



APPLIED RESEARCH BUILDING

DATE: **02/14/22-02/20/22**

PHASE: **Project Overview**



Facing North View



Facing South View

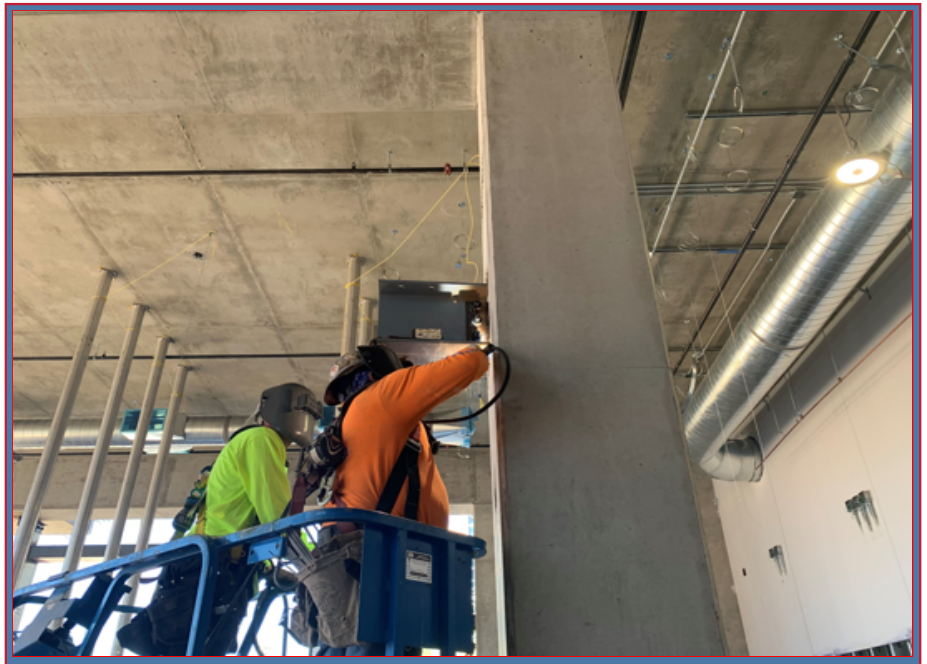


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ARB Design Build Team

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DATE: 02/14/22-02/20/22

PHASE: Structural



Welding Large Scale Testing Lab Crane Steel



Large Scale Testing Lab Crane Steel Beam Connection

Fun Fact:

The large scale testing lab steel beam must have a moment weld. A moment connection/weld is a rigid connection to stop any rotation and must be welded from the top and bottom of the flange to transmit full strength to the column.

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PHASE: Interior Finish



Level-1 Electrical Room Sheeted and taped



Level-1 Wall Vapor Barrier

Fun Fact:

The electrical rooms contain 2-hour fire rated walls. In order to achieve that rating 2 layers of drywall must be installed, as each layer is one hour fire rated.

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PHASE: Interior Framing



Level-2 Interior Walls Framing



Level-2 Framing Track

Fun Fact:

Framers install the track for the MEP trades to layout their necessary openings to be framed as shown in the bottom picture. Because of the exposed flooring in this building, the trades write their layout on the bottom track where they need it with elevation and size.



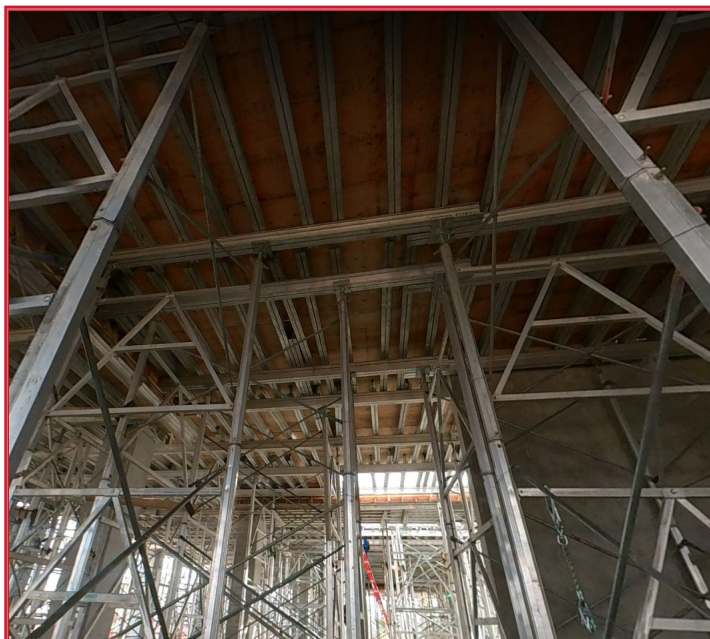
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DATE: 02/14/22-02/20/22

PHASE: Concrete



Level 4 South Slab Decking



Level 4 North Slab Decking

Fun Fact:

The shoring system used at ARB is called Atlas AI-Speed. It is a group of A frame towers, where each tower contains 4 sides to support the decking process and concrete pour until the concrete is cured to the desired strength.



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PHASE: Form-Work



Stringer curved beam edge



Level 4 Decking

Fun Fact:

After the shoring system is set in place, the stringers (large aluminum I beam with curved edges) are placed on the frame. Then the I beams (usually smaller in size) sit on top of the stringers to support the plywood sheeting.



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DATE: **02/14/22-02/20/22**

PHASE: **Mechanical, Electrical & Plumbing**



Overhead Mechanical, Electrical & Plumbing Utilities



Overhead Utilities

Fun Fact:

Plumbing and mechanical duct require insulation. Usually the supply mechanical duct will need to be insulated to maintain temperature and any hot water running in pipes will need to be insulated to maintain temperature and/or to protect user from hot surface.



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PHASE: **What's next?!?**



- **Structural Steel.**
- **Level 4 Shoring.**
- **Level 4 Concrete Pour.**
- **Architectural Building Mock up.**
- **Level 2 Re-shoring.**
- **Level 1 In wall electrical and plumbing.**
- **Level 4 Mechanical Room Steel**
- **Main Equipment Pads.**



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