



36th Annual State Construction Conference

March 2nd, 2017

WELCOME



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SCO NEWS & LATEST INSPECTION DISCOVERIES



Office News

❑ State Construction Manual:

- ❑ <http://ncadmin.nc.gov/businesses/construction/construction-manual>
- ❑ Hyperlinked table of content
- ❑ Searchable content



❑ Current Workload:

- ❑ Near capacity with current staff
- ❑ Bad news: 4 retired in the past 3 months & possible 4 more between now and July
- ❑ Good news: In process of adding staff: to replace the retirees and add 5 new bond positions (3 engineers, 1 architect and 1 admin assistant)
- ❑ Good news: Early stages in the implementation of electronic plan reviews and construction administration using the “BlueBeam” system

❑ Limited Electronic Plan Review:

❑ Chapter 511 of SCO Manual

❑ PDF format only



❑ Email to : scoreview@doa.nc.gov

❑ We cannot access Private Servers or Cloud Servers

❑ Plan Reviews are First-in First-out

- ❑ No partial submittals. Replacement sets will restart the clock
- ❑ Submit 2 sets if an expedited review is desired
- ❑ Obtain the **State ID number** from Owners before submitting for review (used to be SCO ID #)





❑ INTERSCOPE+ :

- ❑ Owners Designers and Contractors
- ❑ Need log-on account
- ❑ Full users manuals and numerous training guides
- ❑ Interscope+ presentation in afternoon session
- ❑ Future integration with “BlueBeam” system



❑ Fire Alarm Systems

- ❑ Current edition in use is NFPA 72-2013 (adopted by the NC Fire Code)
- ❑ The use of wireless devices and VOIP communication is allowed
- ❑ Fire Alarm Guidelines revisions will be available soon to reflect major changes

❑ Security locks in the path of egress

- ❑ Emergency backup

- ❑ Fail open except for institutions & other situations

- ❑ To be shown in the life Safety Plan & provide sequence of operation

- ❑ No exemption from plan review



❑ Seals on Construction Documents:

- ❑ Review sets: Seals only (including PCO's, VE's or Addendums)
- ❑ Bid Sets or Construction Sets: Seals, signatures & Date
- ❑ As build sets: Seals signatures on Engineering documents and seals on Architectural documents
- ❑ Third Party documents: Seals & signatures if intrinsic part of contract used to obtain bids and or for pricing (Kitchen, AV system), see SCO Manual chapter 501 B(4) for details.



□ Energy Legislations & LCCA's:

□ Public Buildings \geq 20,000 sqft located on state owned or leased land & regardless of funding source

□ **HB 628**: § 143-135.37(a1): Net Savings Required Submitted at Advance Planning Phase.

□ **Life-cycle cost analysis**: § 143-64.15. (Article 3B): Submitted at Schematic Design Phase

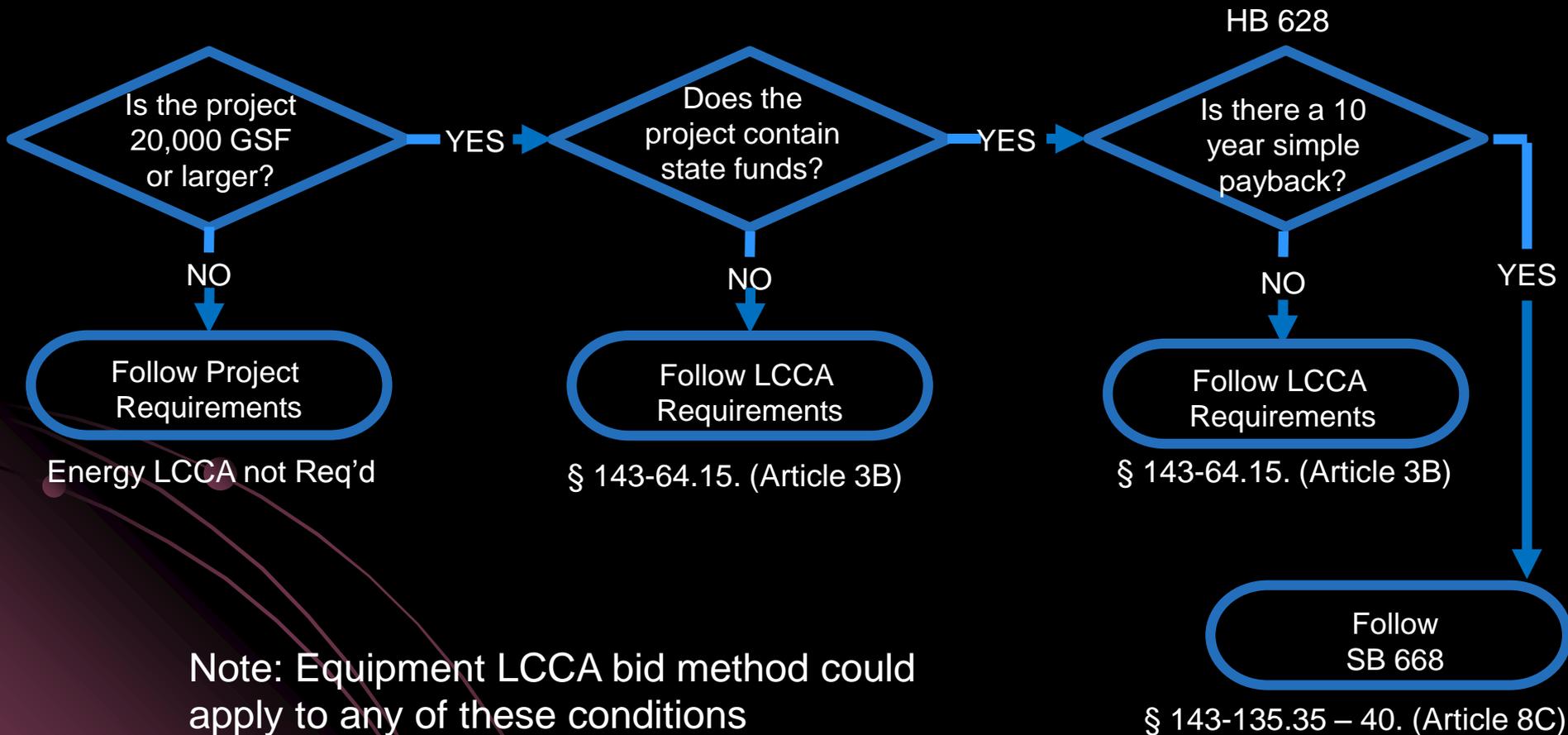
Or:

