



## Structural Inspection

September 9, 2013

For: Mr. David Champagne  
124 Kilgore Court  
Slidell, LA 70461

Re: La Mason Charles  
3801 St. Charles Ave., Unit #301  
New Orleans, La.

### Construction:

5 Story, Red Iron framing with concrete decking.

### Scope:

This inspection is limited to a visual inspection of the structure of the building,

### History:

Mr. Champagne contacted Dammon Engineering to perform a structural analysis of the existing structure so that a determination could be made as to allow additional A/C ductwork to pass through a structural wall in a condo on the 3<sup>rd</sup> floor, unit #301.

### Findings:

Upon inspection, the structure utilizes 10" Red Iron C-Channel joist supporting a light weight concrete floor. These 10" Red Iron C-Channels terminate into back-to-back Red Iron Channels and are supported by a 4" Red Iron stud wall. Each 10" Red Iron C-Channel terminates directly above a 4" Red Iron stud except where a doorway has been constructed. A door header has been installed to re-distribute the loads from 2ea 10" Red Iron C-Channel joists to King studs at the outside edge of the doorway. A single Cripple stud, nailing stud, has been installed to support sheetrock above the doorway, this Cripple stud is not structural. There are only 2 pieces of Red Iron installed as blocking devices in the middle of the room in front of the cantilevered patio.

### Conclusion:

There are two options available to run additional A/C ductwork through the structural wall.

Option #1: Replace the 2x4 wood support system for the fur down above the doorway with a 2x2 wood support system over the door frame. Next is to re-support the single Cripple stud at the top of the sheetrock with a top channel extended between the King studs. This would open a cavity measuring

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Inspections are made under normal weather conditions, and are not opinions of the conditions of the property and/or structure which may exist under unusual weather conditions, such as, but not limited to floods, heavy rains or snows, high winds, temperature extremes, or any act of God. Specific hazardous wastes, toxic substances, toxic mold, air and water quality, communicable diseases, asbestos, soil, environmental, radon, carbon monoxide, formaldehyde, building code and termite conditions are not included in this report unless otherwise stipulated.

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approximately 6.5" x 38". Using a 1" thick duct board would allow for an open airway of 4.5"x36", 162 in<sup>2</sup>. This opening would allow for an approximate air flow of 850cfm @ 1000 fpm or 525cfm @ 600 fpm.

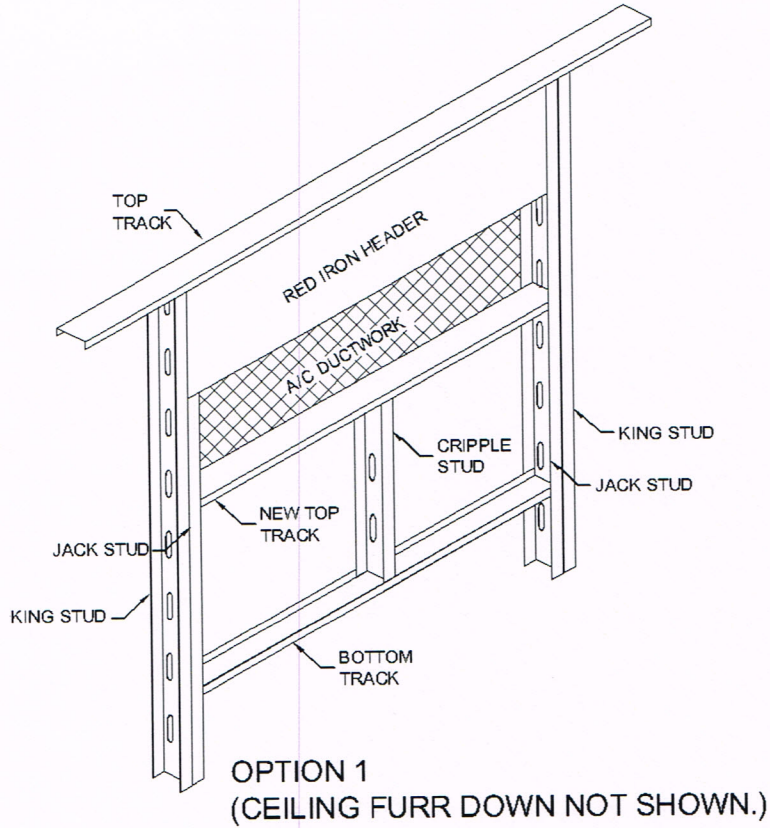
Option #2 is to remove the C-Channel between the 2ea C-Channel floor joists to create a cavity of approximately 9.5"x23". Ensure metal clips remain intact to keep the 10" C-Channel joists from racking. Using a 1" thick duct board would allow for an open airway of 7.5"x21", 157.5 in<sup>2</sup>. This opening would provide a similar air flow as Option #1.

