“Primary Concerns and Defects”
Primary Concerns and Defects:

- Home Inspector Observations:
  - Where to Look.
  - What to Look For.
  - What Observed condition may mean.
Primary Concerns

- The points to be inspected per the InterNACHI standards are the locations where indications of concerns can be found.
- These points of Primary Concern are the same for all of the types of stucco that we have discussed.
- These points of Primary Concern are also valid for other wall cladding materials.
Observations: Primary Concerns

- Windows, doors
- Interfaces
  - Roof (kick-outs)
  - Balcony, porch & deck
  - Dormers
  - Chimney enclosures
- Features
  - Quoins
  - Water tables, cornice
  - Eyebrows and trim

- Penetrations
  - Electrical
  - Cable, telephone
  - AC
  - Water
- Attachments
  - Handrails
  - Signs
  - Lighting
Observations: Weather Tightness

- Joints where needed
  - Floor line
  - Change of substrate
  - Joints in substrate

- Sealants location
  - Windows and doors
  - Expansion joints

- Sealant application
  - Type
  - Shape
  - Backer rod
  - Bonding surface

- Flashing
  - Step
  - Kick-out
  - Balcony, decks & end dams
  - Chimney
  - Windows, doors

- Traditional Stucco or EIFS
  - Termination accessories or Back wrapping
  - Lath or Mesh coverage
  - Thickness
  - Attachment or adhesion
1. Kick-out or diverter flashings. These are at the bottom of the step flashings. They divert the water out of the wall and into the gutter.

2. They must be visible and daylight to deliver water on them out of walls.

3. Watch for staining on the walls below where eaves or gutter ends meet walls.
Improper (missing) kick-out flashing
Deteriorated substrate below missing kick-out.
Typical Kickout Flashing Detail
Improper or Missing Deck Flashing

- Deck flashings are often incomplete and unsealed.
- Even when present deck flashings often are missing end dams.
- All joists and beams must be flashed and sealed where they penetrate traditional stucco, EIFS or DEFS (DA).
- Watch for bulges in EIFS near corners of columns.
- Watch for stains on beam bottoms.
- Are deck beams built as troughs?
Missing deck flashing at beam.
Missing flashing at deck column.

Rotted substrate below improper deck flashings.
Deck beam was built as an open trough with no weatherproofing above the top of the beam; water entered and deteriorated the beam causing the beam to fail giving the sag in the deck beam.
Deck beam was built as an open trough with no weatherproofing above the top of the beam; water entered and deteriorated the beam causing the beam to fail. Traditional stucco system.
Missing flashing at deck beam; note sag in beam.

Deck beam was built as an open trough with no weatherproofing above the top of the beam; water entered and deteriorated the beam causing the beam to fail. Traditional stucco system.
Typical Deck Flashing Detail

Wood Deck Flashing

- Flashing (bucked under moisture barrier behind EPS a minimum 3"
- Backer rod and caulk sealant
- Backwrapped BaseCoat and Mesh
- Drainage Plane created from grooves in EPS, or Plastic Lath, or Tyvek SlioCoatWrap
- TOTAL WALL: Mechanical Fastene
- TOTAL WALL 100% Acrylic Finish

TOTAL WALL

Typical Wood Deck Detail with flashing

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The problem improperly flash deck ledgers.

Deck ledger was not properly flashed on this EIFS clad house; water intrusion deteriorated ledger, substrate and some framing on this 10 year old house in Denver, Colorado.
Windows and Doors not sealed to Traditional Stucco or EIFS or DA.

- All EIFS manufacturers and EIMA details call for EIFS to be sealed to window and door frames.
- Almost all One-Coat-Stucco manufacturers and the Northwest Walls and Ceiling Bureau’s Stucco Resource Guide call for Traditional Stucco to be sealed to window and door frames.
- Most call for drainage provisions at window and door heads.
Damage below unsealed joint at window
Improper weatherproofing of window in Traditional Stucco.

If the substrate (OSB) is visible there is a problem.
Typical Moisture Drainage EIFS at Window Head
Typical EIFS to Window Jamb Details

Diagram showing the typical EIFS to Window Jamb Details.
Typical MD-EIFS Window Sill Detail
Parapet walls with no cap flashing.

- Typically, EIFS & Traditional Stucco are not to be on flat surfaces; they are not roofs.
- Water can seep through the flat surface of the stucco.
- Flat surfaces are also more subject to impact damage.
Cracked and flaking HCS on bullnose parapet.
Typical Parapet Cap Flashing PB Barrier
Delamination

- In EIFS, EPS can delaminate from substrate.
- EIFS lamina can delaminate from EPS board.
- Delamination will typically show as a bulge in the wall.
- Delaminated EIFS is loose and springy; it will usually ripple when tapped.
- Can indicate deteriorated substrate or failed adhesive; further destructive investigation is indicated.
Bulges in delaminated EIFS can show edges of EPS boards.
Floor-line buckling

- Floor line buckling occurs because the floor-line expansion joint was omitted.
- Floor line buckling is caused by cross grain shrinkage of dimensional wood framing members.
  - Typically occurs one time in a house in the first year or two of the house’s life.
Floor-line buckle in EIFS.
Floor Line Expansion Joint in Wood Framing
Incomplete backwrapping of EIFS.

- There should be no exposed EPS board or mesh on an EIFS installation.
- At grade this helps prevent wicking and termite infestation; EIFS must be kept above grade 6 to 8 inches.
- At higher locations on a home it helps prevent water intrusion.
Improper termination of Traditional Stucco at foundation walls.

- There should be no exposed substrate or sill plates at the bottom of the walls.
- The traditional stucco should lap the top of the foundation by at least 1 inch.
- At grade this helps prevent wicking and termite infestation; traditional stucco must be kept 4 inches above grade.
- At higher locations on a home (such as above low roofs) this helps prevent water intrusion.
Incomplete Backwrapping

Exposed mesh where base coat on back wrap is incomplete.
HCS does not lap top of foundation or protect OSB substrate.

OSB is exposed below HCS and HCS does not lap top of foundation wall.
EIFS Laps Top of Foundation Wall

DETAIL 13

TYPICAL TERMINATION AT FOUNDATION

- APPROVED SHEATHING
- TEC AQUASTOP™ WEATHER RESISTIVE BARRIER
- TEC BASECOAT/ADHESIVE TROWELED VERTICAL
- GROOVED OR FLAT EPS INSULATION BOARD
- TEC REINFORCING MESH
- TEC BASE COAT
- TEC FINISH

NOTES: MUST TERMINATE MINIMUM 8" ABOVE GRADE.
Horizontal surfaces on bands.

- Horizontal surfaces on EIFS and Real Stucco bands are subject to impact damage and finish delamination.
Flaking of finish on EIFS bands.
Incomplete stucco or damaged stucco.

- Often EIFS or Real Stucco is not properly completed in hard to get at areas.
- Both EIFS and Real Stucco can be impact damaged; although it is harder to damage Real Stucco.
- Bird prefer EIFS but I have seen bird damage to Real Stucco.
Damage to EIFS where it was touching patio slab.
If you see fungi or mushrooms growing out of a crack further investigation is needed.

Mildew can grow on the surface and may not be a significant problem other than ongoing maintenance of periodically cleaning the surface.
Fungi growing out of stucco window joint.