



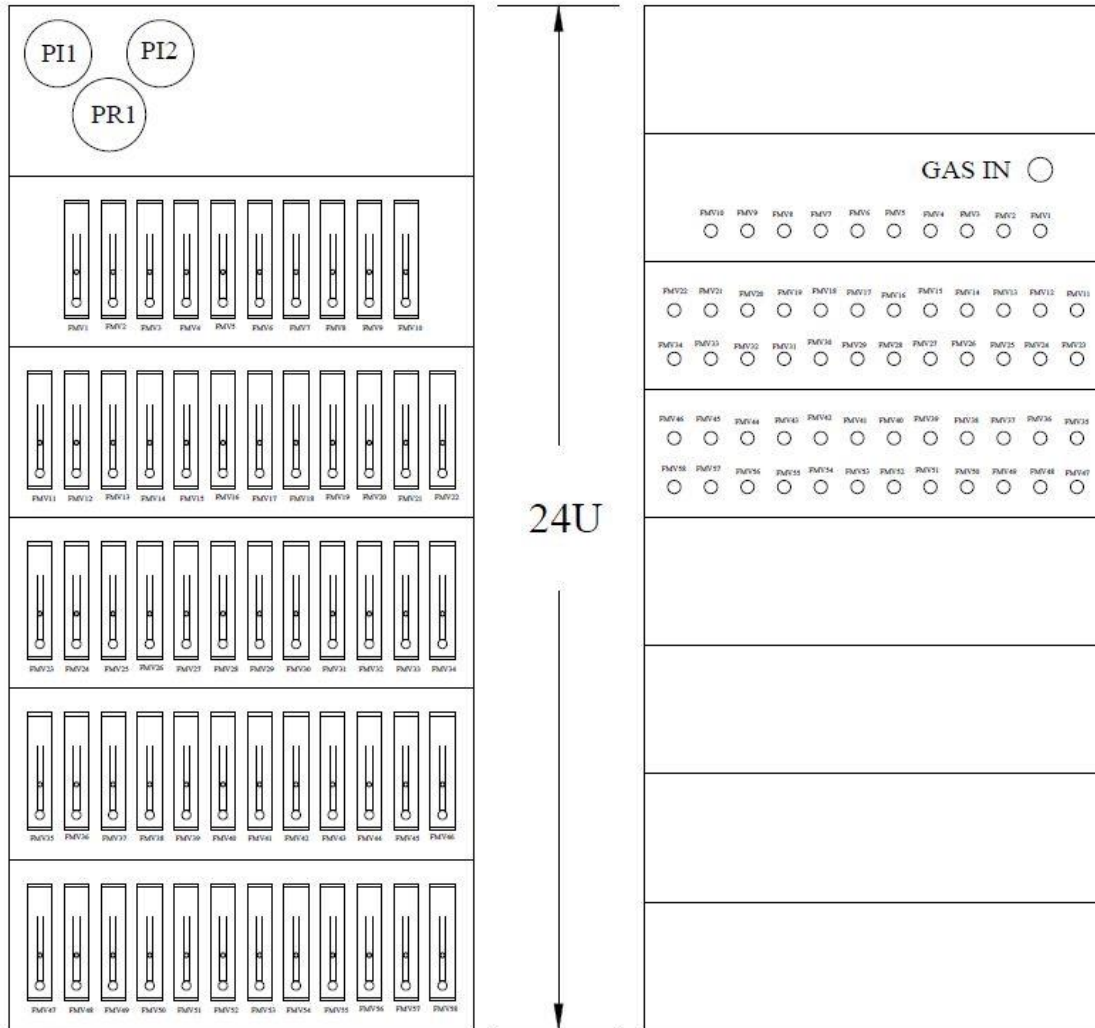
# Hall A GEM Gas Distribution Rack

George Jacobs  
Detector Support Group  
09/04/2019

# Hall A GEM Gas Distribution System Details

- Single rack layout
  - Front panel location for all pressure and flow controls
  - Rear panel location for all gas line connections
  - Layout minimizes tubing and cable lengths (minimizes cost)
- Provides 58 total gas supply channels
  - 10 high flow (100-1000 sccm) channels
  - 48 standard flow (50-500 sccm) channels
  - All 58 channels can be routed as desired