□ **SB 668**: § 143-135.35 – 40. (Article 8C). Performance Standards for Sustainable, Energy-Efficient Public Buildings, Submitted at Schematic Design Phase

In addition:

□ **LCCA Bid Method**: Large equipment Submitted at Construction Design Phase

Projects located on state owned or leased land (Regardless of funding type, public or private)



□ Height Restriction near Military Installations:

- § 143-151.75. Endorsement for proposed tall buildings or structures required. (HB 763 – 2015)
- Surrounding area that extend 5 miles beyond the boundary of a major military installation and 1/4 mile of a National Guard Facility
- Height of more than 200 ft measured from the top of foundation of any building or structure (ie. buildings, towers, windmills ...)
- Applies to all public or private (State, county or City, public or private)
- Require endorsement issued by SCO



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INSPECTION DISCOVERIES

Rubber bands as good as duct tape



Maybe it's a movie time alarm



No kidding!



Erasable wall thermostat?



I need a ceiling tile to finish my job



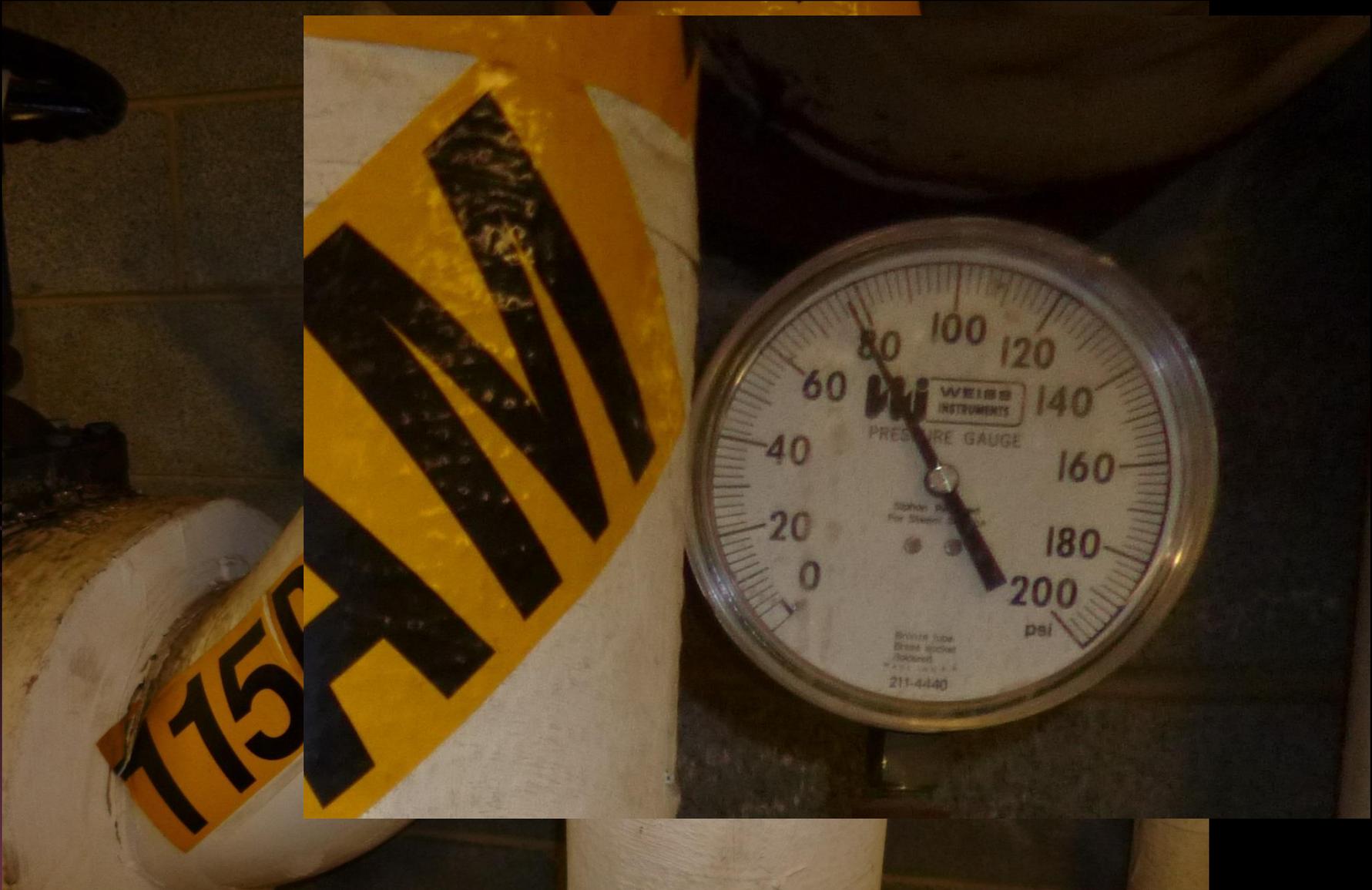
Always check instructions have been followed



