

# **Inspections - Section 11**

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## **New Construction Case Study**



# The Job

Four Story Motel finished 12/98 - inspection 5/26/99



# Main Bldg. And Exercise Bldg.



# WINDOWS

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- No sealant on any window
- Sealant around A/C units “smeared” without backwrapping
- Significant water found at perimeters of most windows



# Detail on Windows



- Knife slides in between plastic and window frame
- Plastic wrapped on to frame and plaster applied on to the plastic
- The plane between the plastic and the window frame allows water to enter easily
- Note on lower photo that the plaster was blocking the weep holes by approximately 3/16"



# More Windows



Sill material cut away exposing insulation, fabric and leaving a hole allowing water to enter



A/C sleeves set to allow drainage to outside of wall. Sealant will fail



Plaster sloppy - lumps, plaster on aluminum frame



# The Last Window Slide

- See staining at jamb line at sill.
- This color indicates that the wood framing is adding sap to the staining
- Indicates water within the frame area of the exterior wall



# A/C Sleeves

- These A/C sleeves drain at each end through the bottom. The holes go from the face of the sleeve to 1" deep into the wall. There is no room to get backer rod and sealant into the joint back far enough to prevent the water from entering the wall.
- The backwrapping on this job is very rough. Lots of effort that accomplishes nothing.



# Main Bldg. And Exercise Bldg.



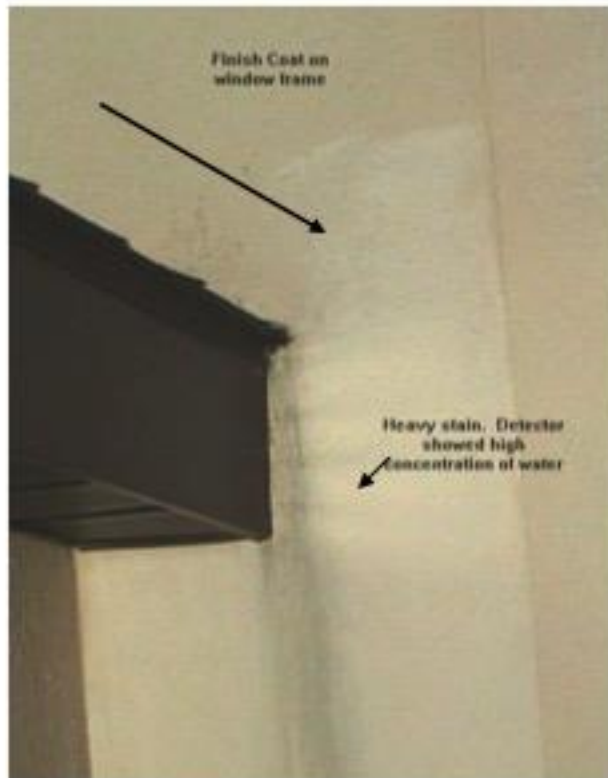
# KICKOUT DETAILS



There were 14 separate locations that required kick out details that were not present