# GEM Gas Distro Rack Exterior View

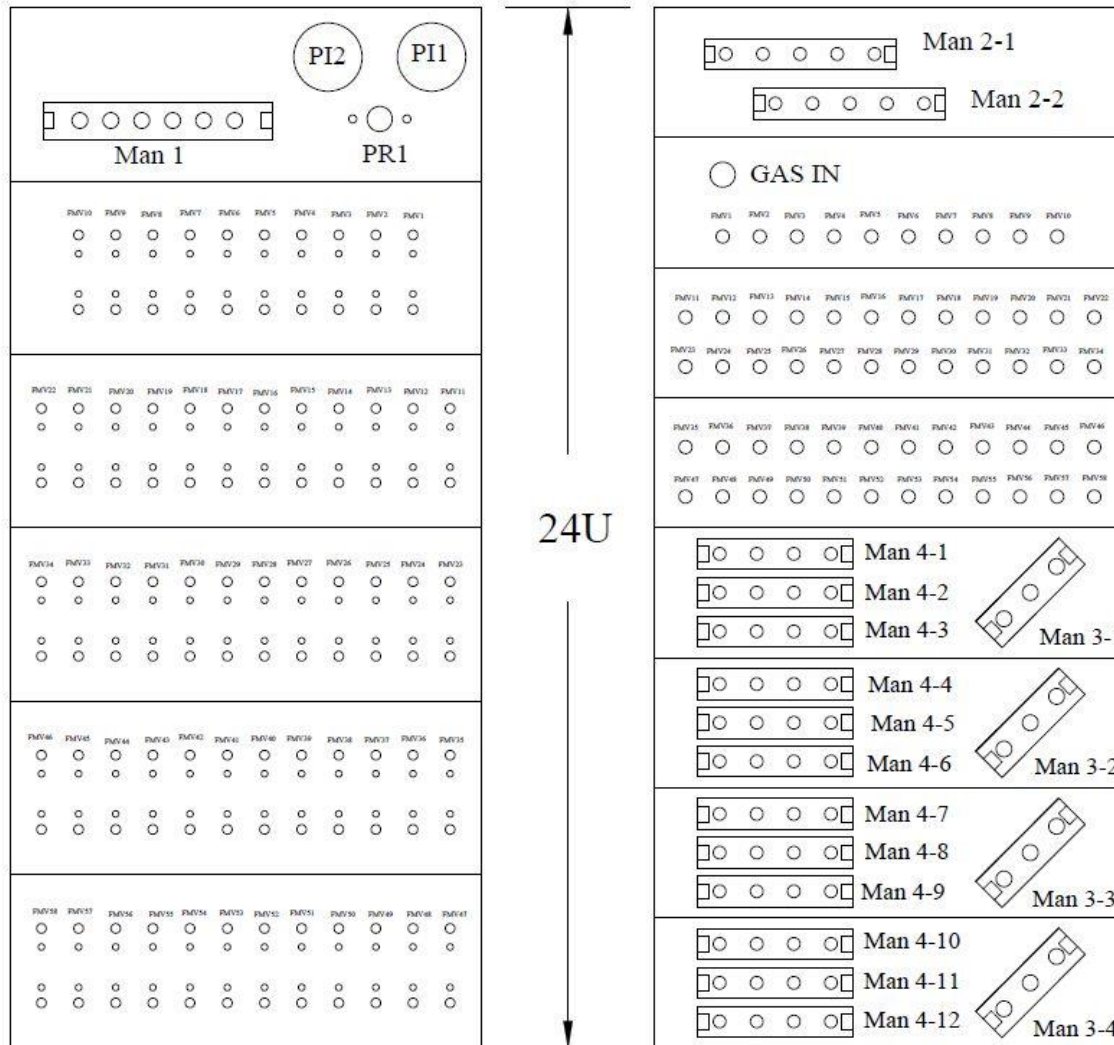


Rack Front Panel  
Exterior View

Rack Back Panel  
Exterior View

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# GEM Gas Distro Rack Internal View

