

## Water Penetration Investigation

Air Tamarack Inspection Protocol

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## Water Penetration Survey

- We perform these investigation in a step wise fashion – we need to determine how the walls in the house were built and their condition.
- We start my doing a careful visual look at the entire house both inside and outside – this can take us one to two hours.
- This type of investigation from start to finish can take 4-6 hours.

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## Water Penetration Survey

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- We pull up carpet near outside walls to look for evidence of water penetration.
- We next try to perform non-destructive moisture testing if possible
- If non-destructive testing will not work we will perform moisture testing thru the gypsum wallboard.
- If moisture damage is suspected we will want to confirm this by opening up the wall in one or two suspected areas.

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## Water Penetration Survey

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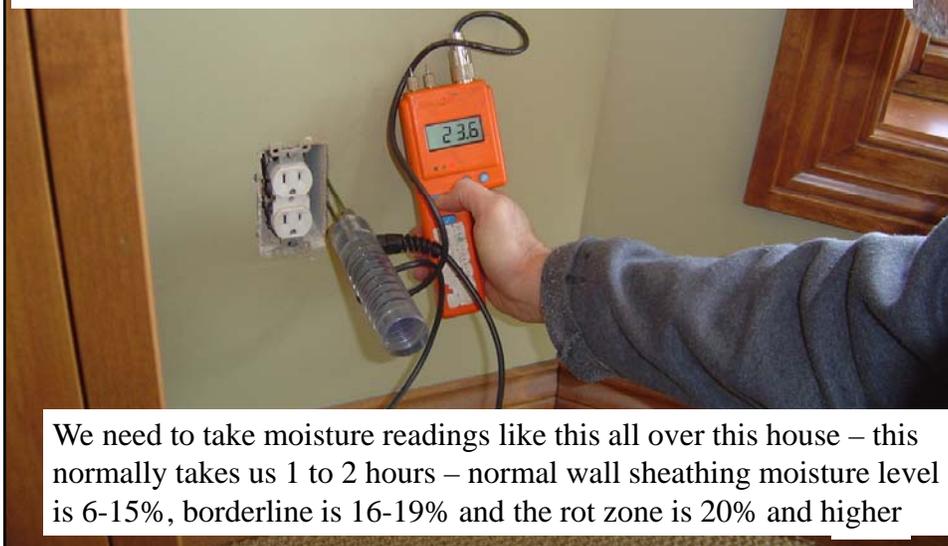
- How far this type of investigation will go depends on what we are finding.
- We do not cut holes in walls if the interior conditions are dry or we do not expect to find damage.
- With brick it is difficult to cut holes in the walls from the outside – cutting the gypsum board is much easier and less damaging to the house.

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Carpet near exterior walls is pulled up and we look for evidence of water penetration as can be seen below which is showing evidence of water penetration – notice the discoloration in the carpet and in the subfloor



Moisture readings are taken beside electrical boxes – this method of testing doesn't work if the electrical box has a sealed flange around it. Most houses do not have sealed electrical boxes and this testing method works well.



If we can't take moisture readings beside electrical boxes we would like take readings directly above the base wood trim as shown below:



This testing leaves two holes about 1/8<sup>th</sup> inch is size in the gypsum wallboard – the holes can be filled in with putty to try and match the paint

