Is that a COMPLETE Panel Number?

or Common Elevation Certificate Errors and What you can do to fix them… It’s a CRS thing.
Community Rating System

- Rewards Communities for Higher Standards with Insurance Premium Discounts

- 6 Basic Requirements for Class 9
  - In the NFIP Regular Phase for 1 year
  - Must be in full compliance with the NFIP regulations
  - Must maintain FEMA Elevation Certificates on new buildings or substantial improvements in the SFHA
  - Address repetitive loss properties in the community
  - Maintain flood insurance where required on community-owned properties
Why are Elevation Certificates (ECs) a PREREQUISITE???

- An accurate EC is the single most important source of information for flood insurance rating!
- NFIP Regs require elevation data, CRS requires ECs!
  - Communities must maintain a record of the lowest floor elevation for new or substantially approved buildings in SFHA [44CFR §60.3(b)(5)(iii)]
  - Communities must make building elevation data and related information available for public inspection and flood insurance rating. [44CFR §59.22(a)(9)(iii)]
The Sticky Wicket…
The Pesky Detail… Elevation Certificates must be CORRECT!

*The CRS considers accurately completed Elevation Certificates to be evidence of a community’s full compliance with the minimum requirements of the NFIP. Therefore, Elevation Certificates that are not accurately completed are taken as an indication that the community may not be in full compliance, and continued participation in the CRS may be an issue.* - CRS Coordinator’s Manual, Section 311
ISO Evaluates ECs for CRS in Two Ways

Credit
- ISO reviews all the ECs submitted using CRS EC Checklist.
- At Cycle Verification, credit is provided based on the first look.
- If only of a portion of submitted ECs are correct, *credit is prorated*.

Example:
38 possible points $\times \left( \frac{12 \text{ correct ECs}}{20 \text{ total ECs}} \right) = 22.8$ points.

- No redo's on this. This is the score.
- Feedback is provided on all ECs – *CRS Elevation Certificate Evaluation Report*.

Compliance!!!
- To stay in the CRS, at least 90% of the community’s ECs MUST be correct, e.g. have no problems.
  - *If less than 90% pass, the community MUST correct them to stay in the CRS.*
- ECs reviewed with each Annual Certification.
- Compliance evaluated at Cycle Verification
**CRS Elevation Certificate Evaluation Report**

For internal use only. Protected by the Privacy Act of 1974

<table>
<thead>
<tr>
<th>Community: Denver</th>
<th>NFIP #:080046</th>
<th>Report Date: 6/7/2018 6:58:54 PM</th>
<th>Round: 1</th>
</tr>
</thead>
</table>

**Codes:**
- C: Culled
- R: Residential
- NR: Non-Residential
- NA: Not Applicable
- P: Possible

<table>
<thead>
<tr>
<th>Address</th>
<th>Culled Certificate</th>
<th>Diagram #</th>
<th>Res/Non-Residential</th>
<th>Flood Zone</th>
<th>BFE</th>
<th>Lowest Floor Freestand</th>
<th>Mach/Equip Freestand</th>
<th>Att Garage Freestand</th>
<th>Enclosure Size</th>
<th>Noncompliant?</th>
</tr>
</thead>
</table>

**Error Key - Detailed Explanations**

<table>
<thead>
<tr>
<th>ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>If Diagram# = 1, 1a, 1b, or 5, Area of Crawl must be blank</td>
</tr>
<tr>
<td>24</td>
<td>If Diagram# = 1a, 1b, 2, 5, or 7, Difference between C2a and C2b cannot be less than 5</td>
</tr>
<tr>
<td>47</td>
<td>Map/Panel Number is not the correct format.</td>
</tr>
<tr>
<td>58</td>
<td>C2a_TopOfBottomFloor must be lower than C2f_LowestAdjacent when A7_BuildingDiagramNumber = 2, 2A, 2B, 4, or 9.</td>
</tr>
<tr>
<td>153</td>
<td>C1_BuildingElevationLevels cannot be blank</td>
</tr>
</tbody>
</table>

**Non-Compliance Key - Detailed Explanations**

<table>
<thead>
<tr>
<th>ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>The Lowest Floor for compliance is below B9. (Base Flood Elevation).</td>
</tr>
<tr>
<td>P11</td>
<td>C2.e. (machinery and/or equipment) is not elevated to at least the Base Flood Elevation level.</td>
</tr>
</tbody>
</table>
Common Errors

Can you believe how nitpicky that dang Panel Number is???
Common Errors - Is that a COMPLETE Panel Number???

Map Panel number must be 10 digits – 6 digit CID+ 4 digit Panel number
Common Errors – Building Diagram

- Double check the selected Building Diagram.

- Make sure the data entry makes sense based on the Building Diagram used.
  
  • For example on Diagram 2A, Item C2a, Top of Bottom Floor must be LOWER than Item C2f, Lowest Adjacent Grade.

- Diagrams 5 and 6 not common in Colorado. (Piers, Posts, Piles, Columns)
  
  • Exception: Manufactured homes with skirting that is only decorative are Diagram 5
Common Errors – Crawlspaces, Garages, Flood Vents

– At Items A8 and A9, if one row is filled in, there should be answers for EVERY row.

– If Item A9 is completed, so must be Item C2d.