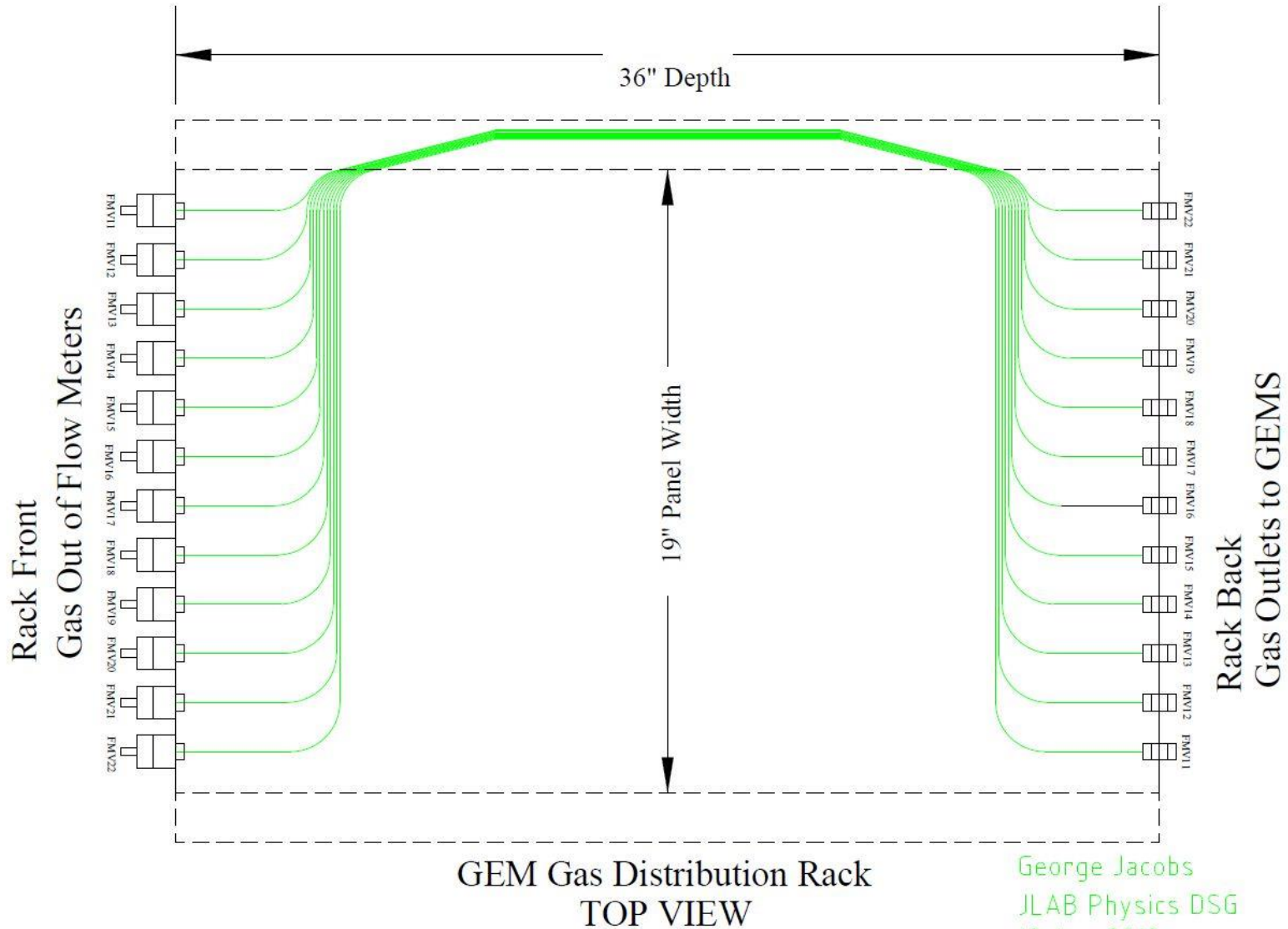


Rack Front Panel  
Inside Rear View

Rack Back Panel  
Inside Rear View