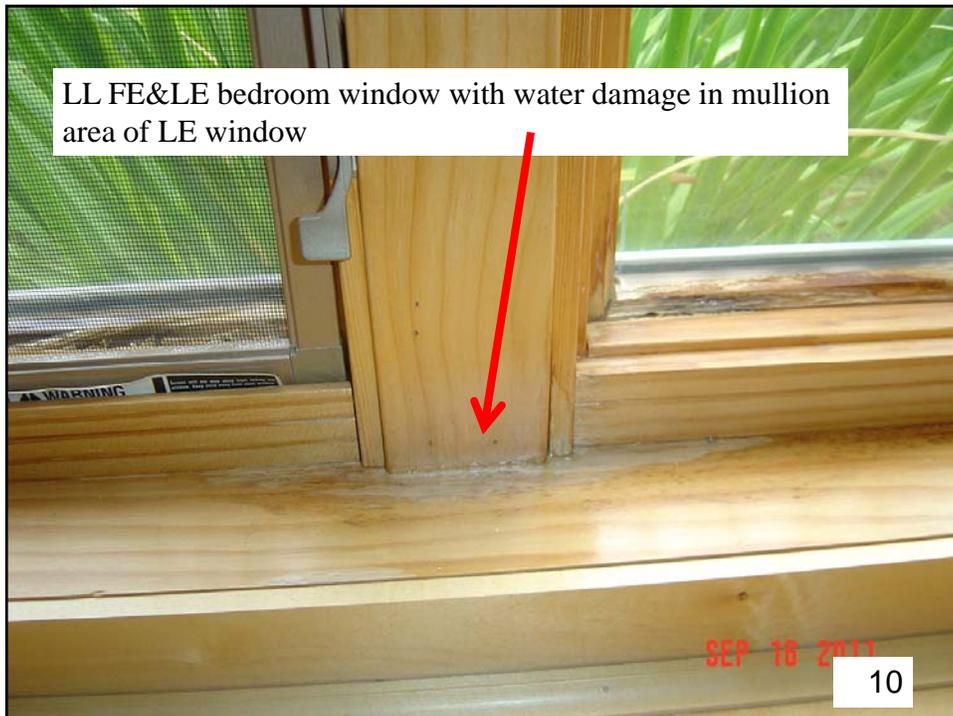
This testing leaves two hole as can be seen here



We also perform moisture testing around windows.



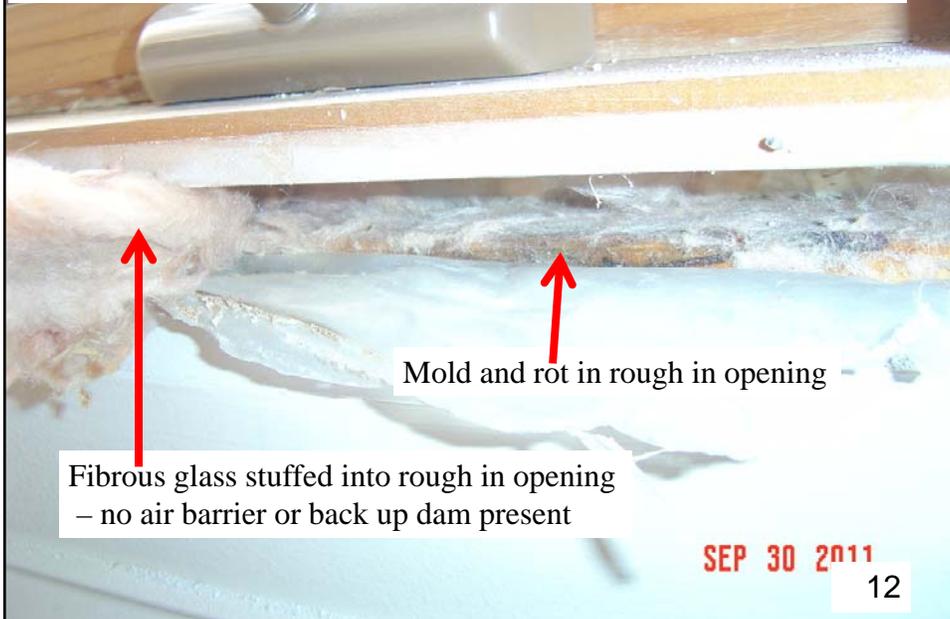
LL FE&LE bedroom window with water damage in mullion area of LE window