At least no possible galvanic corrosion



Designed for 115 psi



Floor drain optional?



incidental spilling? where the
water will go?
**THIS IS AT ATTIC
MECHANICAL ROOM!**

The missing link



Poor planning is not an excuse



How many signs of a water leak should you need?



Fortunately the room has another door!



My contract didn't require conduits relocation



Installed to never needing replacement



Knuckle buster



Good thinking



Lost EXIT sign



My contract says Paint everything



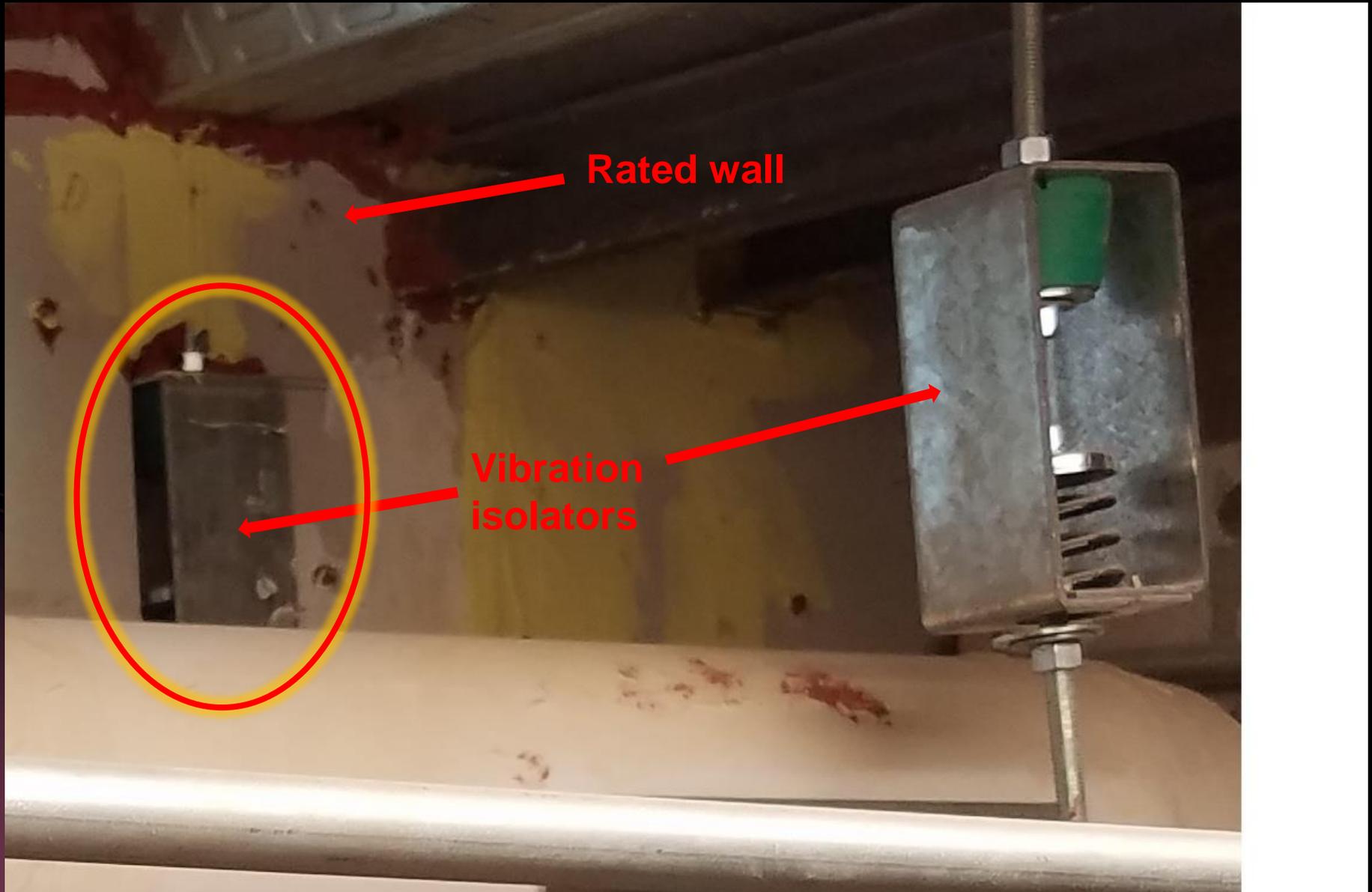
Don't let an IT guy loose on your building



