

EXTERIOR

WALL COVERING

- Type: Horizontal and vertical application of vinyl sidings
- Conditions:

1- The procedure of installing in some sections of the house was not according to the normal standards such as using staples in the north east corner.

1- There were some holes in the cladding which could lead to water ingress to the house.

3- Some parts were tightly fastened which did not leave any space for expansion and contraction and led to wavy appearance.

1- The wood siding located in the north-east side fireplace wood storage of the house were rotted

2- Some parts of the claddings were deformed.

3- Perimeters of the two hose bibs in east and south side were not sealed.

- *Recommendations:*

- 1- Change or seal the parts with holes also seal around any penetration.
- 2- Change the deformed sections which may lead to water ingress problem.
- 3- Check the building envelope for any hidden damages due to moisture or water ingress caused by the mentioned deficiencies.
- 4- Investigate further for probable wood siding in the east side covered by vinyl siding which also might have been rotten.



ENTRANCE DOORS

- Conditions: Some parts of the weather strip were worn out.

- *Recommendations:* Install new weather strip around the door for heat and energy saving.

WINDOWS

- Type: Single coated aluminum sliding windows for interior and storm windows

FASCIAS, EAVES, SOFFITS, AND TRIMS

- Conditions:
 - 1- Fascia boards are covered with color painted metal and the cover in the south-west corner is missing. The visible portion of the fascia board showed wood damage due to rot.
 - 2- Soffits in the west side at the south-west corner are missing.
 - 3- Soffits in the south side at the south-west corner were not connected with the approved installation procedures (with random screw to the a base board which also showed no soffit ventilation)
 - 4- The wooden trims around windows were not well maintained, had cracks, and grains were almost visible.
 - 5- There were also some stains due to the water running under the trims over the vinyl cladding.



- *Recommendations:*
 - 1- Install the missing fascia's cover and soffits.
 - 2- Install new trims around the windows and keep them well maintained.
 - 3- Check for any hidden damages such as rot due to water penetration to the fascia and behind the cladding by a building envelope specialist.

FLASHINGS

- Condition:
 - 1- Drip cap between the two applications of the siding in most of the cladding were missing which could lead to water ingress to the house.
 - 2- Most of the windows did not have appropriate flashings with the required end dams.
- *Recommendations:*
 - 1- Install drip cap between the two type applications.
 - 2- Install proper flashings over the windows to prevent water ingress behind the cladding.
 - 3- Re-seal windows and doors perimeters to prevent water ingress behind window frames.
 - 4- Check for any hidden damages due to the mentioned deficiencies.



DECKS, PORCHES, BALCONIES, AND PATIOS

- Conditions:
 - 1- Balcony does not have drain, and it's also covered with carpet (wind rain will drop in the balcony).
 - 2- The connection of the guard's posts to the landing deck (landing for the stairs to the second floor) could cause water migration underneath.
 - 3- The entrance porch showed change in the operational procedure (due to the electrical outlet over the wall).
 - 4- Structural deficiencies will be covered in the structure section.
- *Recommendation:*
 - 1- Install proper drain and check for waterproof membrane or indoor outdoor carpet covering.
 - 2- Investigate for probable hidden damages by a specialist due to the previous water spillage and leakage either in the balcony or in the landing deck.
 - 3- Investigate for any problem or hidden damages which might have been the cause for the change in operational procedure of the entrance porch.



SITE DRAINAGE

- **Type:** There was a shared storm sump (or shared storm inspection chamber) located in the south west corner of the property, and concealed drain tiles.
- **Condition:** the water flow in the storm sump (comparing the two shared houses) showed almost no flow from the house even in the rainy day of inspection.
- **Recommendation:** In camera inspection of drain tiles for their presence, continuity, and operation is required.



LANDSCAPING AND LOT GRADING

- **Condition:**
 - 1- The grading in the south side (asphalt drive way) was toward the house.
 - 2- Soil (covered with grass and flowers) in the north and west sides adjacent to the house did not have enough clearance to the wood frames.



3- Asphalt finished level in the east side did not have enough clearance to the wood frames, has settlements, cracks, and sloped toward the house.



4- Drain pit in the south-east corner of the house (under the stairs) was not well maintained and was full of substances.



- **Recommendation**
 - 1- Slope the south side correctly and toward the drain pit.
 - 2- Clean the drain pit, check for its pipe connection to the storm sewage line, and confirm its operation.
 - 3- Check for any probable clogged pipe due to the conditions of the drain pit.
 - 4- Keep 150 mm clearance from the finished ground level to the bottom of wood framing members all around the building.
 - 5- Excavate the soil in the west and north sides of the building and fill the space

with crushed stone or other clean coarse granular material for proper operation of drain tiles and directing the water away from the house.

6- Repair the settlement and cracks in the east side asphalt and slope it away from the house.

7- Remove the planter from the south side of the house.

8- Check for any water and moisture damage to the wood framing, sheathing, and other conforming wood members of the house due to evidence of rot in about 5 feet along the east side of the house, existing planter, and etc. by a building envelope specialist.

DRIVEWAY

- Condition:
 - 1- Some cracks and settlement in the asphalt driveway and walkway in the east side of the building
 - 2- Some settlements in the asphalt driveway in the south side of the building
- *Recommendation:* Repair the settlement and cracks (by also refilling and compacting the sub grade).



WALKWAYS

- Conditions:
 - 1- Some cracks in the concrete side Walk way in the south side of the building, and also between the concrete and the exterior wall.
- *Recommendation:* Repair the cracks to prevent them from becoming deeper which would cause water seepage toward the building and also cause trip hazards.



GARGE DOOR OPENINGS & THEIR SAFETY STOPS

- Not inspected due to the limited access

STAIRWAY

- Conditions:
 - 1- The stairs did not have appropriate and minimum size run.
 - 2- It did not have appropriate handrail and guard over landing due to the minimum height and maximum openings.
 - 3- It was not built by approved confirming material.
 - 4- The top plate of the post did not have proper connection to underside of the joists.



- 1- *Recommendation:* Check the stair case by a licensed structural contractor before use for safety reasons.

OTHER RECOMMENDATION:

- 1- Seal around all penetration like hose bib valves and etc.
- 1- Check the building envelope by a building specialist for any hidden damages due to the mentioned deficiencies.
- 2- Check the root of the west side tree for any related problems to the foundation, keep the tree trimmed to prevent any damage to the siding, premature failure of the roof, and prevent any animal activity over the roof and attic.