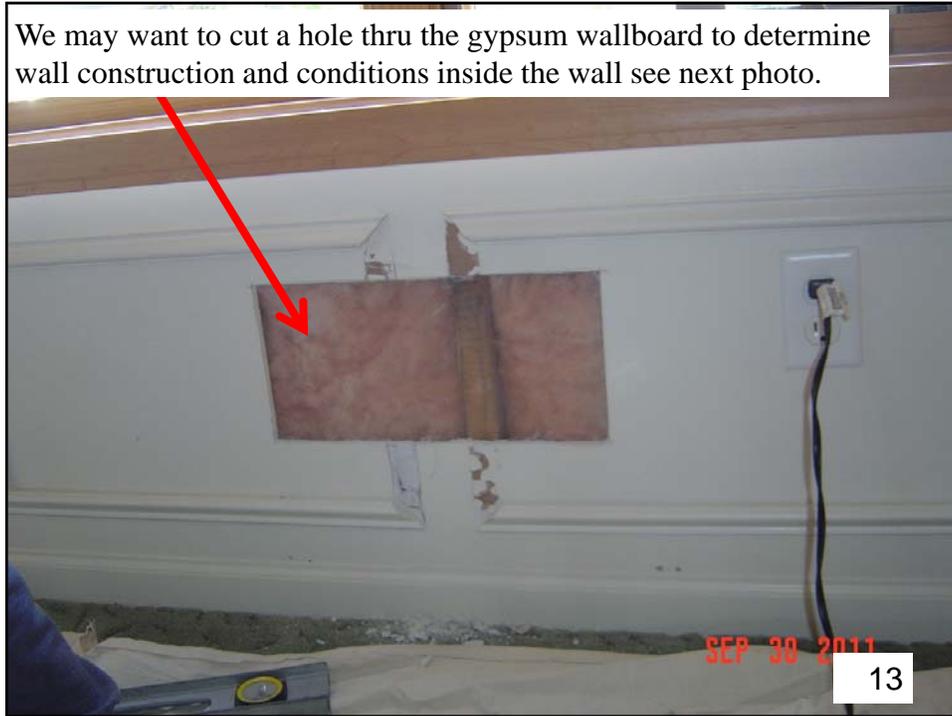
At one or two windows we may want to take the wooden trim off around the window to determine flashing methods and moisture in the wall assembly



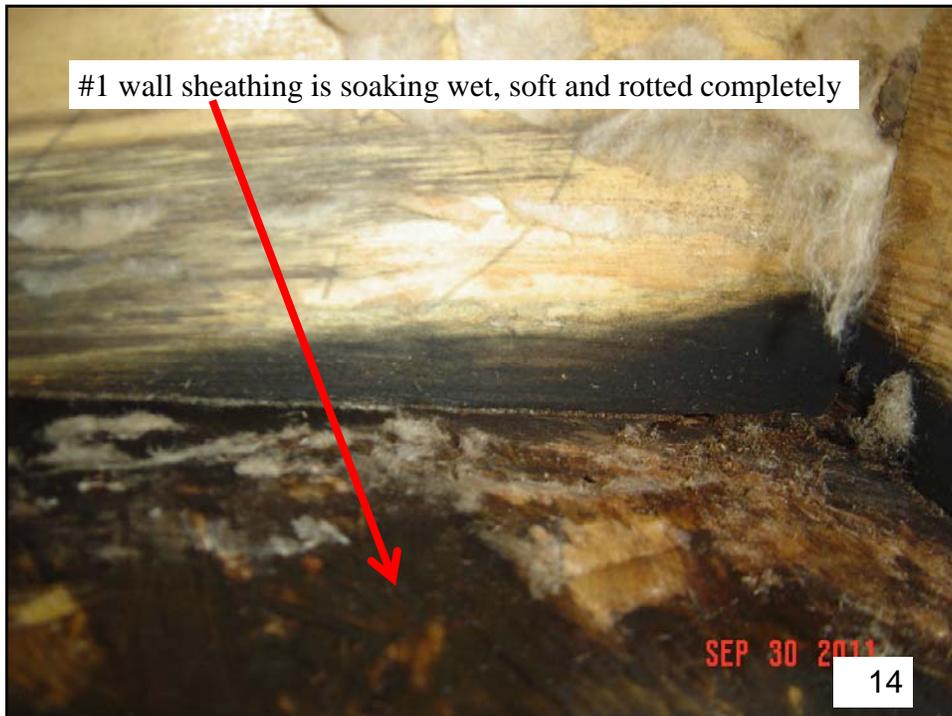
Opening up the wall around a window can tell us a lot about what is going on inside the wall.



We may want to cut a hole thru the gypsum wallboard to determine wall construction and conditions inside the wall see next photo.



#1 wall sheathing is soaking wet, soft and rotted completely



#4 wall sheathing below this window is in the rot zone



#4 a lot of slop mortar is present blocking drainage between the brick and the sheathing



## Water Penetration Survey

- We will patch and make weather tight all opening we make in the walls
- Any cuts in the gypsum wallboard will be discussed with the homeowner before the cuts are made.
- If we cut thru the gypsum wallboard we will temporarily patch the gypsum wallboard and help prevent mold contamination in your house.
- The homeowner will need to hire a handyman to refinish the gypsum board and paint it.

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