load bearing or non-load bearing. Provide the physical dimensions and other information that are requested on page two of the RFI form referenced above

3. Is there any Mechanical Equipment on the existing roof?

Locate existing rooftop equipment that our framing system will have to accommodate. Please provide the following:

- A. Locate and dimension all mechanical equipment (air-handlers, air-intakes, etc.) on a roof plan sketch. Dimensions needed include width, length, height and physical location from the existing roof edges.
- B. Provide weight of mechanical equipment if you plan to raise the equipment above the new metal roof (mounted on a roof curb) and tell us if you require us to provide support framing
- C. Provide the distance required above each air-handling unit for proper operation, if you plan to frame over the equipment

4. Other things that you can provide that will be helpful to us?

The more information we have about the existing roof and building will only ensure that we will be able to provide you with the most competitive estimate possible. Please provide the following:

- A. Provide multiple photographs from on top of the existing roof as well as around the building taken from ground level. These can be emailed in JPEG format.
- B. If available, provide copies of "As Built" drawings that would describe the structural framework, details of construction and mechanical equipment locations
- C. Describe the geographical exposure of the building, meaning where is the building located in relationship to other buildings and its surroundings. In addition, provide the occupancy type of the building (offices, school, church, manufacturing, warehouse, etc.). These two design elements will control certain parameters in the engineering of the entire roof system.
- D. If formal bid documents (drawings and specifications) have not been prepared, provide a detailed roof plan sketch with roof perimeter dimensions, joist span directions and spacing, location of mechanical equipment, interior parapets/firewalls and roof elevation changes as well as cross-sectional details that describe the construction of perimeter parapets and/or gravel stops.

OTHER THINGS THAT YOU SHOULD REVIEW OR PERFORM DURING YOUR ROOF INSPECTION

Refer to Chapter 3 of our Designer's Guide for more detail on the following items that we highly recommended you to consider:

1. Perform anchor pullout tests to determine the type of anchorage system for securing the retrofit framing to the existing roof (note that we do not provide framing anchors or the design thereof)
2. Determine if the existing roof assembly and its substrate is adequate (compression resistance) to receive the positive downward acting loads that the retrofit framing system will impose onto the existing roof
3. Determine if there are any stormwater regulations that will control the geometry of the new roof plan and layout.
4. Determine if any existing roof gravel or ballast will be removed and disposed of to help compensate for the added weight of the retrofit roof system.

REQUESTING AN ESTIMATE: Once the information has been collected about the existing building and its roof system as described above, contact your McElroy Sales Representative to assist you in preparing the necessary forms. As note above, the standard McElroy Quotation Request Form and the Retrofit Systems Request for Information (RFI) will need to be filled out and sent with the available bid documents to the Technical Services Department at the Bossier City offices.

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