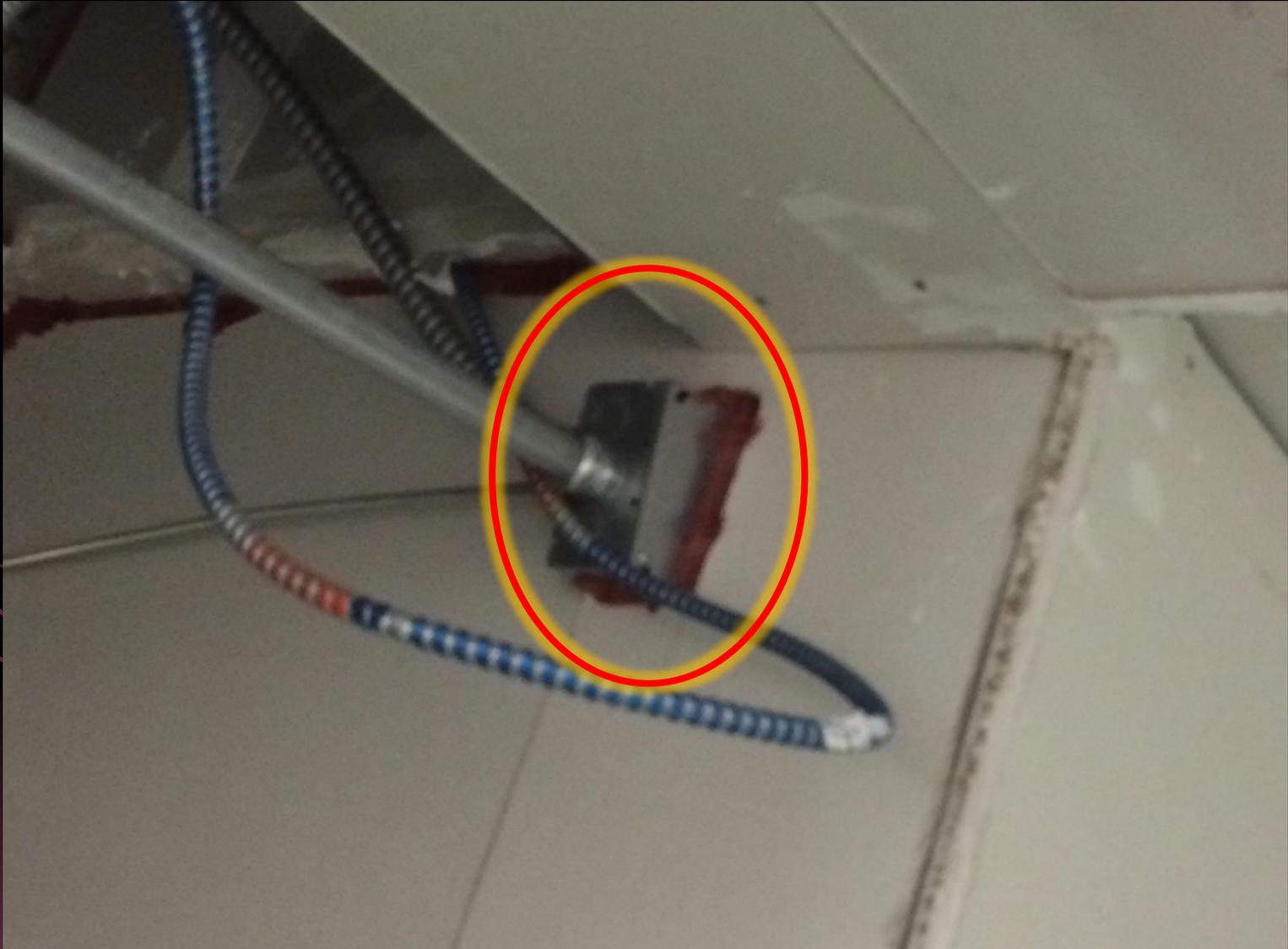
And now what?