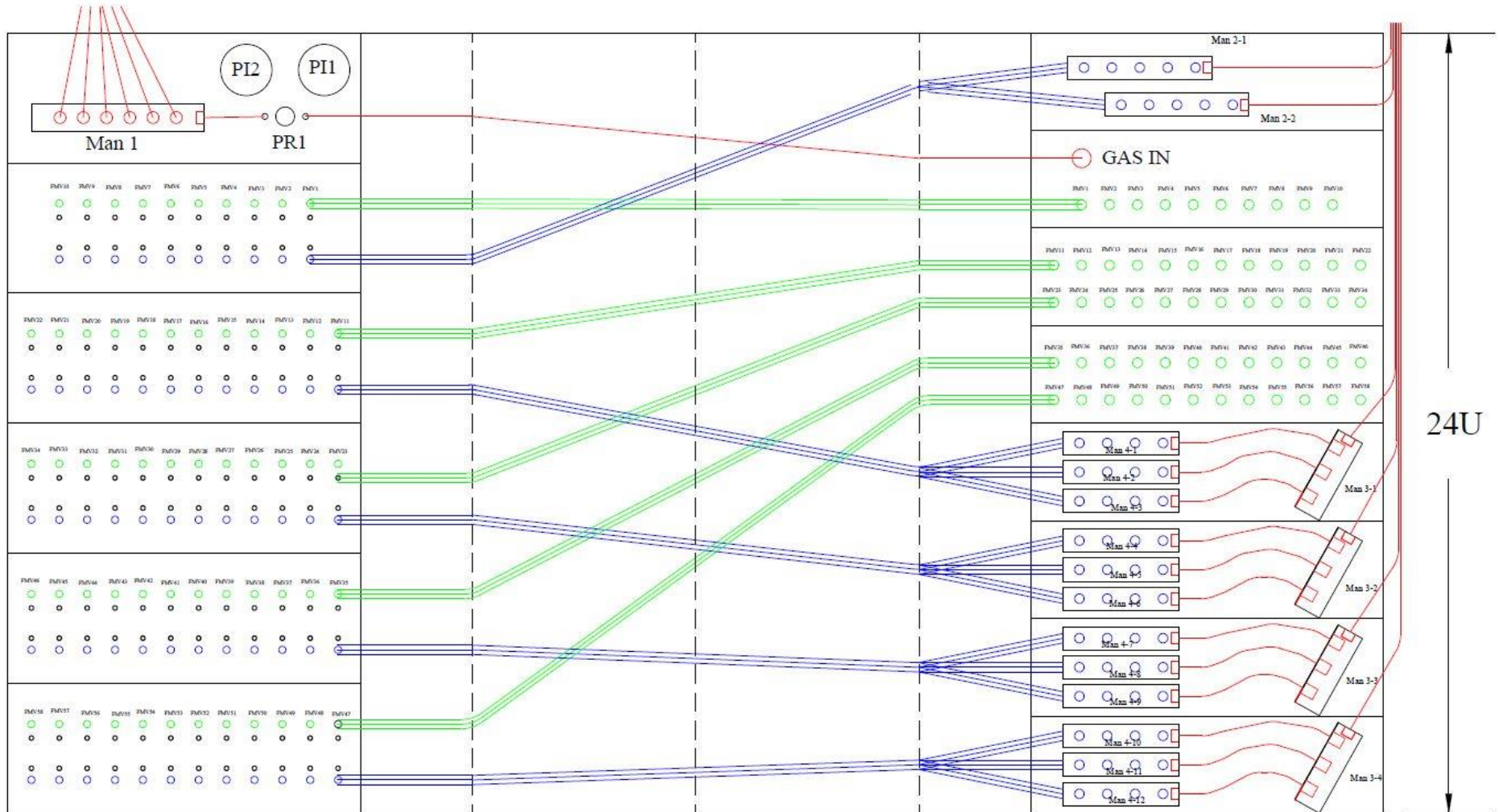
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# GEM Gas Distro Rack Internal Tubing Runs



