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REQUEST FOR INFORMATION	DATE: May 02, 2016	NO.: RFI-056
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To: Cannon Design

Attn: Kelvin Patel

From: Paric Corporation

Requested By: Devin Gates

Project Name: Webster University Interdisciplinary Science Building Project No.: 15051

Subject: Reducing size of fire pump feeders.

Response Required By: May 09, 2016

Drawing / Spec Reference:

Information Requested:

Guarantee would like to propose reducing the size of the fire pump feeders. to both the normal and emergency sides of the fire pump controller, remove the 400A disconnect switch and reduce the circuit breaker size at the generator.

The fire pump is shown as being 40HP at 480v/3P and operates at 52 FLA. The feeder schedule on sheet E0501 indicates 400 amp feeds (2 sets of 3#3/0) to both sides of the controller. Per NEC 430.22 and 695.6.C.2, the conductors feeding a single motor fire pump are only required to be 125% of the motor's full-load current rating, which means the pump can be fed with 65 amps feeds (3#6). Is it acceptable to reduce the size of these conductors?

According to 695.3.B.1, the generator shall be sized to have the capacity of the normal starting and running load of the motor. Therefore, the 400A circuit breaker for the fire pump can be sized to 70amps. Is it acceptable to down size the breaker to 70A on the generator?

According to 695.3.1, a fire pump shall be permitted to be supplied from a connection ahead of and not within the same cabinet, enclosure or vertical section as the service disconnect. The tap ahead of the main complies with section 230.82. Therefore the 400A disconnect is not required. A disconnect is permitted, if it is sized for the locked rotor amp of the fire pump and is lockable in the closed position and meets section 695.4.B.2. Is it acceptable to remove the 400A disconnect switch that is not required?

Response: The conductors may be reduced to (3)#4 per the feeder schedule code number 6 on sheet E0501. The circuit breaker in the generator may be down sized to 70A. The 400A disconnect switch may be removed. Please note that the fire pump is assumed to be 40hp from the fire protection system basis of design, final sizing shall be based on actual fire pump shop drawing submittals.

Answered By: Bill Shaw

Date: 05/05/16



ARCHITECT'S RESPONSE:

This information is provided as an interpretation of the Contract Documents for implementation. It is not an authorization for change to the Contract Sum or Contract Time. If this information results in a claim for a change to the Contract, the Contractor shall notify the [Construction Manager][Architect] of a change through the change process.

Answered By: _____

Date: _____