wI've compiled the top 10 validations that we would want to consider for kicking off the elevation certificate (EC) data extraction / validation:

1. **Property Address** -  Should match what is on the application.  Additional insights:  '123 Main Street' and '123 Main St' would be considered a match.  City names may vary, but can be resolved by reviewing zip code lookup on [USPS](https://tools.usps.com/zip-code-lookup.htm?citybyzipcode)website.
2. **Diagram Number** - When present, this should match what is on the application.
3. **Total enclosure size and flood vents** - For Diagrams 6-9 only.  The square footage of the crawlspace/enclosure (A8a) and the garage (A9a), should align with the total enclosure size on the application.  Similarly, the total size of the vents should align with the application.
4. **CBRS / OPA** - If the EC indicates the property is in a CBRS/OPA, underwriting must obtain construction/community documentation verifying the building's eligibility.
5. **Building Elevations are Based On** - An EC that is completed based on Construction Drawings or a Building Under Construction is only valid for use with an application that describes the building as under construction.  A Finished Construction EC is required when the policy is insuring a building that is not under construction.
6. **Signature** - When Section C measurements are used, Section D must include the surveyor's name, license #, and have a signature.  When Section E measurements are used, Section F must be completed and include the representative's name and signature.   When Section H measurements are used, Section I must be completed and include the representative's name and signature.
7. **Elevation Logic (Section C) - Only applicable when the application is using Section C measurements** 
   1. When the application shows that Section C elevations are used, the elevations on the application should match the EC.
   2. **C2a:** For building diagrams 1, 1a, 3, 6, 7, and 8.  The top of bottom floor elevation should be within 2 feet of the LAG, but not below the LAG.   For building diagram 1b, the elevation -> (top of bottom floor) should be within 6 feet of the LAG, but not below the LAG.  For building diagrams 2, 2a, 2b, 4, and 9, the elevation should be below the LAG.  For diagram number 5, the elevation should be within 20 feet of the LAG, but not below the LAG.
   3. **C2b**: For diagrams 2, 4, 6, 7, 8, and 9.  The top of next higher floor should be present, and the elevation(Top of next higher floor) should be greater than the top of bottom floor (C2a).

My Logic: if Section C -> variables != None or “” then consider this section’s measurements are being used.

* 1. The LAG (**C2f**) should be a lower elevation than the HAG (**C2g**).
  2. If the elevation difference between either the top of bottom floor (C2a) or the top of next higher floor (C2b), in comparison to the Lowest Adjacent Grade (C2f) is >20 feet, these should require an underwriting review as such a scenario is extremely rare. (Done)

1. **Elevation Logic (Section E) - Only applicable when the application is using Section E measurements**
   1. When the application shows that Section E elevations are used, the elevations on the application should match the EC. (Done)
   2. **E1b**:  For building diagrams 1, 1a, 3, 6, 7, and 8.  The elevation should be within 2 feet of the LAG, but not below the LAG.   For building diagram 1b, the elevation should be within 6 feet of the LAG, but not below the LAG.  For building diagrams 2, 2a, 2b, 4, and 9, the elevation should be below the LAG.  For diagram number 5, the elevation should be within 20 feet of the LAG, but not below the LAG. (Done)
   3. **E2**.  The elevation should be present for building diagrams 6, 7, 8, and 9.  The elevation should be a higher value when compared to E1a.   (May require testing.)
   4. If E1a, E1b, or E2 is >20, these should require an underwriting review as such a scenario is extremely rare. (Done)
2. **Elevation Logic (Section H) - Only applicable when the application is using Section H measurements**
   1. When the application shows that Section H elevations are used, the elevations on the application should match the EC.
   2. **H1a:** For building diagrams 1, 1a, 3, 6, 7, and 8.  The top of bottom floor elevation should be within 2 feet of the LAG, but not below the LAG.   For building diagram 1b, the top of bottom floor should be within 6 feet of the LAG, but not below the LAG.  For building diagrams 2, 2a, 2b, 4, and 9, the top of bottom floor should be below the LAG.  For diagram number 5, the top of bottom floor should be within 20 feet of the LAG, but not below the LAG.
   3. **H1b:**  For diagrams 2, 2a, 2b, 4, 6, 7, 8, and 9.  The top of next higher floor should be present, and the elevation should be greater than the top of bottom floor.
   4. If H1a or H1b is >20, these should require an underwriting review as such a scenario is extremely rare.
3. **Machinery and Equipment Logic - Only applicable if the application indicates the machinery and equipment is elevated above the first floor:**
   1. For diagrams 1, 1a, 1b, and 3
      1. Section C: C2e should be equal or greater than C2b.  If C2b is not present, then it must be at least 8 feet higher than C2a.
      2. Section E:  E4 should be at least 8 feet higher than E1b.
      3. Section H:  H2 should be marked 'Yes'
   2. For diagram 2, 2a, 2b, 4, 6, 7, 8 and 9
      1. Section C:  C2e should be equal to or greater than C2b.
      2. Section E:  E4 should be equal to or greater than E2.
      3. Section H:  H2 should be marked 'Yes'
   3. For diagram 5:
      1. Section C:  C2e should be equal or greater than C2a.
      2. Section E:  E4 should be equal to or greater than E1b.
      3. Section H:  H2 should be marked 'Yes'
4. For Diagrams 6, 7, 8, and 9 the total number and size of the vents on the EC (Sections A8 + A9), should match what is on the application.

Once the elevation certificate (EC) data extraction / validation is in place, we can begin discussions on how underwriting evaluates the photographs to ensure it aligns with both the EC and the application.