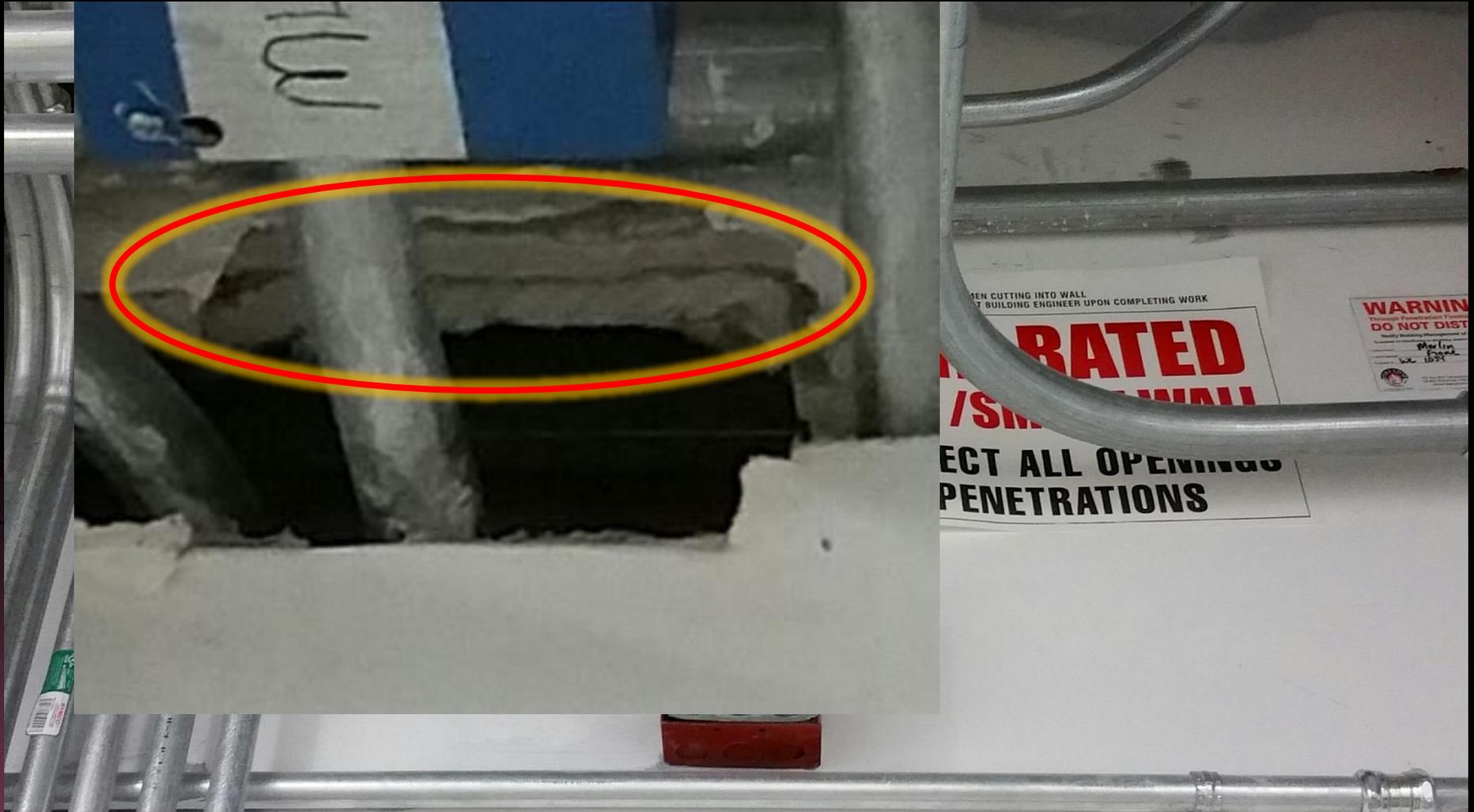
In rated wall?