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# GEM Gas Distro Rack Internals Unfolded



Rack Front Panel  
Inside Rear View

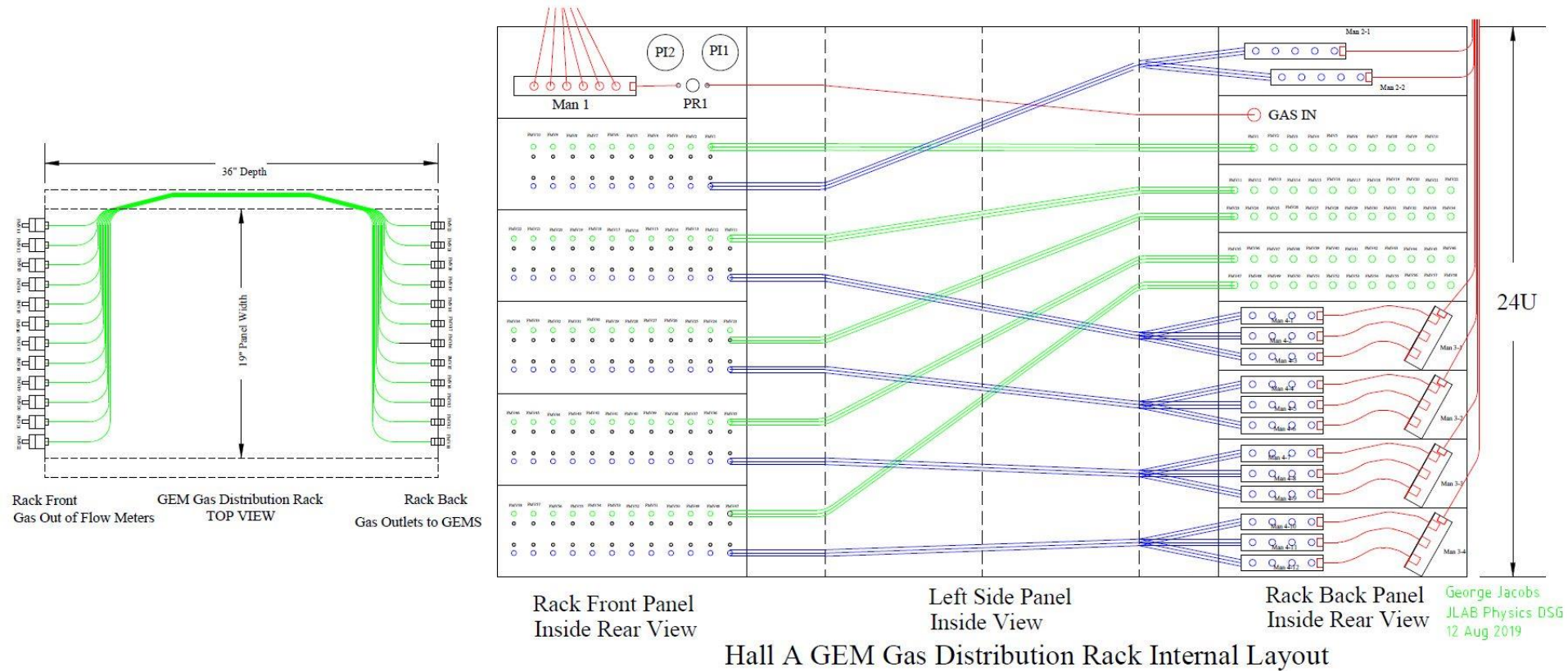
Left Side Panel  
Inside View

Rack Back Panel  
Inside Rear View

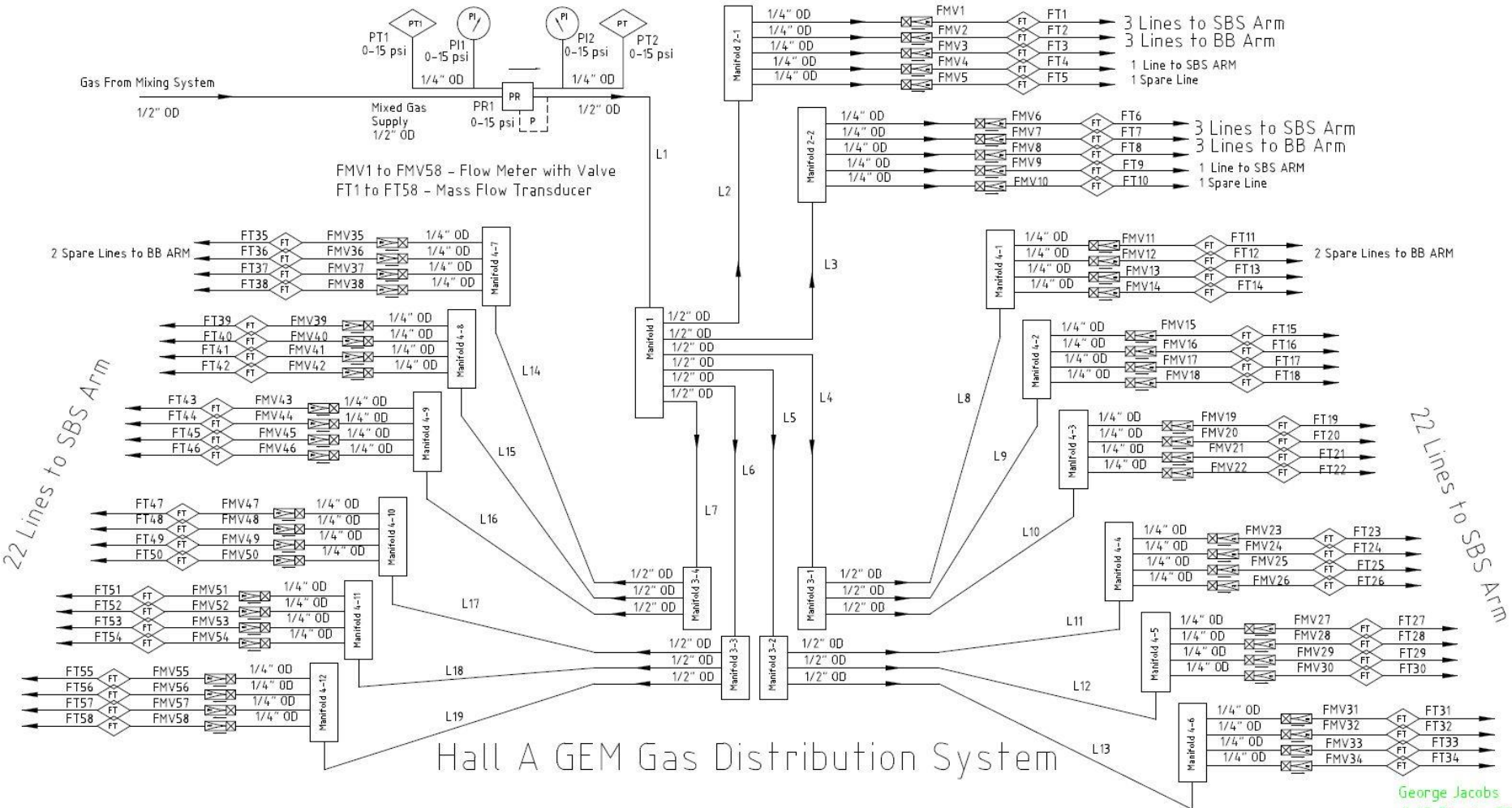
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Hall A GEM Gas Distribution Rack Internal Layout

# GEM Gas Distro Rack Interior Plumbing



# GEM Gas Distro System P&I Diagram



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31 July 2019



# Conclusion

- Design completed
- Awaiting system owner's and Design Authority's approval