– If you have engineered flood vents:
  • Make sure to include the current certification from the engineer or the ICC Evaluation Service.
  • Also make sure to include the actual coverage area in the notes (it’s usually more than 1 ft²!)
Common Errors – Machinery & Equipment, Building Address

- Item C2.e. must ALWAYS be completed unless the building has NO machinery. Include descriptions and locations in the Comments section.

**SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)**

C1. Building elevations are based on: □ Construction Drawings* □ Building Under Construction* □ Finished Construction
   *A new Elevation Certificate will be required when construction of the building is complete.

   Complete items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.
   Benchmark Utilized: __________________________________________________________________________
   Vertical Datum: __________________________________________________________________________
   Indicate elevation datum used for the elevations in items a) through h) below.
   □ NGVD 1929 □ NAVD 1988 □ Other/Source: __________________________________________________________________________
   Datum used for building elevations must be the same as that used for the BFE.

- a) Top of bottom floor (including basement, crawlspace, or enclosure floor)
- b) Top of the next higher floor
- c) Bottom of the lowest horizontal structural member (V Zones only)
- d) Attached garage (top of slab)
- e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)
- f) Lowest adjacent (finished) grade next to building (LAG)
- g) Highest adjacent (finished) grade next to building (HAG)
- h) Lowest adjacent grade at lowest elevation of dock or stairs, including structural support

- Provide the Building Street Address info on EVERY page.

**SECTION C – COMMUNITY INFORMATION (OPTIONAL)**

<table>
<thead>
<tr>
<th>City</th>
<th>State</th>
<th>ZIP Code</th>
</tr>
</thead>
</table>

**DENVER THE MILE HIGH CITY**

**AECOM**
Crikey, there’s an error…
The Community CAN fix some sections…

- Only Sections A & B
- Do not redline a signed form!
- Use the Correction Form, aka Memo for Correctness and Completion

But NOT others…

- Only the surveyor can change Section C
- Only the property owner or their rep can change Section E

---

**Memo of Review For Correctness and Completion**

The attached FEMA Elevation Certificate has been reviewed by this office. The items noted below are not correct on the attached form and should read as entered on this page.

<table>
<thead>
<tr>
<th>SECTION A - PROPERTY INFORMATION</th>
<th>For Insurance Company Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1. Building Owner's Name</td>
<td></td>
</tr>
<tr>
<td>A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.</td>
<td>Company NAIC Number</td>
</tr>
<tr>
<td>A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)</td>
<td></td>
</tr>
<tr>
<td>A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)</td>
<td></td>
</tr>
<tr>
<td>A5. Latitude/Longitude Lat Long</td>
<td>Horizontal Datum</td>
</tr>
<tr>
<td>A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.</td>
<td></td>
</tr>
<tr>
<td>A7. Building Diagram Number</td>
<td></td>
</tr>
<tr>
<td>A8. For a building with a crawlpace or enclosure(s):</td>
<td>A9. For a building with an attached garage:</td>
</tr>
<tr>
<td>a) Square footage of crawlpace or enclosure(s)</td>
<td>a) Square footage of attached garage</td>
</tr>
<tr>
<td>b) No. of permanent flood openings in the crawlpace or enclosure(s) within 1.0 foot above adjacent grade</td>
<td>b) No. of permanent flood openings in the attached garage within 1.0 foot above adjacent grade</td>
</tr>
<tr>
<td>c) Total net area of flood openings in A8b</td>
<td>c) Total net area of flood openings in A9b</td>
</tr>
<tr>
<td>d) Engineered flood openings?</td>
<td>d) Engineered flood openings?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1. NFIP Community Name &amp; Community Number</td>
</tr>
<tr>
<td>B4. Map/Panel Number</td>
</tr>
<tr>
<td>B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9</td>
</tr>
<tr>
<td>B11. Indicate elevation datum used for BFE in Item B9</td>
</tr>
<tr>
<td>B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)</td>
</tr>
</tbody>
</table>

Local Official's Name
Title
Community Name
Telephone
Signature
Date
Comments

[https://crsresources.org/300-3/](https://crsresources.org/300-3/)
Best Practices
Best Practices – Recommendations for Owners/Submitters

− Don’t pay the surveyor until the community approves the EC. There’s no leverage to get corrections once the surveyor has been paid.
− Submit a draft EC BEFORE its signed to community comments.
− ALWAYS include pictures; show the whole building, each side, equipment, vents.
− ALWAYS use the comments sections to provide additional details needed to clarify any.
Best Practices for Communities

− Get a draft copy of the EC before it’s signed. Provide comments and have them resubmit.
− Don’t submit ECs to ISO that you don’t need to submit!
  • Only submit ECs for insurable structures (not detached garages, sheds, etc.)
  • Only submit ECs for new construction or Substantial Improvement
  • ISO will review all ECs they receive; don’t set yourself up for more work.
− File management is important for your own sanity.
  • Keep ECs not needed for CRS separate.
  • Use a descriptive file naming convention.
− Sign up to get the NFIP/CRS Update Newsletter. https://crsresources.org/100-2/newsletter/
Let's chat...
a
aka Questions???
May the EC review odds be ever in your favor!

Thank you!

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Senior Engineer
AECOM
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