It's called a Junction Box for a reason



It could be labelled wrong



It could not have been an electrician



Not convincing enough



Just a minor reduction in the Path of egress

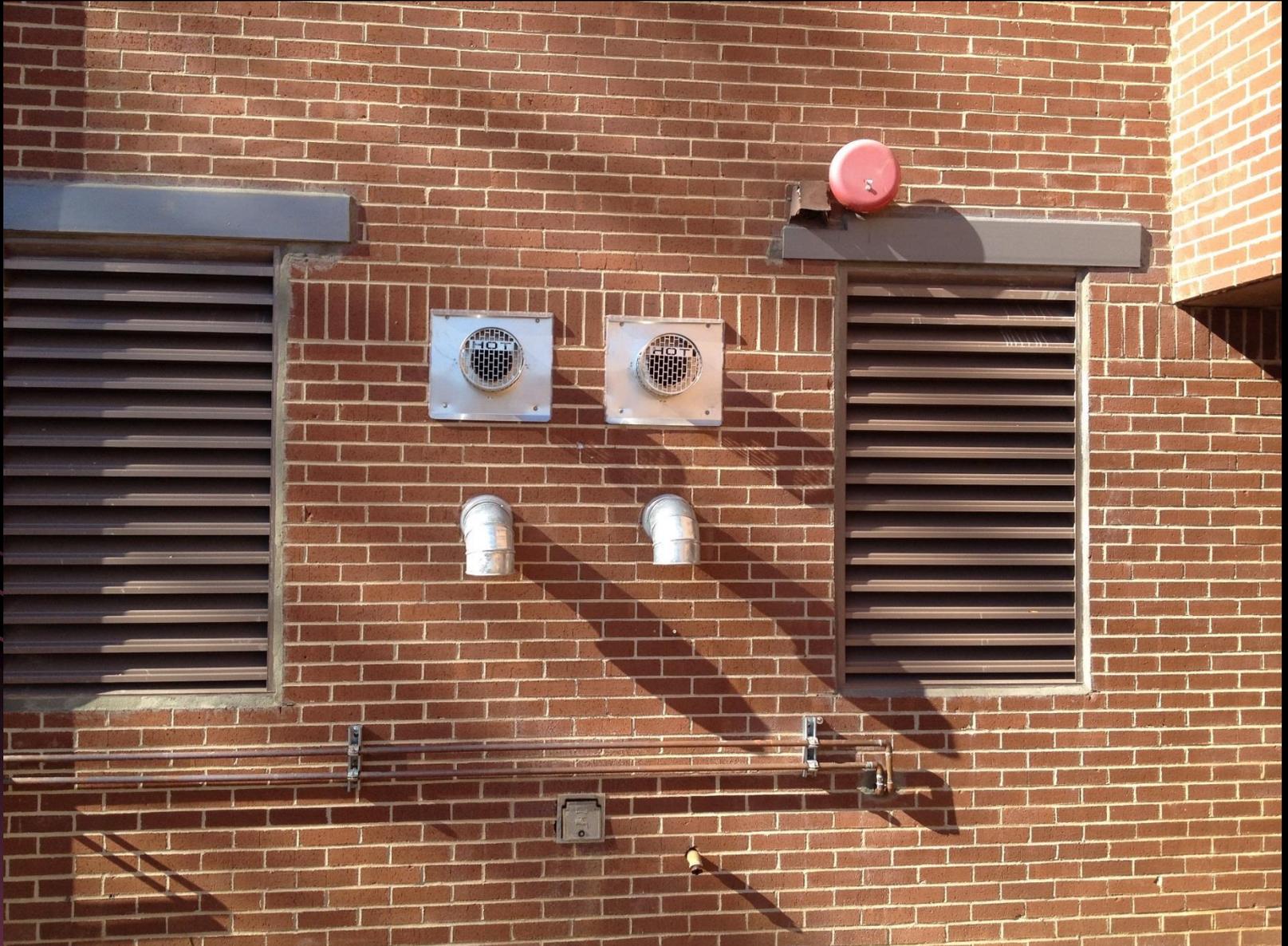


Minimizing roof penetration



SAFETY HAZARD: convenience electrical outlets mounted on brackets at the roof edge

Code says 10 feet apart, not within 10 Feet



The heater will protect it



Swim at your own risk



Gas vent and electric panels conundrum



No, that's wrong



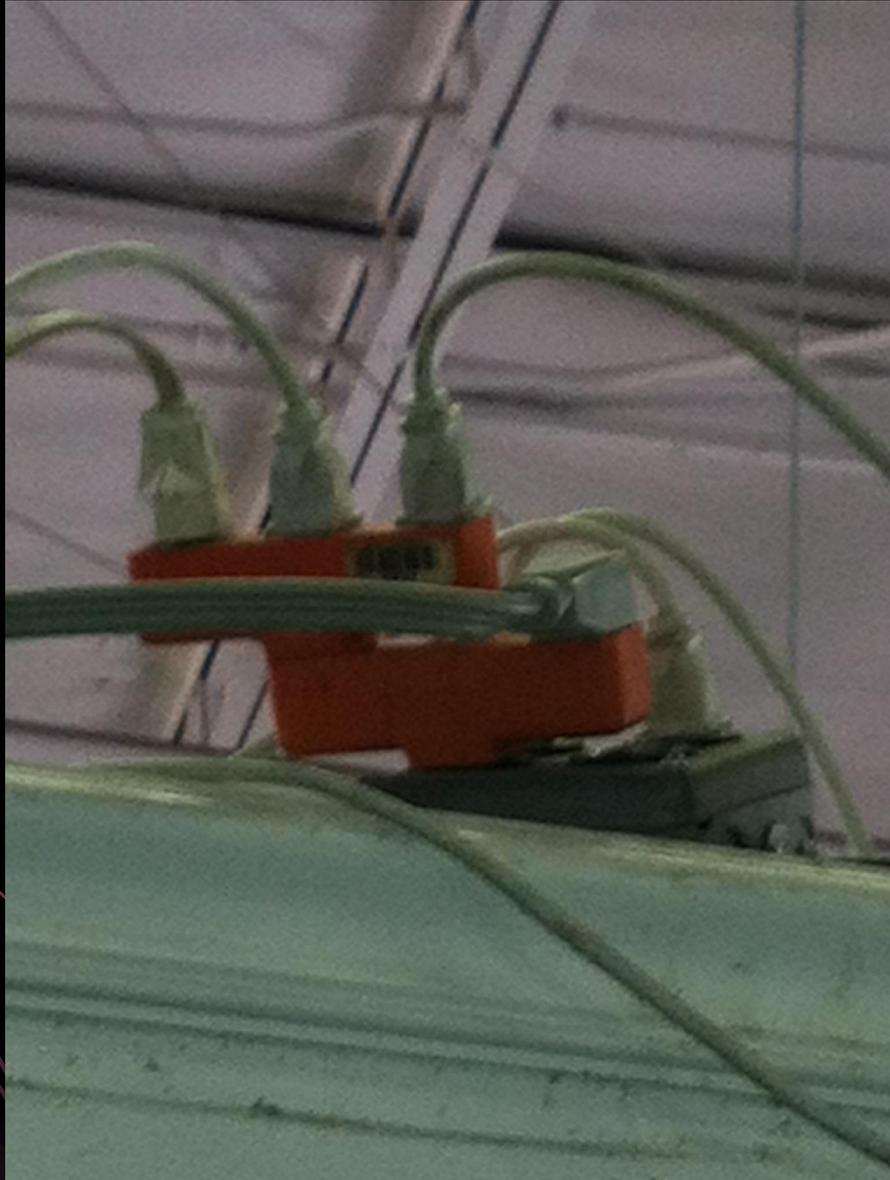
Measure twice cut once?