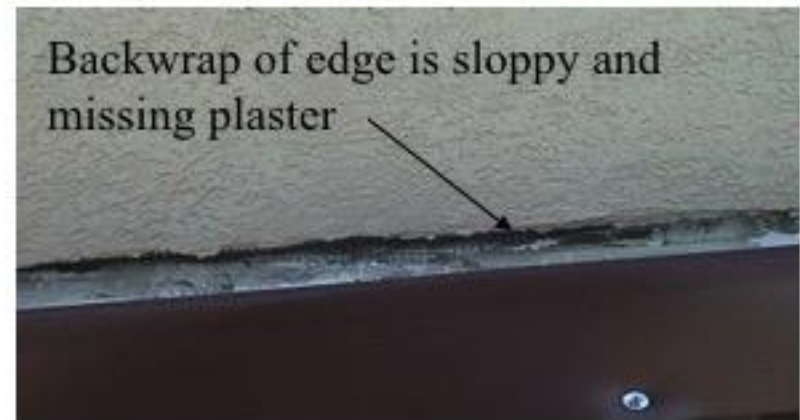
# Details of Kickouts



Main roof ending in stair tower wall  
No kickout detail



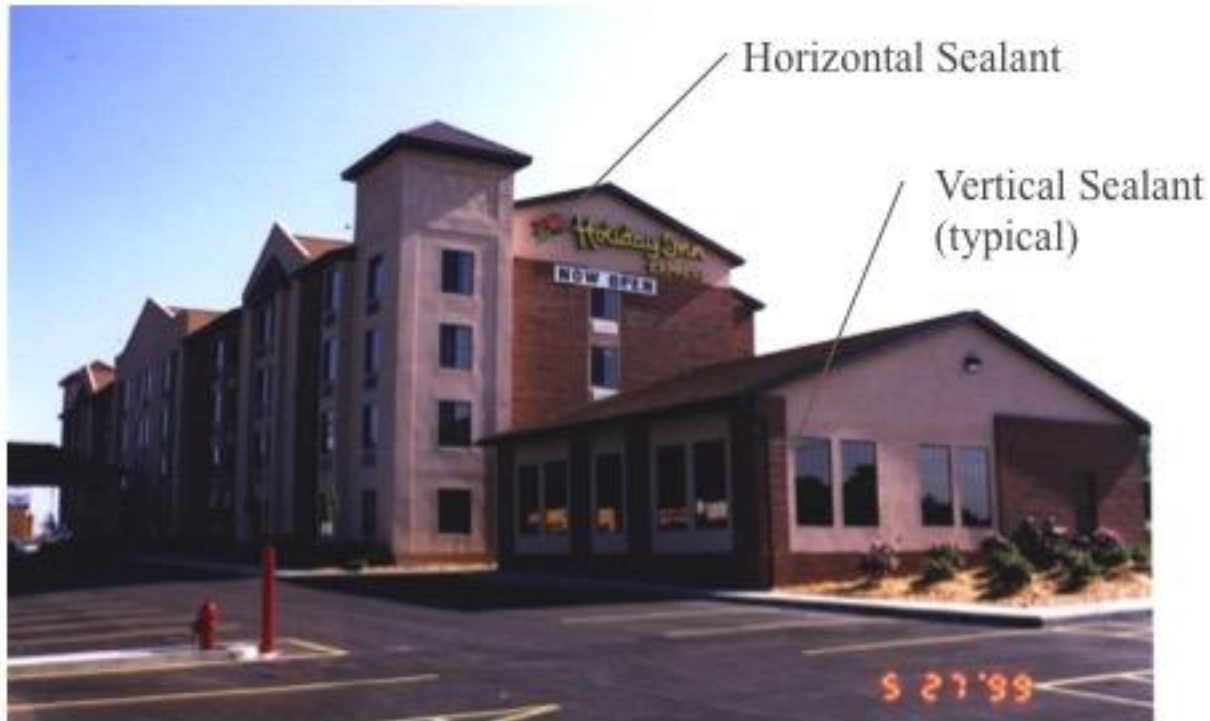
“Mock” kickout at metal roof



Flashing at metal roof



# Main Bldg. And Exercise Bldg.



# Caulking

- Top photo shows major gaps in sealant at windows - this is worse than no sealant
- Bottom photo is typical. There is no sealant at small penetrations



# Caulking at Dissimilar Materials

Vertical sealant has many gaps and no bonding to one or the other edge. No primer, no tooling.



Knife easily slides into gap where sealant not bonded.



Horizontal sealant not present. No space for backer rod and sealant. This is up high and not easy to inspect.



# Bottoms of Walls

- Top photo shows EIFS held off grade. Check for backwrapping (not on this job)
- Bottom photo shows EIFS tight to sidewalk. This will eventually buckle and spall.



# Two final items

- On end walls at the top of the brick the EIFS was simply discontinued and begun again leaving a line that was “gooped” with some silicone. Hard to find since there was a sign to cover it up.
- This detail is very common. Parapets are simply ended with no counterflashing. The cap flashing is caulked to the wall. This area was very wet all the way to into the roof insulation.