Note: The placement of the Red Iron blocking is due to the proximity of the cantilevered patio. The blocking devices can be relocated one section closer to the exterior wall but must be placed in the same location and an additional blocking device must be installed in the section away from the exterior wall. These blocking devices must be welded in a manner similar to the original installation.

Recommendation:  
Option 1 would not alter the structure and would cost less money to install. Option 1 is preferred. Option 2 is a viable solution and will not affect the structural integrity of the building.

Sincerely,

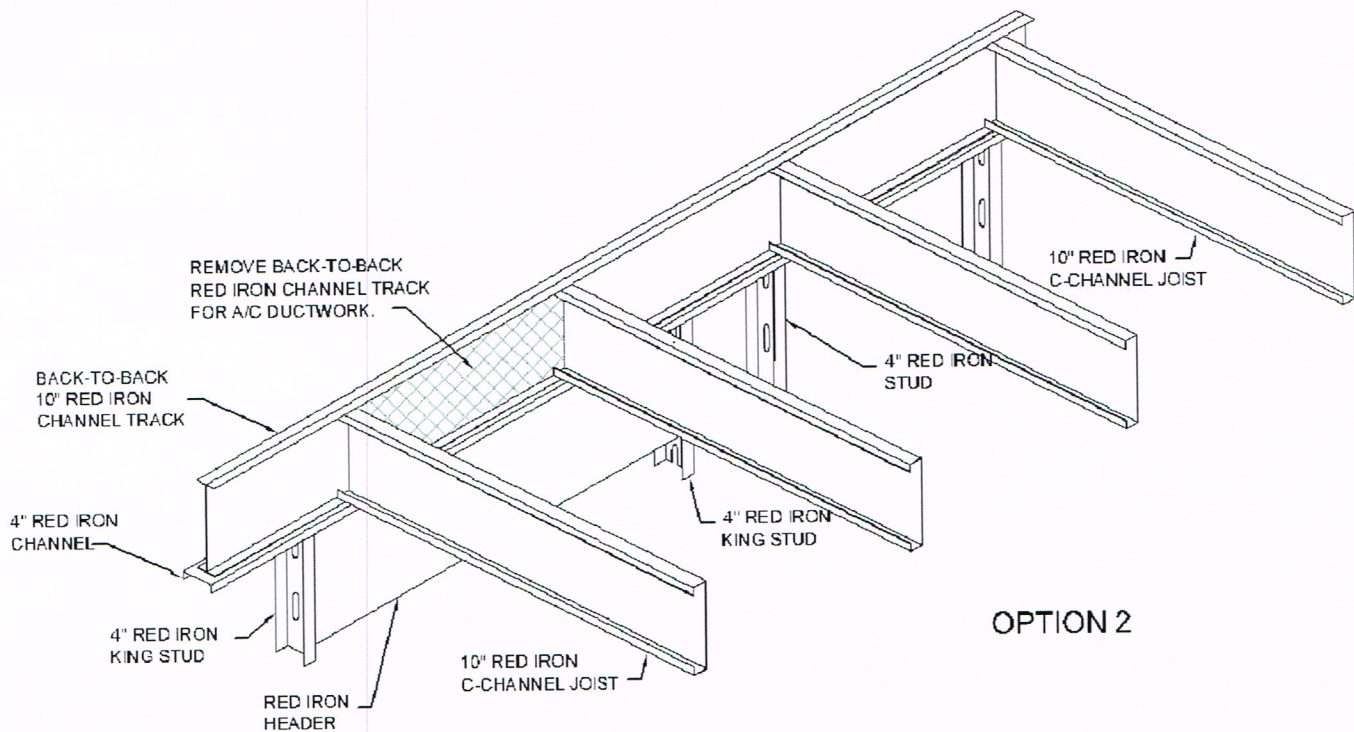
Emmett G. (Pete) Dammon, P.E.



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