Missed one



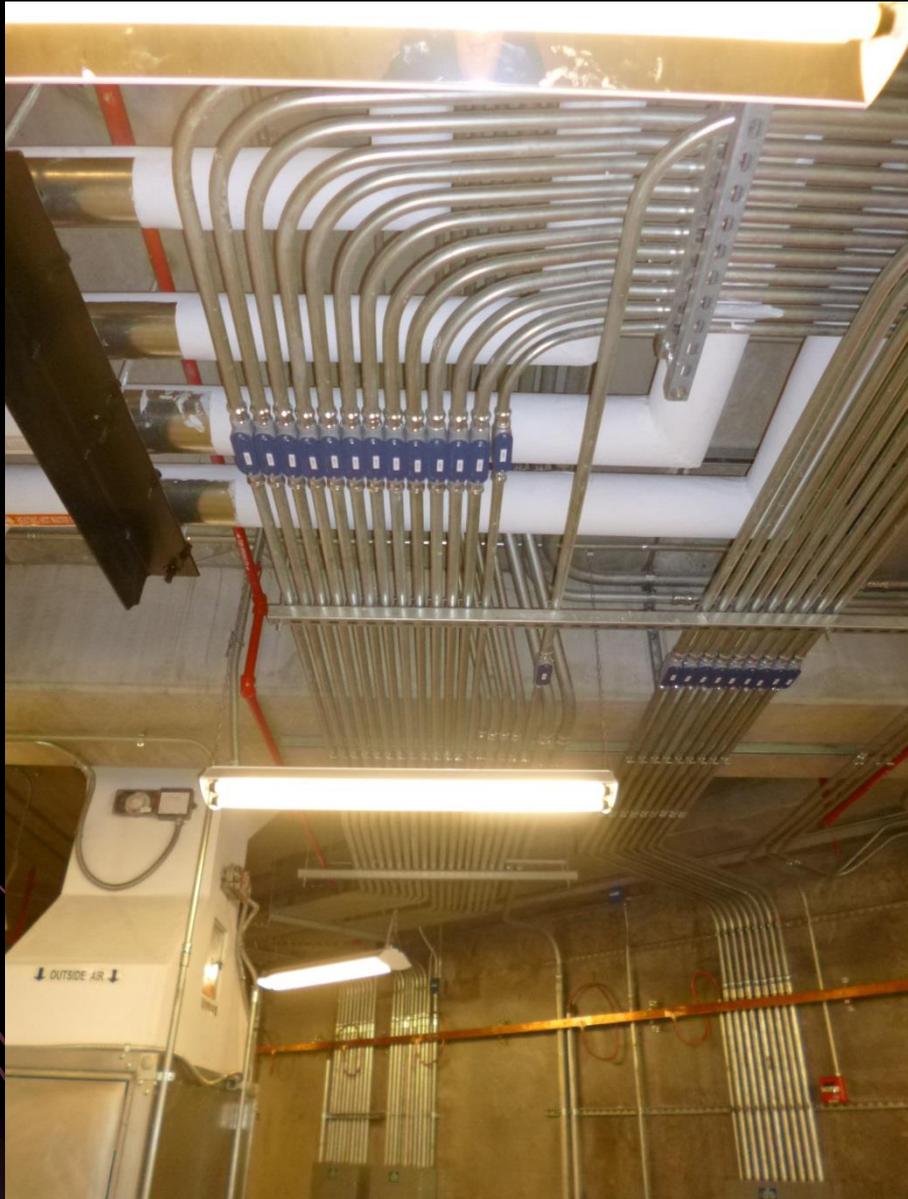
Things you may find above drop ceilings



Rare find



First class



This is how it's done!



Proper installation



proper pipe support on roof

Good design & coordination



VTR as it should be



Proper flashing and protection





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SCO 2017 Best Managed & Administered Construction Projects

NCDPS/Div of JJ – Multipurpose Home

Designer: Masters Gentry Architects

Contractor: Inmate Correction Program





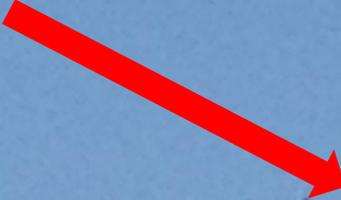
NCSPA/EnvivaBioMass

Designer: BRPH, Linwood, WA

Contractor: Enviva



SCO inspectors are on the top of the wood chip conveyor !!!



NCSU Reynolds Coliseum

Designer: Corley Redfoot Architects
Contractor: Danis Construction Company





ECU - Belk Residence Hall

Designer: Davis Kane Architects

Contractor: Barnhill Contracting Co.





UNCC – Ph. 14 Residence Hall

Designer: The FWA Group

Contractor: Rodgers Builders Inc





UNCG – Wellness Center

Designer: WalterRobbs

Contractors: JV Skanska USA - Rentenbach

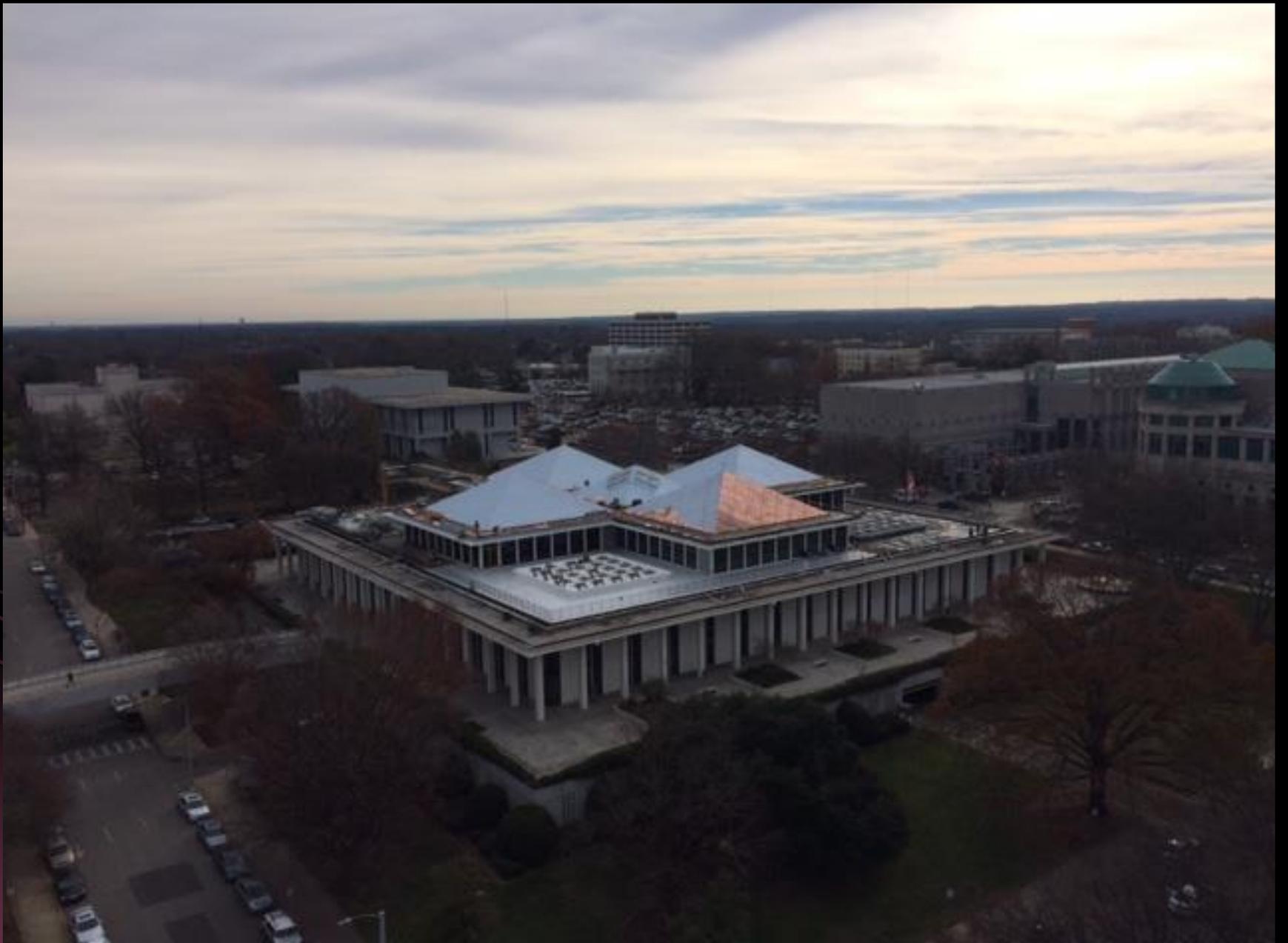




GA – Legislative Building Reroof

Designer: Raymond Engineering
Contractor: Owens Roofing Inc.







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Thank you!

Question? Latif.kaid@doa.nc.gov